

Transport and Environment Committee

10.00am, Tuesday, 27 October 2015

Roseburn to Leith Walk Cycle Route and Street Improvement Project – Public Consultation for the Preliminary Design

Item number	7.9
Report number	
Executive/routine	
Wards	6 - Corstorphine/Murrayfield 11 - City Centre

Executive summary

The creation of a 'family-friendly' cycle route between Roseburn and Leith Walk is a key action within the Council's Active Travel Action Plan.

This high profile project would provide a step change in the quality of east-west cycle access through the city centre. It would offer a high quality cycle route, with sections of protected cycle lanes on main streets. This would link with similar planned facilities on Leith Walk, George Street and with the extensive network of off-road paths in north Edinburgh (accessed at Roseburn). It would also improve the street environment for other road users, especially pedestrians.

Following initial development of route options and a series of stakeholder engagement workshops, which reviewed the project objectives and preliminary design route options, a preliminary detailed design of the preferred route has been completed. The proposed route comprises over four kilometres of improvements and has been designed to:

- deliver a high quality cycle route (including significant sections of protected cycleway where cyclists are segregated from motor traffic) providing safer, more direct and convenient access by bike to key destinations in the city centre;

Links

Coalition pledges	P43 , P45 and P50
Council outcomes	CO5 , CO7 , CO8 , CO9 , CO18 , CO19 and CO22
Single Outcome Agreement	SO1 , SO2 and SO4

- improve cycle connectivity across the city, by being fully integrated with the existing cycle/pedestrian network and completing a significant missing link;
- integrate with planned segregated cycle facilities on Leith Walk and streetscape improvements along George Street; and
- Improve conditions for walking whilst improving the street environment

This report seeks authority to proceed with public consultation for the proposed improvements.

Roseburn to Leith Walk Cycle Route and Street Improvement Project – Public Consultation for the Preliminary Design

Recommendations

- 1.1 It is recommended that Committee:
 - 1.1.1 notes the content of this report and the preliminary design; and
 - 1.1.2 approves commencement of public consultation on the scheme.

Background

- 2.1 In 2010, the Council approved its [Active Travel Action Plan](#) (ATAP). This seeks to build on the high level of walking in Edinburgh, and the growing role of cycling. It set targets of 10% of all trips and 15% of journeys to work being made by bike by 2020. These targets are incorporated in the Local Transport Strategy (2014-19).
- 2.2 Over the past three financial years, the Council has invested £2.2M in new cycle infrastructure, supplemented by £2.9M from the Scottish Government via the Sustrans Community Links fund and the Cycling Walking and Safer Streets fund. The Council has secured a further £3.6M from the Scottish Government to help deliver cycling and walking improvements on Leith Walk and has recently been awarded an additional £0.8M in Community Links funding for the 2014-15 financial year.
- 2.3 The 2011 Census recorded just under 9,500 Edinburgh residents commuting by bike, up 56% from 2001 (4.8% of Edinburgh resident commuters - 2011 Census). Automatic counts indicate a further 20% increase in people riding bikes from 2011 to 2014.
- 2.4 The ATAP includes a wide range of actions aimed at achieving its targets. A key element is the creation of the 'Family Network' of routes suitable for people who are less confident riding a bike. This is now being marketed as 'Edinburgh's QuietRoutes'.
- 2.5 The ATAP sets out priorities for developing the QuietRoutes. These seek to fill gaps in the city's existing off-road network, which is largely based around former railways, and to create connections to key destinations, most importantly the city centre. The network is primarily aimed at encouraging cycling, but most sections are also walking routes.

- 2.6 One of the most important gaps in the current network is an east-west link through the city centre from Roseburn to Leith Walk, via George Street.
- 2.7 Roseburn is at the junction of several pedestrian/cycle routes that converge from North, North West and West Edinburgh. There is currently no route suitable for people who are less confident cyclists from the off road cycle paths that converge at Roseburn through to the city centre and east end.
- 2.8 The Council is in the process of investing in a significant upgrade of provision for both cycling and walking on Leith Walk, and options for a similar redesign of Picardy Place are being considered. However, there is a need to link from these into central Edinburgh area and Waverley Station.
- 2.9 The Roseburn to Leith Walk link would provide a significant improvement in the quality of an east-west cycle access through the city centre. It would offer a high quality route, with sections of protected cycle lanes on main streets linking with similar planned facilities on Leith Walk, George Street and with the extensive network of off-road paths in north Edinburgh as well as routes to west Edinburgh, both accessed at Roseburn (see map in Appendix 1). Building on the existing network of off-road cycle/pedestrian paths, this new link would provide much safer, more direct and convenient city centre access by bike from a large area of the city.

Main report

Work to date

- 3.1 On 3 June 2014, the Transport and Environment Committee approved the appointment of consultancy services for the further development of major cycling and walking projects, including the Roseburn to Leith Walk cycle link.
- 3.2 An external consultant was appointed to undertake the next phase of work to develop the initial route options and to identify a preferred route. The work undertaken to date has included the following:
 - Development of a preliminary project justification report. This forecasts an increase of approximately 90% in cycle use in the corridor served by the route, amounting to a 16% increase in overall cycle use in the city if this scheme was delivered. A copy of this report is included in Appendix 2.

- Further assessment and review of the initial route options against a range of objectives, including some relating directly to encouraging cycling and other more general factors including benefits for/impacts on other road user groups and economic, streetscape and deliverability factors. Three key locations were assessed:
 1. Roseburn Terrace;
 2. West End including Haymarket Terrace; and
 3. East End, including routes via York Place or Leith Street.
 - Preparation of outline preliminary designs for the three key locations listed above. These were used to undertake traffic modelling and for stakeholder workshops.
- 3.3 An objective setting workshop was carried out with internal Council stakeholders including representatives from the Transport and Planning departments. This workshop reviewed the initial design options at the three key locations, provided input on the objectives and design concepts and undertook further assessment scoring in relation to factors including taxi provision, equalities, loading and servicing, parking, pedestrians, traffic and sense of place.
- 3.4 A series of design workshops were also undertaken with external stakeholders, with representatives including Spokes, Sustrans, Living Streets, and Local Neighbourhood teams, Community Councils, local resident groups, businesses and cyclists. These workshops included a review of the project objectives and outline design options for the key sections of the route and evaluated these designs against the objectives.
- 3.5 Following the workshops a final set of objectives for the proposed route have been developed. A copy of these objectives can be found in Appendix 3.
- 3.6 The draft proposals were presented and discussed at the Transport Forum on 21 August 2015 and at the Active Travel Forum on 3 September 2015. At the latter meeting the issue of a connection from the route to Lothian Road was raised. It was agreed that proposals for such a connection will be developed for inclusion in the project.

Summary of Proposals and Impacts

- 3.7 Based on these objectives and workshop discussions, a preliminary design of the preferred route has been completed. In summary this provides:
- a. A protected cycleway from Roseburn Terrace, along West Coates and Haymarket Terrace, as far as Roseberry Crescent.
 - b. A link via Roseberry Crescent, Grosvenor Crescent, Palmerston Place and Manor Place to Melville Street.

- c. A further section of protected cycleway along Melville Street, with potential for a major public realm project at the junction of Melville Street/Walker Street. This would rely on securing significant external funding.
- d. A link via Randolph Place to Charlotte Square, where protected cycle provision would lead to George Street.
- e. Protected cycleways from George Street to Picardy Place via North St David Street/York Place and to Waterloo Place via South St David Street/Princes Street.
- f. A route linking to Rutland Square and the International Conference Centre area via Coates Crescent and Canning Street.

These proposals are shown on a summary plan in Appendix 1 and are outlined in more detail in Appendix 4.

3.8 Due to its excellent connections into existing and planned cycle routes at Roseburn and Picardy Place, the provision outlined above would dramatically improve conditions for cycling into and through the city centre from many parts of Edinburgh. These include Roseburn, Carrick Knowe, Corstorphine, Gyle, Broomhouse, Murrayfield, Craighleith, Drylaw, Muirhouse, Silverknowes, Davidson's Mains, Pilton, Leith Walk, Pilrig and Leith. There would also be improvements in connections from other areas such as Lochend, Restalrig and the Southside/Newington via the connection to Waterloo Place.

3.9 Delivering the project as set out above will have some impacts on other road users. Key impacts are as follows:

- a. The need for removal of a westbound bus lane from West Coates and of both bus lanes on Haymarket Terrace. Surveys and modelling suggest that the impacts of these changes will be modest and work is underway to assess potential means of avoiding/minimising additional delays to eastbound buses on Haymarket Terrace.
- b. The need to relocate the taxi rank for Haymarket Station. There are three options for this relocation
 - eastwards towards the main Haymarket Junction.
 - westwards to immediately west of Haymarket Yards.
 - to Dalry Road.

These options are being discussed with taxi operators and other stakeholders.

- c. The need to remove central parking from Melville Street. This will result in a significant reduction in parking spaces on the street. However, as part of the Parking Action Plan it is proposed to introduce shared use parking bays in this area, and as part of this process to convert a number of lengths of yellow line into parking bays. Shared use parking for this area will be taken forward in parallel with the proposed cycle route meaning that the overall net loss of parking is expected to be substantially offset by additional parking being provided on surrounding streets such as Walker Street, Manor Place and Chester Street.

Proposed Consultation

- 3.10 It is proposed to now undertake a full public and stakeholder consultation on the proposals outlined in this report. The public consultation process will include a series of drop in sessions at venues along the route, briefings to local Council ward members, access groups, resident associations and Community Councils. A website and online survey will also be provided to facilitate the submission of responses.
- 3.11 The Council's website and media will be used to enhance awareness of the consultation with as wide a range of the public as possible. Bodies representing public transport, taxi and road freight operators will also be invited to take part. This phase of the consultation is expected to be concluded by the end of 2015.
- 3.12 It is intended to report to the Committee on the outcome of the consultation in early 2016. If the proposed route that emerges from the consultation is approved, a further statutory consultation process will be required as part of the Traffic Regulation Order (TROs) and Redetermination Order (RSOs) requirements. A copy of the proposed programme can be found in Appendix 5.

Funding and Implementation

- 3.13 The Roseburn to Leith Walk route intersects with several other major projects that are at various stages of planning and design, including:
- Leith Walk Improvements;
 - Remodelling of Picardy Place;
 - Resurfacing of York Place footways;
 - St Andrew Square public realm improvements; and
 - George Street public realm improvements.
- 3.14 All these projects are being designed to take account of the Roseburn to Leith Walk proposals.

- 3.15 The current estimated construction cost for the Roseburn to Leith Walk project is approx £9 million. This includes a substantial 'optimism bias' allowance of £2.7 million (44%). This reflects an allowance for unforeseen expenditure and is commensurate with the early stage of development design.

The estimate also includes an allowance of around £1.7M to reconfigure the junction of Melville St and Walker Street, see paragraph 3.6.

It is planned that the route would be constructed in stages over a period of up to four years depending on available budget and linking construction with other projects along the route.

- Stage 1 – Roseburn to Haymarket Terrace
- Stage 2 – Haymarket Terrace to Melville Street
- Stage 3 – Melville Street to Charlotte Square
- Stage 4 – St Andrews Square to Picardy Place/Waterloo Place

- 3.15 Work is underway to assemble a funding package for the project. Subject to further discussions, the following sources of funding are likely to be sought:

- Sustrans Community Links;
- European Union Sustainable Transport Fund; and
- Heritage Lottery or Big Lottery Funding (for Melville Street/Walker Street project).

These would be matched with the funding already budgeted for the various projects outlined in 3.12 and proposed allocations from the Councils Cycling Capital Budget. A copy of the proposed costs can be found in Appendix 6.

- 3.16 Subject to approval of the required TROs and RSOs and other permissions and securing necessary funding, construction of the project could start in the 2017-18 financial year and would be constructed in stages as outlined in 3.14.

Measures of success

- 4.1 The success of the consultation will be measured by the volume and diversity of responses received. Representation is expected from stakeholders, residents, traders and equalities representatives along the proposed route.
- 4.2 This scheme has significant potential to increase levels of walking and cycling in the catchment areas of the route and further afield. The scheme will increase the attractiveness of the route and is expected to increase the numbers of leisure and utility cyclists significantly.
- 4.3 It is proposed to measure levels of use and perceptions of route quality – before and after these routes are implemented.

- 4.4 Given the scale and nature of these projects there is potential for a positive increase in awareness and publicity for cycling in Edinburgh.

Financial impact

- 5.1 The total budget for the design phase of the project to date is £200,000. This consists of £100,000 from the Council's cycling capital budget with the remaining £100,000 being match funded from the Sustrans 'Community Links'.
- 5.2 The cost of the consultation is approximately £20,000. This includes provision of leaflets, public drop in sessions, local community group presentations, and an online survey. These costs are contained within the total budget for the design phase outlined in 5.1.

Risk, policy, compliance and governance impact

- 6.1 The expenditure reported has assisted in the delivery of the Council's Active Travel Action Plan (2010-2020) and in making progress towards achieving the targets it contains. This has also been complementary to a number of other Council policy documents, including the Transport 2030 Vision, the Sustainable Travel Plan and the Open Space Strategy.
- 6.2 There is no significant health and safety, governance, compliance or regulatory implications expected as a result of approving the recommendations of this report.

Equalities impact

- 7.1 An Equalities and Rights Impact Assessment (ERIA) for the Roseburn to Leith Walk cycle route commenced during the initial design phase of the scheme and will be in effect throughout the delivery of the project.
- 7.2 Key equality considerations currently identified include:
- potential impact of design and construction to local stakeholders; and
 - ensure safe and unrestricted access to the new facilities for all path users.

Sustainability impact

- 8.1 A Sustainability Impact Worksheet was completed for this project, which concluded that there are broadly positive sustainable impacts arising from its implementation.

- 8.2 A full Environmental Impact Assessment will be completed as part of the Planning process, during design and consultation.
- 8.3 If the ATAP is implemented successfully, it is expected that there would be positive environmental benefits. The development and potential implementation of this project will assist in the delivery of the ATAP actions relating to walking and cycling.

Consultation and engagement

- 9.1 Stakeholder consultation and engagement has been undertaken as part of the objective setting and design review workshops with internal Council stakeholders including representatives from the Transport and Planning departments. Subsequently, external stakeholder representatives have been engaged with including Spokes, Sustrans, Living Streets, Community Councils, local resident groups, businesses and cyclists.
- 9.2 These workshops included a review of the project objectives, a review of the outline design options for key sections of the route and then considered each of the design options against the objectives.
- 9.3 This report seeks authorisation to commence a formal public consultation and engagement on the preferred route. Details of the proposed consultation and engagement for the proposed route are contained in the main body of the report.

Background reading/external references

[Development of major cycling and walking projects – Transport and Environment Committee, 3 June 2014 \(Item 7.8\).](#)

John Bury

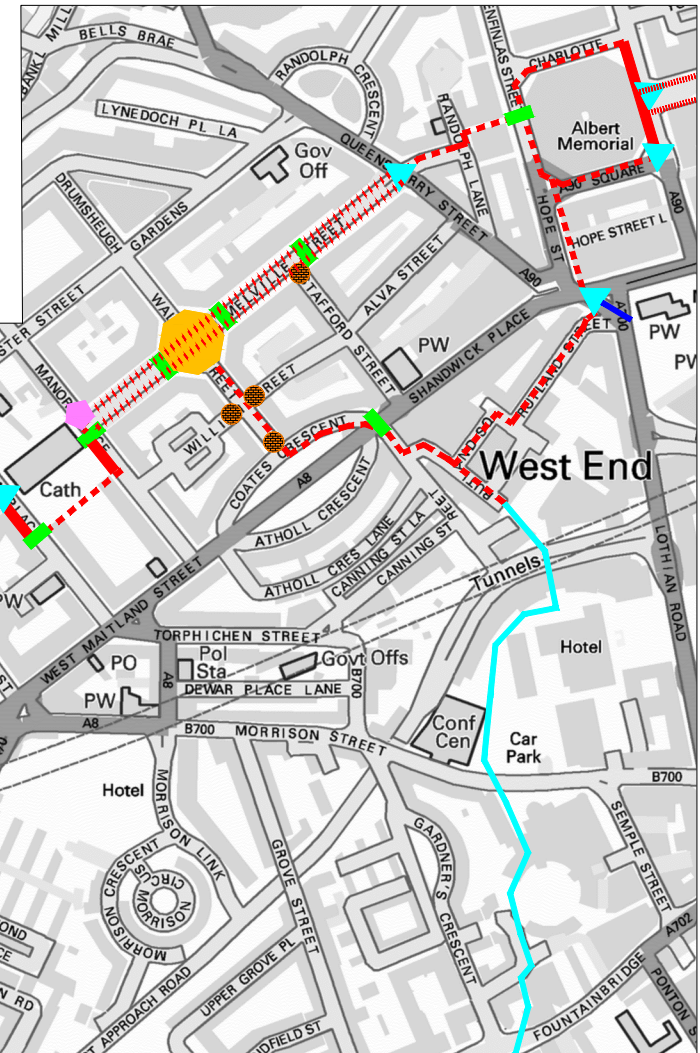
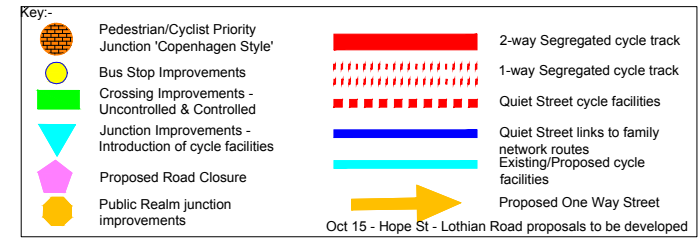
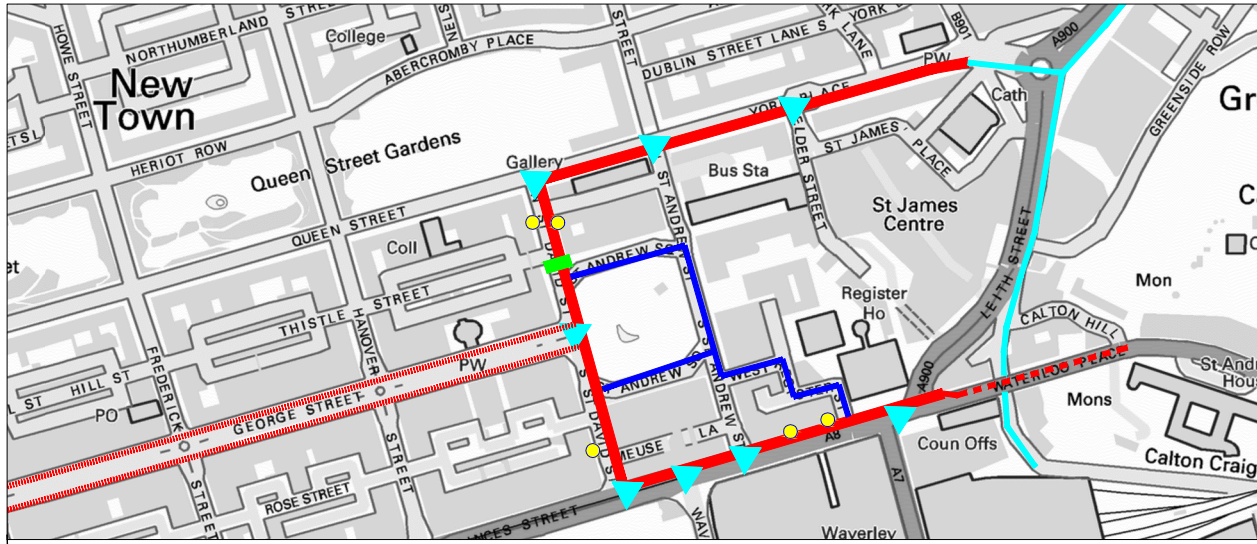
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Links

Coalition pledges	P43 - Invest in healthy living and fitness advice for those most in need. P45 - Spend 5% of the transport budget on provision for cyclists P50 - Meet greenhouse gas targets, including the national target of 42% by 2020.
Council outcomes	CO5 – Our children and young people are safe from harm or fear of harm, and do not harm others within their communities. CO7 – Edinburgh draws new investment in development and regeneration. CO8 – Edinburgh’s economy creates and sustains job opportunities. CO9 – Edinburgh residents are able to access job opportunities. CO18 – Green - We reduce the local environmental impact of our consumption and production. CO19 – Attractive Places and Well Maintained – Edinburgh remains an attractive city through the development of high quality buildings and places and the delivery of high standards and maintenance of infrastructure and public realm. 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. SO2 - Edinburgh’s citizens experience improved health and wellbeing, with reduced inequalities in health. SO4 - Edinburgh's communities are safer and have improved physical and social fabric.
Appendices	<ol style="list-style-type: none">1 Map of proposed route2 Preliminary project justification report3 Design objectives4 Detailed proposals & design changes5 Project programme6 Cost estimates



Roseburn to Leith Walk Cycle Route

Roseburn to Leith Walk Cycle Links

Preliminary Justification Report (PJR)

December 2014

Executive Summary

Edinburgh has an aspiration to provide a **'Family Network'** standard link from National Cycle Network routes 1, 8 and 9 at Roseburn to the City Centre, extending to Leith Walk.

The Roseburn to Leith Walk cycle link has been designed to help achieve this aspiration, by providing 4km of cycle route along an east-west corridor through Edinburgh city centre. This will improve the city's cycle network and enhance connectivity. In doing so, the project also helps Edinburgh realise its ambition of having a transport system that is **one of the most environmentally friendly, healthiest and most accessible in northern Europe** (Edinburgh's Vision for Transport 2030).

This report forms the Preliminary Justification for the project, part of the development study stage. The report has been produced using the five business cases model (Strategic, Economic, Financial, Commercial and Management).

A cycle demand model developed for this report forecast a potential increase in one-way commuter cycle trips across the route from 1,675 to 3,142 – **an increase of 88%** (1,467). This represents an **increase of 16% in the number of people cycling to work across Edinburgh** to 10,872.

The cycle link has a strong economic case, with the additional cycle demand leading to a **forecast benefit in excess of £20m**. This benefit is comprised largely of health benefits through increased active travel amongst the city's population, as well as wider economic benefits .

Given forecast costs of £6.3m, **the scheme is expected to achieve a BCR of 3.3**.

Stakeholder engagement forms a strong part of the management of the project and the design of the route.

Financially, two key revenue sources have been identified: the Sustrans Community Link Programme and internal CEC funding. The scheme is well aligned with Sustrans' funding requirements.

Contents

1. Introduction
2. Strategic case
3. Economic case
4. Management case
5. Funding case
6. Commercial case
7. Conclusion
8. References

Introduction

Introduction

Edinburgh has an aspiration to provide a 'Family Network' standard link from National Cycle Network routes 1, 8 and 9 at Roseburn to the City Centre, extending to Leith Walk, as detailed in the city's Active Travel Acton Plan. A 'Family Network' standard link is one which is designed for less confident cyclists who may be concerned about safety.

The Roseburn to Leith Walk Cycle Links project has been developed to meet this aspiration and achieve the Council's Vision for sustainable transport in Edinburgh.

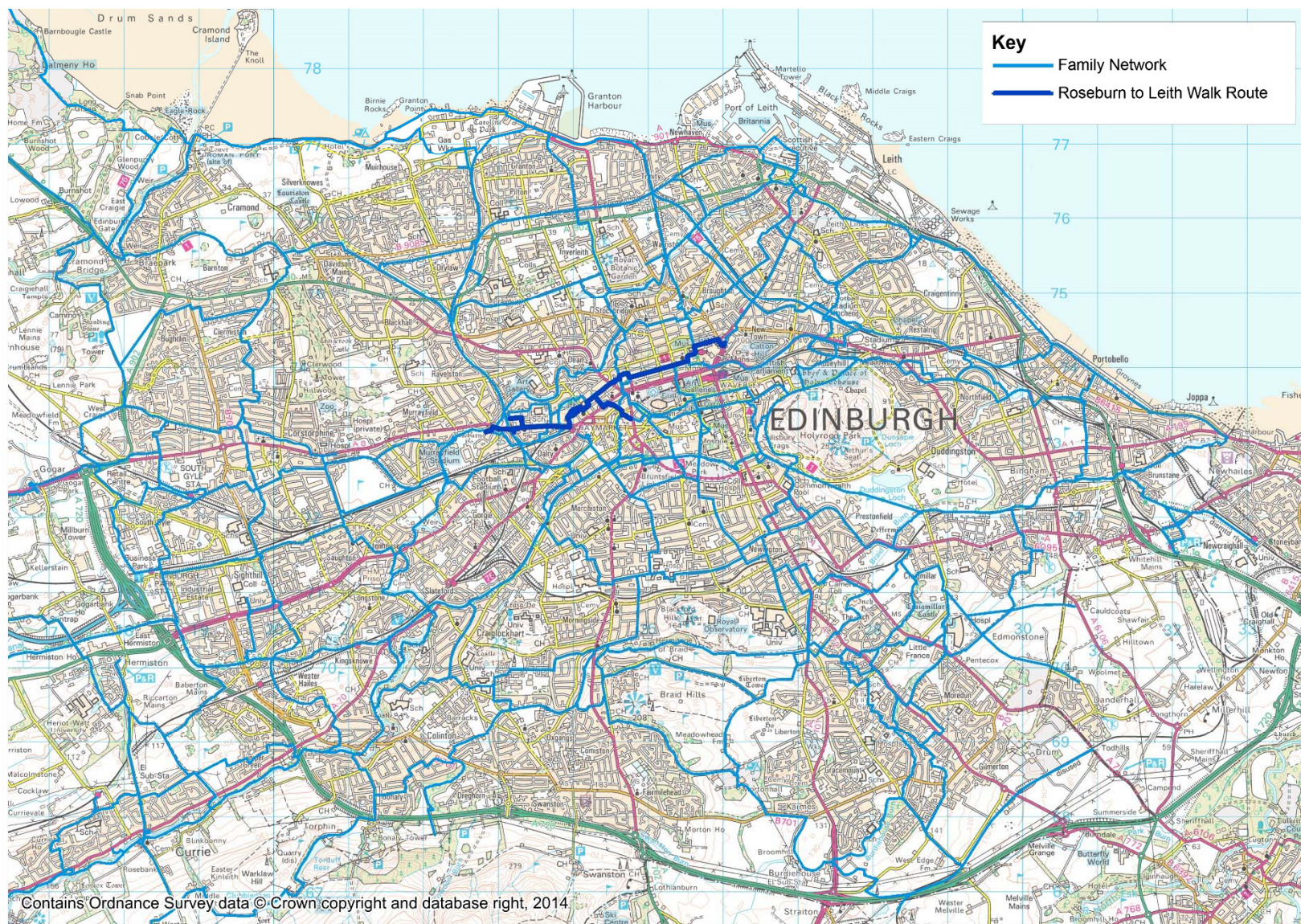
The project is currently at stage two of the development cycle, as detailed below:

- Stage 1 – WSP's Initial Feasibility Study
- **Stage 2 – Atkin's Route Development Study**
- Stage 3 – Detailed design
- Stage 4 - Construction

This reports forms the Preliminary Justification Report for the project, part of the development study stage. The report has been produced using the five business cases model (**Strategic, Economic, Financial, Commercial and Management**).

The location of the route is shown in Figure 1 on the following page.

Figure 1 –Proposed Roseburn to Leith Cycle Route and the Envisaged Family Network



Strategic Case

Strategic Case

Introduction

Edinburgh aspires to having a transport system that is **one of the most environmentally friendly, healthiest and most accessible in northern Europe** (Edinburgh's Vision for Transport 2030). This falls under the wider Scottish vision that, **by 2020, 10% of everyday journeys taken in Scotland will be by bike** (Cycling Action Plan for Scotland 2013).

Options for active travel throughout the city, in particular cycling, play an integral part of delivering this vision by **reducing car dependency and greenhouse gas emissions**, improving **public health** and **reducing vehicle collisions** and **supporting the economy** by improving access to employment and reducing absenteeism. CEC's aspirations to implement a 20mph zone across the city demonstrates that the city wants to improve the opportunities for undertaking safe and attractive journeys by bike.

To have a transport system that rivals the likes of Copenhagen and Amsterdam, Edinburgh must make a smart choice to invest in active travel modes, such as cycling. In London, a city with a similar ambition to Edinburgh, the Mayor has empowered a Cycling Commissioner to deliver a cycle revolution. Edinburgh wants to drive forward its own 'cycling revolution' building on the strong support from local and national policy.

Edinburgh has the highest cycling levels of all urban areas in Scotland, yet cycling in Edinburgh still only makes up around*:

- 2% of all trips, as the main mode;
- 2% of child journeys to school; and
- 6% of journeys to work.

There is however great potential to increase cycling:

- 29% of all journeys are 2 to 5 km long (a 10 to 20 minute bike ride); and
- 14% journeys are 5 to 10 km long (a 20 to 40 minute bike ride).

* Scottish Household Survey, 2007-08. These figures include journeys under quarter of a mile/five minutes duration.

Strategic Case

What is driving the project?

Edinburgh already has the highest levels of cycling and walking of any city in Scotland, with the Council keen to work from this strength, with an objective **to increase the numbers of people in Edinburgh walking and cycling, both as means of transport and for pleasure** (Active Travel Action Plan, 2013).



A pre-requisite of meeting this objective and delivering a cycle friendly city is having a dense network of safe and accessible cycle routes. The Leith Walk cycle link, delivered in 2014, was a significant step in building up a comprehensive network of routes to attract growth in cycling, receiving strong support from the local community during consultation. The proposed scheme builds on this momentum by providing a new east-west cycle route across the city centre that will better connect cyclists with existing cycle routes.

Local attitudes to cycling

A Travel Behaviour Survey was undertaken in Edinburgh in 2014, it found:

- 12% of residents cycle at least once a week, whilst 41% state that Edinburgh is easy to get around by bicycle.
- However, half of residents feel unsafe cycling because of traffic, with 14% believing cycle routes were not adequate.

These findings show **there is a strong cycling base in the city but demand is potentially suppressed due to safety fears**. As such, there is a strong opportunity to improve the city's cycle network and this can drive significant increases in cycling across the city.

Strategic Case

Scheme Objective

The objective of the Roseburn to Leith Walk cycle link is to **provide the missing cycle link between Roseburn and Leith Walk, delivering a safe, family network route across the city centre.**

Option Generation

An initial feasibility study of the route options available to complete the missing link was undertaken by WSP, taking into consideration multiple criteria including directness, safety, cost and deliverability factors. This assessment resulted in a proposed scheme route alignment, as shown in Figure 1.

Proposed Scheme

The proposed scheme comprises over 4 kilometres of cycle route and has been designed to:

- Deliver a **high quality cycling facility** (including elements of segregating cyclists from motor traffic)
- Improve **cycle connectivity** across the city by being fully integrated with the existing cycle/pedestrian network and thereby completing the missing link in the network
- **Integrate** with the newly upgraded cycle link on Leith Walk and the streetscape improvements along George Street
- Provide **safer, more direct and convenient city centre access** to key destinations in the city centre, by bike

The scheme will be supported in its success through a well funded marketing campaign, led by the Council, to encourage the uptake of cycling in the city.

Strategic Case

Design Criteria

The route's facilities will be designed to meet the needs of cyclists. The design criteria used to create a high quality cycle route are illustrated below.



Safety

Collision risk, feeling of safety & social safety



Directness

Journey time, value of time & deviation



Coherence

Connections & wayfinding



Comfort

Surface quality, material, effective width, gradient, directions & undulations



Attractiveness

Impact on walking, greening, air quality, noise pollution, minimise street clutter & secure cycle parking

Strategic Case

Policy Alignment

The table below summarises the significant Policy support for cycling. It clearly shows that enhancing cycle infrastructure in Edinburgh aligns with CEC and national policy.

Strategic aims for cycling →	A sustainable transport network with a well connected, accessible cycle network	Reduce transport's contribution to greenhouse gas emissions	Improve health by encouraging active modes of travel and improving local air quality	Support the local economy by providing access to employment, amenities and services	Provide reliable journey times for users	Increase cycle modal share	A safe and secure cycle network
Key policy documents ↓							
Transport 2030 Vision	✓	✓	✓	✓	✓	✓	✓
Local Transport Strategy 2014-2019	✓	✓	✓	✓	✓	✓	✓
Active Travel Action Plan	✓	✓	✓	✓		✓	✓
Cycle Action Plan for Scotland 2013	✓	✓	✓	✓		✓	✓
Cycle by Design 2010	✓	✓	✓	✓			✓

Economic Case

Economic Case

Introduction

The economic case presents the forecast value for money of the scheme in the form of a **Benefit Cost Ratio** (BCR). The scheme's **potential trip generation** has been determined through a cycle demand model. The forecast cycle trip generation has been used to estimate changes to the following impacts:

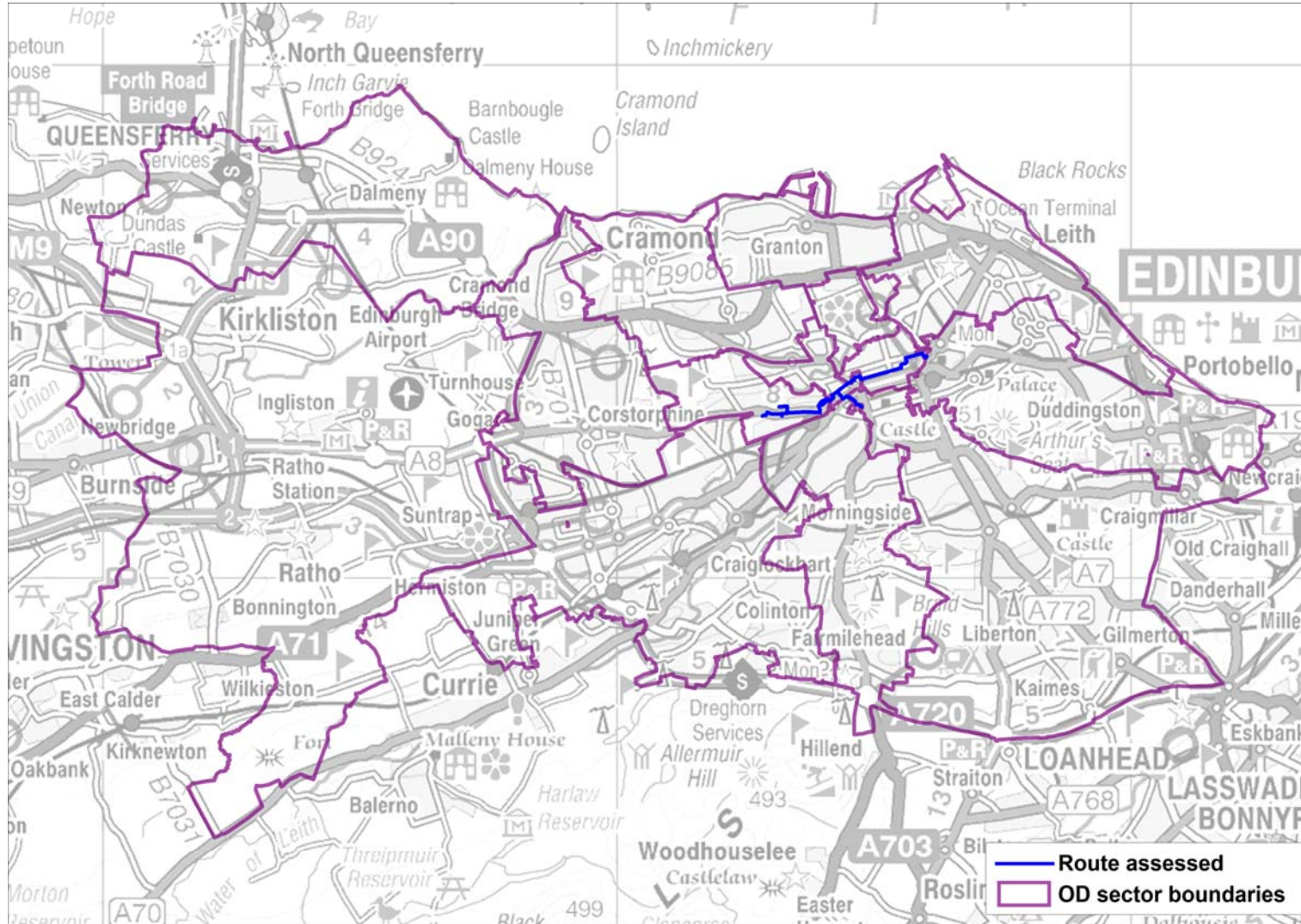
- Public Health
- Absenteeism
- Journey quality
- Cycle collisions
- Gross cycling product
- Marginal external costs

Assumptions

- The route assessed and OD sectors are as shown in Figure 2
- Costs and optimism bias proportions are as provided by City of Edinburgh Council for the route being assessed
- There are no cycle facilities along the route corridor in the base scenario, with the scheme providing a high quality cycle track along the route
- The cycling demand model assumes that the utility of all modes except cycling remain unchanged
- Benefits are forecast based on a 10 year scheme life, the period typically used for UK cycling scheme appraisal¹
- All figures presented are 2010 prices, with a 3.5% discount rate

Economic Case

Figure 2 – OD Sectors and Route Assessed



Contains Ordnance Survey data © Crown copyright and database right (2014)

Economic Case

Cost

The initial feasibility study for the route (undertaken by WSP), forecast the total scheme cost to be £6.3m, including a 44% optimism bias on construction costs and 32% optimism bias on design costs.

These costs are considered to be robust for this stage of scheme development, and with the inclusion of optimism bias are likely to be an overestimate of the actual outturn costs of the scheme. Further refinement of the scheme costs will be undertaken for inclusion in the Final Justification Report.

Economic Case

Benefits: Forecasting Potential Demand

Methodology: Commuter Cyclists

The potential demand impact of the scheme has been estimated using a disaggregate mode choice model derived by Wardman, Tight and Page (2007)², to **forecast the impact of improvements in the attractiveness of cycling for commuting trips** of 7.5 miles or less. The model uses the current base proportion of population who cycle between Origins and Destinations (ODs) that may make use the route (e.g. Haymarket to Regent Gardens) and, based on the level of cycling provision created, can provide an estimated 'post scheme' proportion of local population cycling for commuting trips.

The following inputs have been used in the model:

- 2001 Census travel to work OD data has been used to establish those trips that would pass through the route corridor
- 2011 Census journey to work mode and economically active population data to factor the 2001 Census data to 2011 levels, whilst retaining the 2001 OD movements

The average cycling speed along the route is assumed to be a moderate 14km/hr, meaning that a one-way trip along the route would take approximately 17 minutes.

It is important to note that this cycling demand model assumes that the utility of all modes except cycling remain unchanged.

Economic Case

Benefits: Forecasting Potential Demand

Methodology: Weekday Non-Commuting Cyclists

The number of weekday non-commuting cyclists has been estimated using 12 hour observed cycle count data for Leith Walk. The ratio between cyclists travelling during the AM peak and those travelling during the inter-peak was calculated and applied to the predicted number of inbound commuter trips in the demand model. This provided estimates for both the existing weekday non-commuting trips and those generated by the scheme.

Methodology: Weekend Non-Commuting Cyclists

The number of weekend non-commuting cyclists has been estimated using Route User Intercept Survey cycle count data for three sites within Edinburgh City Centre. The surveys were undertaken on weekdays and weekends, providing a ratio of weekday to weekend trips which has been applied to the number of commuter and weekday non-commuting cyclists previously calculated as using the route.

Economic Case

Benefits: Forecasting Potential Demand

Results: Commuter Cyclists

Census data indicates that for trips along the route corridor, the base number of one-way commuter cycle trips is 1,675. **Based on the scheme improvements, the potential number of one-way commuter cycle trips is 3,142, an additional 1,467 (88% increase) one-way commuter trips on the route.**

The additional trips represent an increase of 16% in the number of people cycling to work across the whole of Edinburgh. This equates to a change in cyclists from 9,405 to 10,872.

Results: Weekday Non-Commuting Cyclists

The base number of one-way weekday non-commuting cyclists along the route corridor or parallel routes is 1,660. The model forecasts an additional 1,454 cyclists will use the route as a result of the improvements, an increase of 88%.

Results: Weekend Non-Commuting Cyclists

The base number of one-way weekend non-commuting cyclists along the route corridor is 1,928. The model forecasts an additional 1,688 cyclists will use the route as a result of the improvements, an increase of 88%.

The model results have been used to quantify the forecast scheme benefits, as detailed on the following slides.

Economic Case

Benefits: Health

Methodology

The World Health Organisation (WHO) has developed a Health Economic Assessment Tool³ (HEAT) that calculates the economic benefit of preventing early mortality by increasing the number of people regularly exercising through cycling. The tool requires estimates of the number of new cyclists as a result of the scheme; the time per day they will spend active; and mortality rates applicable to the group affected by the scheme. The tool then provides an economic benefit of reduced mortality based on the value of a prevented fatality.

The estimated increase in regular commuter (1,467), weekday non-commuting (1,454) and weekend non-commuting (1,688) cyclists have been input into the HEAT tool. It has been assumed that commuter cyclist journeys would be two way trips and that commuters cycle this amount on 124 days per year (the default amount suggested by the WHO, based on empirical research). Additional weekday and weekend non-commuting trips are assumed to be one way trips (they would return by another route or another mode). Weekday non-commuting trips are assumed to occur on 124 days per year, whilst weekend non-commuting trips on 50 days per year.

Economic Case

Benefits: Health

Results

The results of the HEAT calculation are presented below, showing a total health benefit of £13.2m over a 10 year scheme life.

	Health benefit
Commuter cyclist	£7,765,000
Weekday non-commuting cyclist	£3,848,000
Weekend non-commuting cyclist	£1,544,000
Total	£13,157,000

Economic Case

Benefits: Absenteeism

Research carried out by the WHO (2003)⁴ found that absenteeism from work is expected to decrease when more people cycle to work. Moderate physical activity is seen to lead to a reduction in sick days taken from work and hence provides a benefit to the employer. This is in addition to the benefit of better health for the individual.

The average rate of absenteeism per worker, due to sickness or minor illness in the UK labour force is 4.4 days (ONS, 2014)⁵.

Research by the WHO suggests an expected reduction in absenteeism from increased cycling or walking of 6% based on 30 minutes of exercise per day. Extrapolating this to apply to the forecast average of 33 minutes exercise per day for new commuter cyclists using the route (two one-way journeys) leads to an average reduction in absenteeism of 6.6% (to 4.1 days per cyclist).

Applying this absenteeism reduction to the number of commuter cyclists and factoring in WebTAG values of time (£27.07 per hour⁶) and average working hours (32 hours per week⁷), provides a **scheme life absenteeism saving of £741,181**.

Economic Case

Benefits: Cycle collisions

Methodology

- By isolating the personal injury collisions (PICs) involving cyclists, it is possible to estimate the predicted increase or decrease in cycle collisions as a result of the scheme. PIC data obtained from the Department for Transport identified 17 personal injury collisions involving cyclists along the proposed route alignment in the five years from 2009 to 2013. Four of these collisions were classed as serious severity and 13 as slight. The majority of the collisions occurred along George Street and the A8 West Coates.
- The scheme will lead to an increase in the number of cyclists along the route, meaning that despite the safety improvements resulting from the provision of a cycle track, there is a risk that the number of cycle collisions will increase when the scheme is implemented due to the increase in cycle activity.
- Empirical research undertaken by Jacobsen (2003) has shown that increasing levels of cycling does not result in an equivalent increase in the numbers of collisions involving cyclists (all other things being equal). This research indicated that a doubling of cycle numbers would lead to a 32% increase in cycle related collisions – meaning the cycle collision rate would decrease. This relationship has been applied to the 88% increase in cyclists forecast on the route as a result of the scheme, with the results presented on the following slide.

Economic Case

Benefits: Cycle collisions

Results

The forecast change in annual average cycle collisions is presented in the table below, revealing that the number of cycle collisions is expected to increase as a result of the scheme as a result of the significant rise in cyclists on the route.

Scenario	Collision Severity			Total
	Slight	Serious	Fatal	
Base	2.6	0.8	0.0	3.4
With scheme	6.4	2.0	0.0	8.4
Change	+3.8	+1.2	-	+5.0

Monetising these benefits using values detailed in WebTAG Table A 4.1.3 produces a forecast monetised **disbenefit of £3,169,663 across the scheme life.**

It should be noted that the change in collision rate does not account for the fact that cyclists will now be using a segregated route rather than existing non-segregated routes. Consequently the calculations present a pessimistic forecast in terms of safety impacts.

Economic Case

Benefits: Journey Quality

Methodology

Whilst many factors influence journey quality, for cyclists the fear of potential collisions is a significant factor. As the fear of a collision is influenced by the concerns about road safety, schemes that include segregated cycle tracks and improvements to intimidating junctions greatly improve cycle journey quality.

Journey quality is calculated on the basis of values as presented in TAG Data Book A4.1.67. This table provides a benefit for the provision of a new on-road segregated cycle lane of 2.99 pence per minute experienced (2010 prices). As the impact is experienced by existing users the most, current users of the route experience the full value of the benefit (2.99p) whereas, new cyclists only experience half of the benefit (1.50p).

It has been assumed that commuter and weekday non-commuting cyclists receive the journey quality time benefits on 124 days per year, whilst weekend non-commuting cyclists received the benefit on 50 days per year.

Results

These values were applied to the existing and additional cycling trips along the scheme route for commuter and cycle trips. The results of this indicate a **journey quality benefit of £3,282,123 over the 10 year scheme life.**

Economic Case

Benefits: Gross Cycling Product

Research suggests that cycling benefits the local economy and a national study carried out by the London School of Economics (LSE) in 2010⁸ concluded that each cyclist contributes a Gross Cycling Product (GCP) of £230 per year to the economy. This research was supported by a European wide study⁹ which found that cycling delivers wider economic benefits in terms of supporting jobs and driving tourism – with cycling having a greater employment intensity than any other transport sub-sector.

Applying the findings of the LSE study to the forecast increase in cycling, **the scheme will generate a GCP benefit of £5,753,218 over the 10 year scheme life.**

Benefits: Marginal External Costs

Methodology

The scheme will lead to modal shift towards cycling amongst commuters. Where this shift is away from cars, there will be benefits to reduced car use in the form of decongestion, car collision, greenhouse gas, air quality, noise and indirect tax benefits. These benefits have been estimated using the Marginal External Cost (MEC) method, based on the forecast reduction in car kilometres as a result of the scheme.

The number of new commuter cycling trips has been applied to the current proportion of car trips on the scheme route to give an estimated reduction of car trips as a result of the scheme. For the purpose of this report, any car trips that have been replaced by cycle trips are assumed to be 5km. This gives a total reduction of car km of 660,619 per annum.

The estimated reduction in car km is then used to calculate the MEC benefits using figures outlined in TAG Data Book Table A 5.4.2, as presented in the results table on the following slide.

Economic Case

Benefits: Marginal External Costs

Results

The MEC benefits forecast as a result of the scheme total £1,086,167 across the 10 year scheme life, as presented below.

Cost Type	Benefit
Noise	£11,314
Infrastructure	£5,657
Local air quality	£5,657
Greenhouse gases	£56,571
Car collisions	£169,714
Economic efficiency: consumer users (commuting)	£1,159,710
Wider public finances (indirect taxation revenues)	-£322,456
Total	£1,086,167

Economic Case

Other Benefits

A number of other, non-quantified benefits will be delivered by the scheme, including:

- There will potentially be an improvement in journey time reliability for cyclists as they may be less affected by delays than other forms of traffic, particularly during the morning and evening peak hours.
- General improvements to the public realm and streetscape, enhancing the quality of life in Edinburgh. A survey of cyclists, car drivers and pedestrians on George Street following the implementation of a trial one-way traffic system and changes to pedestrian and cycle facilities show strong support for the improvements, with 88% of respondents stating that changes had made the area more attractive.
- As discussed in the Strategic Case, the scheme will support a wider cultural shift in Edinburgh towards the use of cycles by enhancing the city's cycle network and building on the momentum of the Leith Walk cycle improvements.

Economic Case

Benefit Cost Ratio

The table below presents a summary of the forecast PVB and PVC of the scheme, presenting the scheme's **BCR of 3.3**.

Present Value of Benefits:	£15,096,808
Health Benefits	£13,157,000
Business Benefits (Absenteeism)	£741,181
User Benefits (Journey Quality & Journey Time Saving)	£3,282,123
Cycle collisions	-£3,169,663
Marginal external costs	£1,086,167
Present Value of Costs	£6,324,242
Net Present Value	£8,772,566
Benefit Cost Ratio	2.39
Wider Economic Benefit (Gross Cycling Product)	£5,753,218
Net Present Value inc. Wider Economic Benefit	£14,525,784
Benefit Cost Ratio inc. Wider Economic Benefit	3.30

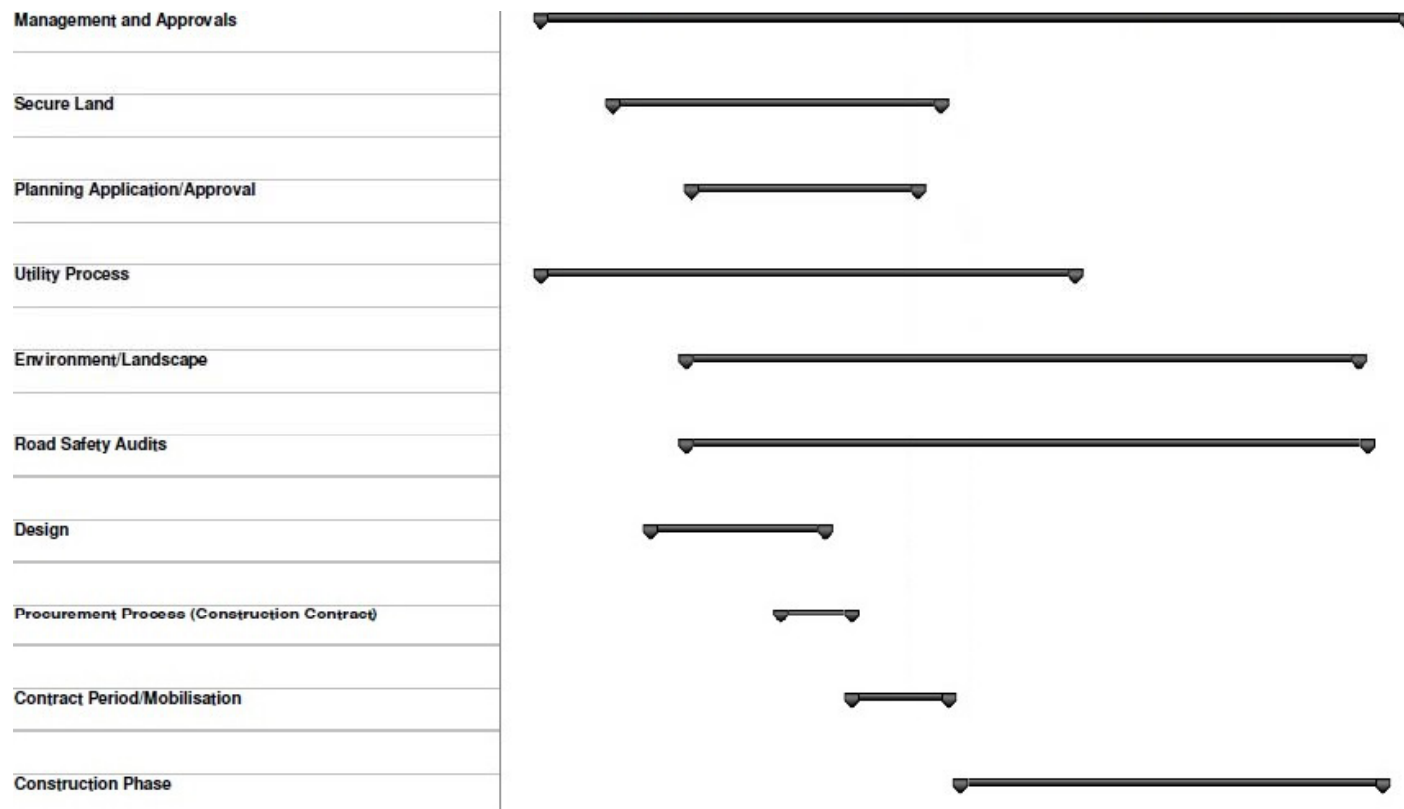
Management Case

Management Case

The management case details how the scheme will be delivered by CEC.

Programme

The envisaged key stage in project delivery are shown in the programme below. **UPDATE THE PROGRAMME**



Management Case

Resourcing

- A detailed resource plan will be produced at the outset of the project, which will be managed and updated as changes to the requirements occur.
- Appropriate additional resources will be acquired where forecast resource need is greater than available resource need.
- Senior staff within the project team will be maintained to provide continuity and development of skills and experience. This is important to effectively managing the shifting political landscape against which the project needs to be delivered.

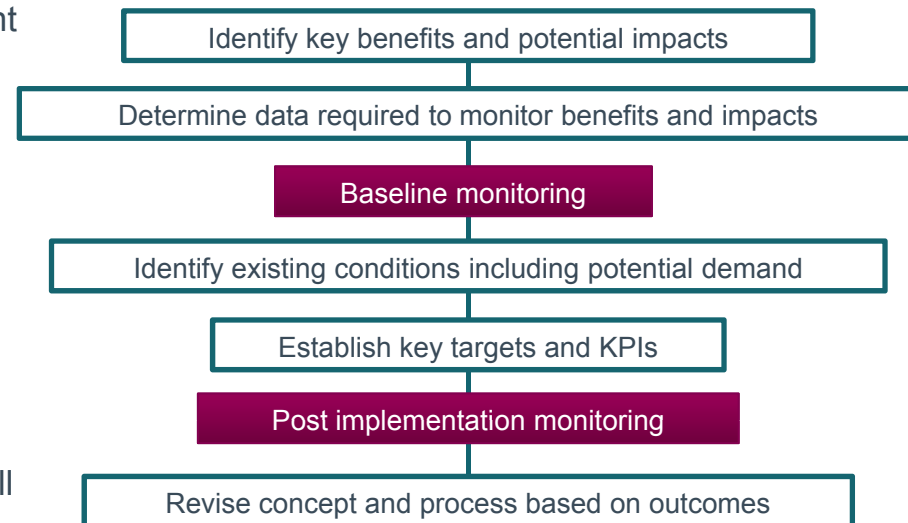
Risk

Project risks will be mitigated by further development of the design at the appropriate stages, including risks for the supplier to address during the implementation stage and risks to be retained as a client responsibility. Value engineering will be undertaken to optimise value and reduce risk.

Benefits Realisation

A Benefits Management Strategy will identify what the benefits of the scheme will be, how they should be quantified and measured, the systems and processes to be used to track progress, and who will be responsible for benefits realisation and assessment. The flow chart opposite summarises the benefits realisation strategy approach.

Benefits Realisation Strategy Approach

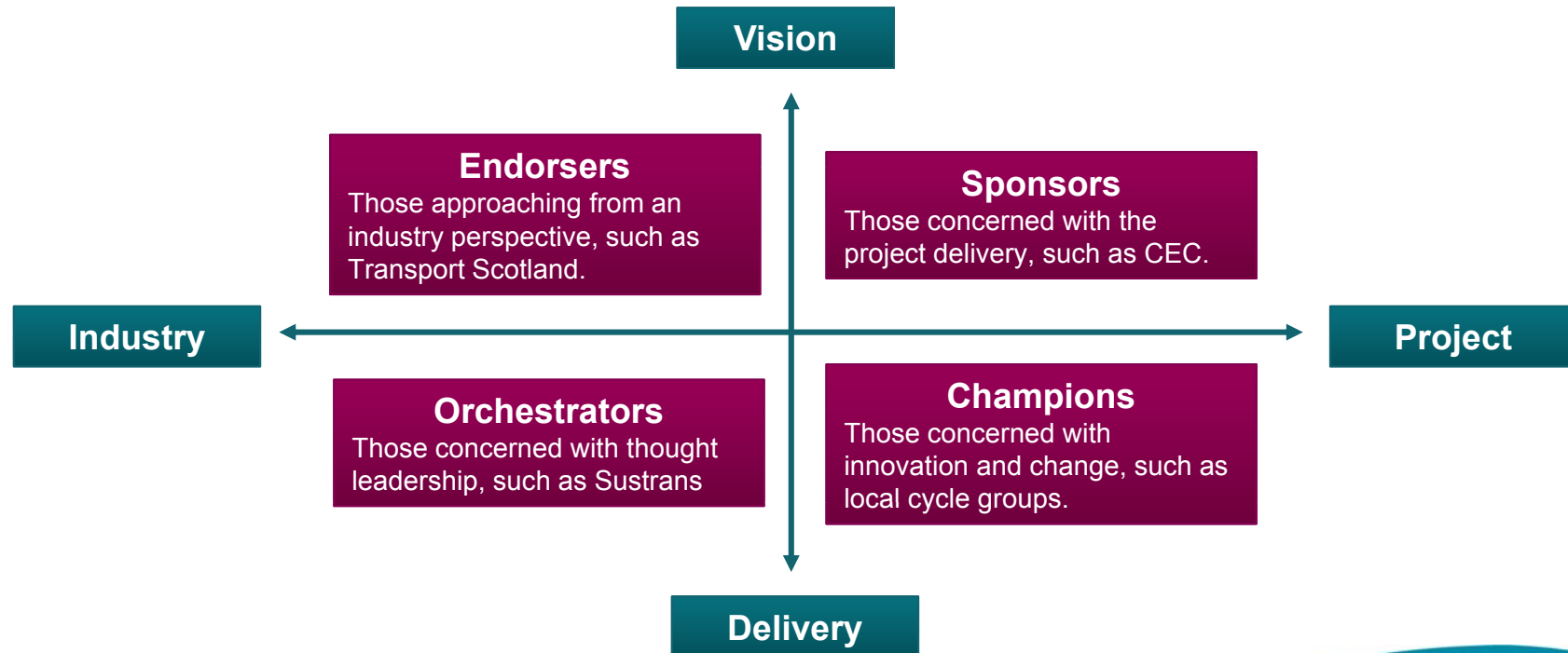


Management Case

Stakeholder Management

Appropriate activities will be held to ensure that the views and requirements of stakeholders are explored and recorded, in line with the 'Consulting Edinburgh framework'. This stakeholder engagement process will help inform the development of the route.

Stakeholders will be managed using the approach presented below.



Financial Case

Financial Case

The financial case sets out how CEC will source funds for the scheme, including an assessment of the affordability and financial risks involved.

Funding Sources

CEC has identified the Sustrans Community Links Programme and internal funding programmes to finance the scheme.

The Sustrans Community Links Programme provides funding to help local authorities meet Transport Scotland's vision for cycling, as set out in the Cycling Action Plan for Scotland. This programme has the potential to provide up to 50% of the scheme's funding. An assessment of the scheme's alignment with the programme's scoring criteria is provided on the following slides, showing the scheme as being strongly aligned with the purposes of the Community Links Programme.

Internal CEC funding is usually sought by presenting a robust business case to the management.

Opportunities for third party funding will be investigated.

Financial Risk Management

Approaches to managing the project's financial risk are as outlined in the management case.

Financial Case

Sustrans Community Links Programme funding: scheme alignment with general criteria

Sustrans criteria	Scheme alignment
Meet an identified community demand	There is strong support in Edinburgh for an improvement in cycle facilities, reflected in the city's key planning documents - the Transport Strategy and Active Travel Action Plan.
Provision of direct, convenient and attractive cycling to places people want to go to everyday.	The scheme will provide the 'missing link' across Edinburgh city centre , connecting communities with the commercial heart of the city. The route has been designed in line with the five core design principles in Transport Scotland's Cycling by Design guidance: Safety, Coherence, Directness, Comfort and Attractiveness. Demand modelling has shown there will be a significant increase in cyclists as a result of the scheme.
Large projects should include a monitoring and evaluation process.	A Benefits Management Strategy will identify what the benefits of the scheme will be, how they should be quantified and measured, the systems and processes to be used to track progress, and who will be responsible for benefits realisation and assessment.
Show evidence of community need and/or support for the improvements	The strategic case shows the strong local support for the scheme, with Edinburgh's Transport Strategy and Active Travel Action Plan supporting improved cycle connectivity in the city.

Financial Case

Sustrans Community Links Programme funding: scheme alignment with deliverability scoring criteria

Sustrans criteria (total available marks)	Detailed description of Scoring Criteria	Scheme alignment
Certainty of match funding (10)	<p>Match funding is an essential component of the programme and can directly affect the deliverability of the project:</p> <ul style="list-style-type: none"> • 0 marks if no match funding has been identified • 5 marks if the match funding has been applied for but not yet confirmed • 10 marks if the match funding is secure and already in place 	CEC have identified potential internal finances to provide match funding.
Required permissions (10)	<p>Has landowner consent, planning permission and necessary legal requirements obtained; and Traffic Regulation Orders granted and in place to allow the project to be delivered?</p> <ul style="list-style-type: none"> • Scored on a scale of 1 to 10 on how far the required permissions are progressed 	It is intended that necessary permissions will be gained.
Advancement of the design (10)	<ul style="list-style-type: none"> • 0 marks where no design is in place or no drawings are presented • 5 Marks where an outline design or options are presented • 10 marks when a project is fully designed up and ready to go <p>Where the application is for a design project, or a design and build project, award 10 marks so that all applications are considered on a level playing field.</p>	A preferred route alignment has been identified, with an outline design in the process of being developed.

Financial Case

Sustrans Community Links Programme funding: scheme alignment with quality scoring criteria

Sustrans criteria (total available marks)	Detailed description of Scoring Criteria	Scheme alignment
Evidence of community need & demand (10)	<p>Project has links to a wider community objective, e.g. School Travel Plans, Core Path Plans, Local Transport Strategies, Local walking and or cycling strategies, as detailed in criteria two:</p> <ul style="list-style-type: none"> • Scored on a scale of 1 to 10 on how central the project is to achieving wider objectives 	<p>The strategic case shows the strong local support for the scheme, with Edinburgh's Transport Strategy and Active Travel Action Plan supporting improved cycle connectivity in the city. The scheme is of great importance for providing the 'missing link' in Edinburgh's cycle network and in growing the Family Network.</p>
Creates an effective everyday link or provides a series of significant local interventions (10)	<p>Project creates a link between a community and places people want to make a journey to:</p> <ul style="list-style-type: none"> • educational institutions • public transport interchanges • healthcare facility • recreational facility • shopping centres • leisure centres • places of employment • residential areas • town centres • Other (must be specifically defined in the funding application) <p>Scored on a scale of 1 to 10 on how central the project is to achieving wider objectives.</p>	<p>The scheme will provide the 'missing link' across Edinburgh city centre, connecting communities with the commercial heart of the city. The route passes transport interchanges (Haymarket Station) and areas of shopping and employment. It also connects communities to the east and west of the city centre. The link is designed as a Family Network route, suitable for cyclists of all capabilities, thereby providing an effective everyday link for non-commuting and commuter cyclists.</p>
Offers a significant choice for active travel and everyday purposeful journeys (10)	<p>How likely is it that the project will encourage active travel and increase modal share for walking and cycling on every day journeys?</p> <p>Scored on a scale of 1 to 10.</p>	<p>The scheme will encourage the uptake of cyclist across the city, with demand forecasting showing the potential for a significant increase in cyclists. Given the nature of the route, there is an opportunity for people currently deterred from cycling because of perceived safety issues to shift towards the use of cycling.</p>

Financial Case

Sustrans Community Links Programme funding: scheme alignment with quality scoring criteria

Sustrans criteria (total available marks)	Detailed description of Scoring Criteria	Scheme alignment
Community Engagement (10)	<p>Demonstrated level of community engagement:</p> <ul style="list-style-type: none"> • Level 1: Informing – 0 marks • Level 2: Consulting – 5 marks • Level 3: Partnership – 10 marks <p>Please refer to Appendix A of the Community Links guidance for information on community engagement.</p>	A series of stakeholder workshops will be held. Participant views will be used to inform the development of the route.
Design Standards (15)	<ul style="list-style-type: none"> • 0 – If the project does not meet basic standards • 5 marks – Mostly meets Designing Streets or Cycling by Design standards but due to land constraints is limited in some way, within reason (e.g. to avoid damaging trees or because of land constraints) • 10 marks – Meets all of Designing Streets or Cycling by Design standards • 15 marks – Exemplar infrastructure which goes beyond the minimum requirements <p>Note: Saving funds is not an acceptable reason for sub-standard design where the project is otherwise unconstrained but may be acceptable where costs are disproportionate to benefits.</p>	<p>The scheme is being designed in accordance with the 5 Core Design Principles from Transport Scotland's Cycling by Design Guidance:</p> <ul style="list-style-type: none"> • Safety • Coherence • Directness • Comfort • Attractiveness. <p>Application of these principles is shown in the scheme design.</p>
People focused measures (behaviour change) (15)	<ul style="list-style-type: none"> • 0 Marks if the project involves no behaviour change measures • 5 marks if only limited behaviour change interventions are present • 10 marks if behaviour change measures are present such as signage, promotional aspects and enhanced community engagement • 15 marks if the project has a comprehensive behaviour change strategy to coincide with the capital works 	<p>The scheme will be supported in its success through a well funded marketing campaign, led by the Council, to encourage the uptake of cycling in the city. Edinburgh's Active Travel Marketing Strategy 2013-2018 provides the framework for this behavioural change programme.</p>

Financial Case

Sustrans Community Links Programme funding: scheme alignment with quality scoring criteria

Sustrans criteria (total available marks)	Detailed description of Scoring Criteria	Scheme alignment
Includes innovative and imaginative concepts (10)	Scored on a scale of 1 to 10 on how effectively your project includes approaches and concepts such as the following: <ul style="list-style-type: none"> • Significant people focused enhancements to the local environment • Innovative design, over and above standard practice • Enhanced and innovative signage and interpretation boards • Ecological enhancement such as native species planting or seeding • Other innovative and imaginative concepts 	The design approach is described in the scheme design layouts.
Supports development of the National Cycle Network (10)	<ul style="list-style-type: none"> • 0 marks may be given where the project does not have any relationship to the NCN • 5 marks may be given where the project has a direct relationship with the NCN (e.g. links directly to the NCN or a local route which itself links to the NCN) • 10 marks may be given for a project which forms a direct part of the NCN. 	The proposed scheme alignment forms a part of NCN Routes 1 and 75, directly improving the NCN.
Links to the outcomes set out within CAPS (20)	Scored on a scale of 1 to 20 on how your project meets the outcomes within CAPS.	The scheme supports the CAPS outcomes by directly improving the quantity and quality of cycle infrastructure in Edinburgh, thereby encouraging a change in travel behaviour across the city. Additionally, the route has been designed to a Family Network standard, safe for cyclists of all experience levels.

Commercial Case

Commercial Case

The commercial case details the procurement strategy for the project.

A procurement plan will be developed with the aid of CEC's procurement department, with the route to market through the Public Contracts Scotland and possibly using Scotland Excel Framework.

Commercial risk will be managed as per the management case.

Conclusions

Conclusions

The Roseburn to Leith Walk cycle link provide 4km of cycle route along an east-west corridor through Edinburgh city centre, improving the city's cycle infrastructure and enhancing connectivity. In doing so, the project supports Edinburgh's ambition to be ***one of the most environmentally friendly, healthiest and most accessible in northern Europe*** (Edinburgh's Vision for Transport 2030).

A cycle demand model developed for this report forecast a potential increase in one-way commuter cycle trips across the route from 1,675 to 3,142 – **an increase of 88%** (1,467). This represents **an increase of 16% in the number of people cycling to work across Edinburgh** to 10,872.

The cycle link has a strong economic case, with the additional cycle demand leading to a **forecast benefit in excess of £20m**. This benefit is comprised largely of health benefits through increased active travel amongst the city's population, as well as wider economic benefits (the gross cycling product).

Given forecast costs of £6.3m, **the scheme is expected to achieve a BCR of 3.3**.

Stakeholder engagement forms a strong part of the management of the project and the design of the route.

Financially, two key revenue sources have been identified: the Sustrans Community Link Programme and internal CEC funding. The scheme is well aligned with Sustrans' funding requirements.

References

References

1 – Department for Transport (2014) Claiming the Health Dividend: A summary and discussion of value for money estimates from studies of investment in walking and cycling.

2 – Wardman, Tight and Page (2007), Factors influencing the propensity to cycle to work. Institute of Transport Studies, University of Leeds.

3 – The World Health Organisation (WHO), Health Economic Assessment Tool (HEAT) – available online at: <http://www.heatwalkingcycling.org/index.php>

4 – World Health Organisation (WHO) (2003) *'Physical Activity Fact Sheet'*

5 – ONS, 2014 - http://www.ons.gov.uk/ons/dcp171776_353899.pdf

6 – WebTAG Data Book Table A1.3.1

7 – Calculated using ONS data - <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/november-2014/table-a01.xls>

8 – London School of Economics (2010) - <http://eprints.lse.ac.uk/38063/1/BritishCyclingEconomy.pdf>

9 - Europe's cycling economy has created 650,000 jobs (2014, The Guardian)
<http://www.theguardian.com/lifeandstyle/2014/nov/12/europes-cycling-economy-has-created-650000-jobs>

Appendix 3

Roseburn to Leith Walk cycle route – Design objectives

Create a high quality cycle route
Create a continuous cycle route of a standard that will feel safe to a wide sector of the population, not just existing regular cyclists. <ul style="list-style-type: none">• Meet cycle route objectives of safety, comfort, attractiveness.• Integrate with planned segregated facilities on Leith Walk and George Street and with the wider Edinburgh Family Network.
Enhance streets as a places
To enhance streets as places that people can enjoy and use for activities other than movement: To respect the positive qualities of the built environment, especially the World Heritage Site
Improve streets for pedestrians
Create a good quality, safe and attractive environment for pedestrians: <ul style="list-style-type: none">• Walking standing and sitting, including waiting at stops,• Accessing facilities and services
Comply with equality requirements
Ensure the City of Edinburgh meets its obligations under Equalities legislation.
Complement the Tram
Ensure tram reliability, Maintain or enhance access to stops.
Complement bus services and stops
Minimise delay to bus services, especially at peak times. Ensure adequate bus stop provision.
Enable loading and servicing to take place
Facilitate loading/servicing to serve the needs of businesses and residents Minimise the impact of loading/servicing on other street activities.
Avoid disrupting through general traffic
Avoid excessive delay to general traffic, with particular regard to pollution and to knock-on effects on public transport. Minimise the intrusive effects of traffic.
Enable taxis to operate
As far as possible, maintain or enhance provision of taxi stances.
Provide adequately for car parking
Facilitate parking to serve the needs of businesses and residents Minimise the impact of parking on other street activities.

Appendix 4

Roseburn to Leith Walk cycle route - Design changes

Part A – Summary of Changes

Proposed changes	Reasons for change
<p>Cycle Environment</p> <p>a) One way & Two-way protected cycle tracks on strategic and secondary streets.</p> <p>b) Quiet street improvements to local streets connecting protected facilities.</p> <p>c) Priority at side street junctions.</p> <p>d) Connections to train stations (Haymarket & Waverley).</p> <p>e) Bus Stop bypasses.</p>	<p>a,b,c) To increase safety for all road users particular for people who cycle, and to encourage more people to take up cycling.</p> <p>d) Improve cycle access to key interchanges.</p> <p>e) Minimise conflict between people riding cycles and bus passengers.</p>
<p>Pedestrian Environment</p> <p>a) Improved crossings of side streets.</p> <p>b) New and upgraded crossings of West Coates, Haymarket Terrace and Melville Street.</p> <p>c) Some footway widening, notably in Roseburn.</p> <p>d) De-clutter of existing streets.</p>	<p>To increase safety whilst improving the look and feel of the route to make it more enjoyable for people who walk in the local area.</p> <ul style="list-style-type: none"> • Improvement to the pedestrian environment. • Create safe environment for pedestrian and cyclist to access replacement crossing facilities.
<p>Public Transport</p> <p>a) Removal of westbound Bus Lane.</p> <p>b) Relocation of existing Bus Stops.</p>	<p>a) To facilitate the installation of a fully segregated cycle facilitate along West Coates, while protecting city bound bus priority.</p> <p>b) To improve the spacing of existing bus stops and improve journey times.</p>

Part B – Summary of Changes

Location	Proposed changes
Murrayfield Gardens	<ul style="list-style-type: none"> • Access towards new route via 2 way protected cycle track towards Murrayfield Avenue.
Murrayfield Avenue	<ul style="list-style-type: none"> • Junction improvements and removal of slip roads from Corstorphine Road.
Murrayfield Place	<ul style="list-style-type: none"> • Localised Footway widening and Streetscape improvements.
Old Colt Bridge	<ul style="list-style-type: none"> • Streetscape improvements and introduction of cycle access towards Murrayfield Place.
Roseburn Place	<ul style="list-style-type: none"> • Improved access into Roseburn Park. • Closure of junction with Roseburn Gardens with cycle/pedestrian access only. • Streetscape improvements including planting.
Roseburn Gardens	<ul style="list-style-type: none"> • Copenhagen' style junction with Roseburn Terrace given priority to pedestrians and cyclists.
Roseburn Terrace	<ul style="list-style-type: none"> • Removal of existing staggered crossing and replacement with a single stage toucan crossing. • 2 way protected cycle track (North side). • Refurbish existing junction with Roseburn Street with additional cycle & pedestrian crossing facilities. • Widening of south footway.
West Coates	<ul style="list-style-type: none"> • 2 way protected cycle track (North side). • Removal of existing staggered crossing and replacement with a zebra crossing. • Relocation of existing bus stops along West Coates. • Introduction of Copenhagen style junctions with cycle and pedestrian priority with vehicles giving way on exit and entrance <ul style="list-style-type: none"> ○ Wester Coates Terrace ○ Wester Coates Road ○ Donaldson School development access/egress ○ Stanhope Street (Pedestrian Priority) ○ Balbirnie Place (Pedestrian Priority) ○ Devon Place (Pedestrian Priority)

Haymarket Terrace	<ul style="list-style-type: none"> • 2 way protected cycle track (North side). • Removal of existing staggered crossing and replaced with a zebra crossing. • Relocation and improvements to existing bus stops. • Introduction of Copenhagen style junctions with cycle and pedestrian priority <ul style="list-style-type: none"> ○ Magdala Crescent ○ Coates Gardens ○ Rosebery Crescent • Introduction of one way streets with cycle Contraflow facilities <ul style="list-style-type: none"> ○ Coates Gardens (Full length) ○ Rosebery Crescent (Between Haymarket Terrace & Rosebery Crescent Lane)
West End Crescents	<ul style="list-style-type: none"> • Quiet Street improvements along Rosebery Crescent & Grovenor Crescent – modifications to parking layout and introduction of raised crossings to gardens.
Palmerston Place	<ul style="list-style-type: none"> • 2 way protected cycle track (West side), from Grosvenor Crescent to Bishops Walk. • Junction improvements including new crossing at junction of Grovenor Crescent. • New toucan crossing at the access towards Bishops Walk.
Bishops Walk	<ul style="list-style-type: none"> • Introduction of cycle track between Palmerston Place and Manor Place next to existing footpath.
Manor Place	<ul style="list-style-type: none"> • New crossing facilities introduced towards Bishops Walk. • 2 way protected cycle track (West side), from Melville Street to Bishops Walk. • Closure North of junction with Melville Street
Melville Street	<ul style="list-style-type: none"> • 1-way protected cycle tracks between Manor Place and Queensferry Street. • Public Realm improvement scheme at the junction with Walker Street. • New uncontrolled crossing facilities along the full length at strategic locations.
Walker Street	<ul style="list-style-type: none"> • Quiet Street improvements along Walker Street towards Coates Crescent – modifications to parking layout and introduction of raised crossings at the junctions with William Street.
Coates Crescent	<ul style="list-style-type: none"> • Quiet Street improvements along Coates Crescent – with provision for Contraflow cycling along the 1 way street
Canning Street	<ul style="list-style-type: none"> • Public realm improvements and provision for Contraflow cycling along the 1way street

Rutland Square	<ul style="list-style-type: none"> • Introduction of Contraflow cycle lane between Canning Street and Lothian Road.
	<ul style="list-style-type: none"> • Improved access facilities towards Rutland Court.
Queensferry Street	<ul style="list-style-type: none"> • Refurbish existing junction with at Randolph Place with additional cycle facilities between Melville Street and Randolph Place.
Randolph Place	<ul style="list-style-type: none"> • Public Realm improvements including raised table crossing at West Register Lane.
Charlotte Square	<ul style="list-style-type: none"> • Public Realm improvements to Charlotte Square including junction Improvements and new crossing facilities on Charlotte Square towards George Street & Rose Street.
Hope Street	<ul style="list-style-type: none"> • Quiet Street improvements along Hope Street and new crossing facilities towards Lothian Road to be developed further.
George Street	<ul style="list-style-type: none"> • New cycle facilities full length of George Street (Separate project).
St Andrews Square	<ul style="list-style-type: none"> • Junction Improvements and new crossing facilities on St Andrews Square towards George Street. • Quiet Street improvements for access towards West Register Street and Multrees Walk.
North/South St David Street	<ul style="list-style-type: none"> • Two-way protected cycle track (Eastside) between Princes Street and York Place. • Realignment of existing footway and creation of bus stop bypasses.
York Place	<ul style="list-style-type: none"> • 2 way protected cycle track (Southside) between North St David Street and Picardy Place junction. • Improved pedestrian & cyclist facilities at the junctions with North St Andrews Street & Elder Street.
Princes Street	<ul style="list-style-type: none"> • Two-way fully protected cycle track on Princes Street towards Waterloo Place (Northside). • Improved pedestrian & cyclist facilities at the junctions with South St Andrews St, Waverley Bridge & Waterloo Place.
Waterloo Place	<ul style="list-style-type: none"> • New cycle facilities to create an access facility to new cycletrack on Princes Street.

Appendix 5

Roseburn to Leith Walk cycle route - Project programme

Ongoing internal stakeholder design discussion	Ongoing 15	30 September 15
Briefing to Transport Forum & Active Travel Forum	21 August 15	03 September 15
Pre Consultation briefings (Head of Transport, Transport Convenors, local ward Elected Members)	26 August 15	16 September 15
T&E Committee - Approval to proceed with public consultation for the preliminary design		27 October 15
Consultation period (Inc Survey, Drop in sessions, Community Council Presentations)	November 15	18 December 15
Consultation Review Stage inc Design revisions, public update and proposals	18 December 15	12 February 16
T&E Committee - Design approval and proceed with TRO Process		15 March 15
TRO & RSO Process	March 16	August 16
Detailed design, procurement, tender and appointment of Contractor	April 16	March 17
Stage 1 – Roseburn to Haymarket Terrace	April 17	August 17
Stage 2 – Haymarket Terrace to Melville Street	2017-18	
Stage 3 – Melville Street to Charlotte Square	2018-19	
Stage 4 – St Andrews Square to Picardy Place/Waterloo Place	Link with St James Development/Picardy Place and St Andrews Square schemes	

Appendix 6

Roseburn to Leith Walk cycle route - Cost estimates

Part A – Current Cost Estimates

Stage 1 Roseburn Park to Haymarket Terrace	£800,000
Stage 2 Haymarket Terrace to Melville Street	£400,000
Stage 3 Melville Street to Charlotte Square	£2,200,000
Stage 4 St Andrews Square to Picardy Place & Waterloo Place	£2,000,000
Sub Total	£5,400,000
Estimated Utility Diversion Fees (10%)	£200,000
Total Construction Fees	£5,600,000
Standard Construction Fees Optimism Bias (44%)	£2,500,000
<i>Design Fees (10%)</i>	<i>£540,000</i>
<i>Design Fees Optimism Bias (32%)</i>	<i>£170,000</i>
Total Cost Estimate	£8,810,000

Note

The addition of Optimism Bias to scheme costs is recommended good practice during earlier stages of project development. This reflects an allowance for unforeseen expenditure and is commensurate with the early stage of development design. It can be reduced as design advances.

Part B – Other Capital schemes coinciding with proposed route –
Estimated Costs

Charlotte Square – Capital Maintenance	£500,000
York Place – Capital Maintenance	£200,000
Remodelling of Picardy Place/Leith Street	TBC
St Andrew Square Public Realm improvements	£3,600,000
George Street Public Realm improvements	TBC

Note

Estimated Costs

Part C – Potential funding sources

Sustrans Community Links	Up to 50% funding
European Union Sustainable Transport Fund	Up to 40% funding
Heritage Lottery or Big Lottery Funding (Melville Street/Walker Street project).	TBC

Note

The funding sources listed in Part C have potential to be matched with the funding already budgeted for the projects outlined in Part B and, in addition with allocations from the Councils Cycling Capital Budget.