

NORTH LIVINGSTON BLUE/GREEN NETWORK MASTERPLAN REPORT

2019

CONTENTS

Background
Surveys
Consultation
Proposals
Ongoing Community Involvement and Partnering
Action Summary and the Future
Potential Project Packages
Costs

Appendices

APPENDIX 1 – North Livingston Blue Green Network Study Area

APPENDIX 2 – Draft Master Plan L01 for Consultation

APPENDIX 3 – Woodland Survey Information for Consultation

APPENDIX 4 – Watercourse Survey for Consultation

APPENDIX 5 – Drainage Strategy Plan

APPENDIX 6 – Signage Strategy Plan

APPENDIX 7 – Artwork Strategy Plan

APPENDIX 8 – Detailed Plans L02-L09

APPENDIX 9 – Site Specific Comments Plan

APPENDIX 10 – Routes Strategy Plan

APPENDIX 11 – Consultation Report

BACKGROUND

The Brief

West Lothian Council has been awarded a grant allocation from Central Scotland Green Network Development Fund for 2017/18.

A consultant-led feasibility study was awarded to Mike Hyatt Landscape Architects. The study has been undertaken between November 2017 and May 2018 identifying potential improvements to the Livingston North Blue / Green Network. This will focus on 5 connecting corridors:

- Nell Burn,
 - Folly Burn (including Peel Park),
 - Lochshot Burn,
 - Howden Park (Woodland corridors up to Ladywell), and
 - Almond Riverside (including Almondvale Park, but for Woodland Management ONLY)
- covering approximately 7-8km in the north part of the former New Town. See [appendix 1](#) for location plan.

The project aims to enhance the quality and improve the connectivity and functionality of the 'Greenways' through Livingston North for the benefit of local people, visitors and wildlife.

In 2013, the CSGN Development Fund previously awarded £75,000 to develop and deliver a full programme of public consultation, and improvements to woodland, greenspace, wetland and paths in the Dedridge Burn and Murieston Water corridors; i.e. the Livingston South Blue / Green Network. The CSGN fund now supports a feasibility study for similar work on the Livingston North Network.

Working with West Lothian Council, a Steering Group has been established involving:

- Planning Services,
 - Flood Risk Management Team,
 - NETs, Land and Countryside Services [Parks & Woodland] and [Open Space Team]
 - Woodland Trust Scotland Woodland Officer responsible for their Livingston woods
 - CSGNT's Development Officer for West Lothian.
- and eventually, local community groups (to be identified by the council);

A consultant, after conducting an audit and walking the length of all 5 burn corridors, would:

- organise some focused community consultation;
- prepare a masterplan and report identifying environmental improvement opportunities;
- prioritise these opportunities;
- also prepare outline works specifications and approximate costs for potential projects; and
- prepare and submit two Urban Woodland Management Plans to Forestry Commission Scotland for two blocks within the study area.

The masterplan would aim to improve the currently fragmented green and blue spaces and foot / cycle paths in the area and build on the Livingston South Blue / Green project's successes and lessons.

A separate, but related consultant, Mott MacDonald has been appointed by WLC Flood Risk Management Team to provide advice on the hydrology and geomorphology opportunities provided within the study area; particularly those relating to Eliburn Reservoir and the Nell Burn Pond restoration.

Mike Hyatt liaised closely with Mott MacDonald and also appointed Mark Hamilton Landscape Services to provide the Urban Woodland Management Plans (UWMP).

On discussion with the Steering Group on timescales and likely available funding, it was decided not to pursue the UWMP at this stage.

While some of the specialised water environment work and larger forestry works will be undertaken by contractors, projects are also identified that could be undertaken by WLC staff and local community groups.

Some of the potential physical improvements proposed in North Livingston include:

- Improving the existing corridors and parks for public use and ecological benefit;
- management of existing, neglected woodlands;
- pond restoration and new wetland creation;
- creation of new swales and wildflower meadows;
- planting of small, new areas of woodland or individual specimen trees;
- bespoke community art work on several underpasses and under bridges (that would be advanced separately); and
- path upgrades and the installation of new interpretation and seating.

Outputs:

The masterplan study will:

- Identify blue/green network opportunities through 5 separate blue/green corridors surveyed, audited with potential costed environmental improvements;
- Prepare a final report including rationale, methodology, details of consultations, suggestions, priorities, maps, plans, costs, recommendations including community projects, and appendices.
- Undertake approximately four community consultation events in early 2018 to identify and prioritise improvements and determine potential community projects.
- Notify and involve local councillors, community councils, WLC NETS staff and Rangers in the above consultations.
- Prioritise and produce outline specifications and approximate costs for individual projects to be prepared for either a contractor, or volunteer groups, and to enable other grant funding bids
- Outline how identified community projects could be undertaken by local volunteers / groups along the network corridors, including Corporate Responsibility Groups from businesses adjacent the green corridors.
- Woodland and path improvements to be prepared and submitted to Forestry Commission Scotland

SURVEYS

Landscape Survey

A cycling/walking survey of the network was carried out in October/November 2017 by Mike Hyatt of MHLA, Becky Plunkett and Shona Collins of WLC. and identified:

- action is required to safeguard the existing infrastructure such as through:
 - improved drainage
 - vegetation clearance
 - path surface repairs and upgrades to better surfaces
- potential exists to enhance the network through
 - new path links
 - improved signage and entry markers
 - additional seating,
 - new woodland planting

The results of the survey were set out on the draft masterplan drawing in [appendix 2](#). This plan was used in the consultation events and put online on the WLC website

Woodland Survey

The survey of woodland within the project area was carried out by Gordon Walker of Mark Hamilton Landscape Services and Jane Begg of WLC in Spring 2018, the survey identified:

- action is needed for woodland management or safety reasons
 - areas of restricted access for woodland management identified
 - need for restructuring woodland
 - restructure shelterbelts and avoid/resolve issues along edges shared with housing
 - issues with mature and over mature trees particularly where located along paths and publicly accessible areas
 - lack of adequate management access onto greenways and narrow bridges, restrict access for woodland and other land management
- potential to enhance the woodland by:
 - rejuvenating parkland tree groups in Howden Park
 - increasing public access/use of woodland as a visitor attraction asset for Livingston
 - integrate woodland works with those on watercourses and paths to reduce costs and damage and disturbance to the vegetation and infrastructure
 - improve links with Woodland Trust sites and have an integrated approach to woodland management across Livingston
 - potential to increase woodland cover at various locations including long River Almond

The findings of the survey can be found on plans used for the consultation in [appendix 3](#)

Watercourse Survey

The watercourses Lochshot, Nell and Folly Burns were surveyed by Mott MacDonald engineers as well as SEPA's local River Basin Planning Co-ordinator and representatives from the Forth Rivers Trust (formerly River Forth Fisheries Trust). The survey identified:

- issues relating to:
 - historic straightening of certain sections of the burns
 - poor water quality
 - many sections of artificial bank protection, culverts, outfalls
 - pipe crossings
 - river bank erosion where public can get access
 - restricted access
 - constraints from adjacent structures such as footpaths and bridge abutments
 - some blockages preventing upstream fish passage
- potential to enhance watercourses by:
 - realign channels to create more natural platform through increased sinuosity
 - remove hard bank protection where no need exists
 - increase habitat diversity along banks by reprofiling
 - investigate specific sewer outfalls to improve water quality
 - create natural pool-riffles and check dams through application of woody debris
 - revegetate damaged banks with native riparian plants
 - stop grass mowing within 3-4 m of the bank
 - specifically for Eliburn Reservoir: provide a fish pass at the dam structure, improve spill structure, dredge forebay to reduce sedimentation rates, modify track culvert to be more natural
 - reintroduce wetland and pond features to improve habitats

The full survey findings can be found in [appendix 4](#)

need to make more of the river side views



approaches to underpasses uninviting



vegetation needs to be cleared along path edges



drainage and surfaces to be upgraded in some areas



signage inconsistent and confusing



timber seating at the end of its life needing to be replaced



CONSULTATION

The full consultation report can be found in [appendices 11](#)

Scope of Consultation

Online questionnaire - A Survey Monkey questionnaire was set up on West Lothian Council Website with links to it from other relevant web pages on the WLC website

Participants such as of local organisations, community councils, community groups, schools and other relevant organisations, such as businesses abutting onto the greenways, were invited to comment to try and stimulate discussion and complete the questionnaire.

Consultation Events - Five consultation events were organised at venues within the study area. These included Howden Park Centre, Carmondean Library, Almond Valley Heritage Centre and Livingston Station Community Centre. A large map was the centre piece of the exhibition, indicating where issues and opportunities have been identified through the survey work to that date. Likewise, boards showing woodland and water course issues and opportunities and examples from elsewhere of similar successful blue / green improvements were presented on separate boards to try and stimulate discussion. See [appendices 1, 2, 3](#) for display boards.

Feedback was recorded through Postits and some hand-written versions of the questionnaire.

Conclusions

The consultation process has provided some clear indications to where the users of the blue/green network see the issues and opportunities. Priorities for action are set out below, please note these are not in any order of priority:

- Upgrade signage
- Promote the path network better including providing maps to show how the network links up
- Address drainage issues
- Improve path surfaces where required
- Clear areas of rubbish, broken glass and fly tipping
- Cut back vegetation
- Use art to add interest and colour to routes and make underpasses more welcoming (address some of the barriers to use, antisocial behaviour, underpasses)
- Respondents endorsed the draft masterplan ideas and improvement approach

It should be noted that 13 people left their contact details as part of the on-line survey, so that they can be kept informed of developments and it is hoped they can be engaged by Countryside Services in aspects of the improvement works.

The initial draft masterplan was refined, based on these results, showing how to tackle the physical improvements needed. As it stands the masterplan received strong endorsement through the responses to Question 8 in the online questionnaire, so added refinement and detail based on the existing approach, would seem the best way forward.

There was support expressed for upgraded furniture, bins, seats, interpretation, viewpoints and additional routes added to the network. These can be developed further through next stage of the design work.

Success of the Consultation Process

The number of responses to the online survey ranged from 18-41 responses depending on the question and at the open events 77 people provided responses. These responses give a robust set of data on which to develop the proposals to the next detailed stage. Anecdotally at the consultation events the responses overwhelmingly came from people in their 20s and over. Also, anecdotally the gender split was roughly equal. None of this detail can be gained from the online questionnaires but it is likely that a similar demographic was responding. However there does not appear to be full representation from young people or those with disabilities and it would be worth trying to gain some additional responses from schools and disability groups. This would make sure that any detailed aspects of the project that may meet the needs of these groups are not overlooked.

Ongoing Consultation

Recently an additional mini-consultation was conducted by WTS and WLC staff regarding the Livingston Woods at a "Wild Wednesday", family wildlife event, held at Peel Park. The event was attended by >300 people and >20 questionnaire responses revealed that there was unanimous appreciation of the Livingston's "green" environment. Photos were also used to prompt discussions and suggestions for improvements.

Ongoing consultations should be considered as part of any proposals to carry out work on site to inform, gain useful feedback and explore opportunities for local residents, visitors and those working in the area to be involved.

consultation events held at various venues around North Livingston



PROPOSALS

Meeting the Users Needs

The consultation showed that local residents and visitors have a very positive attitude to the blue/green network with the emphasis on looking at ways to fix any issues with current usability, sorting out drainage and path surfaces etc. The path network was developed by Livingston Development Corporation in the 1980s and early 1990s and this study is the first strategic review of how the network is functioning. This review has looked at its physical state, whether it is meeting users' needs and identifying opportunities to enhance the network, including woodland and watercourse works.

Strategic Overview

MHLA looked at how the combination of open spaces, parks, and green/blue corridors work as a network. Other areas also explored were, how it can be understood by users and how it combines a variety of circular as well as strategic link routes.

Some elements of the work are also best undertaken on a strategic basis including:

- **Addressing drainage issues** – at a number of locations water crossing paths makes paths difficult to pass and a serious hazard when frozen. Swale type drainage to be installed as opposed to ditches that block easily. Ponding in some underpasses also needs to be addressed to make these passable in wet weather, see drainage strategy plan in [appendix 5](#)
- **Re-signing the routes** - some signs are in poor condition, a mixture of signs from different periods creates inconsistencies, more signs are needed to allow users to navigate the green network, as indicated in signage strategy plan in [appendix 6](#)
 - WDC Roads commissioned Dougall Baillie Associates to produce supporting information for a new signage strategy for cycling and walking routes in Livingston which was delivered in May 2018. The Alderstone Route linking the two railway stations in Livingston has been chosen as a pilot project, designed up in detail.
 - Woodland Trust Scotland have funding to produce woodland walking maps for their woodland in Livingston to be produced 2018/19
 - Spokes are updating their cycling maps for Livingston in 2018.The above will help users navigating the Green Network, but recreational circular routes are not being covered. The consultation process highlighted the popularity of the Green Network for recreational walking and paper maps and strategically placed map boards will encourage greater use of the network
- **Art works** – a strategic approach to providing art works in the environment can promote further the existing sculpture trail in central/north Livingston. This can add more attractions encouraging increased visitors to use the blue/green network enhancing it as a sculpture trail. Art works can also help identify entry points and junctions in the network aiding navigation. Art works can enhance the environment in places users find are off putting such as underpasses, although artworks here must be combined with coordinated environmental enhancements. Engagement of the local community in the process can also improve their perceptions of the green network. See the artwork strategy map in [appendix 7](#)

Detailed Proposals

Plans setting out the detailed proposals for the NLBGN are shown on a series of plans L02-L09 in [appendix 8](#). Including a detailed breakdown of proposed works indicated on the plans. The key actions are set out below:

Green Network

- **Path Upgrades** – works include resurfacing worn areas and wheel dust paths, improve drainage, clear encroaching vegetation to original path width

- **Additional seating** – provide seats or perches that will encourage greater use of paths and open spaces. Perches and seats that allow less able walkers to use the paths
- **Improved signage** – provide an updated suite of direction signs as well as markers for specific designated routes, such as the Park Run. Help identify routes with entry markers.
- **Help navigation and understanding of the path network** – provide more map boards allowing people to better orientate themselves. In difficult to navigate routes through housing estates that separate the green network, provide markers and possibly symbols on the path surface (Subject to agreement with WLC Transportation Unit as roads authority)
- **Vegetation clearance** – some paths are overgrown putting off users, clearance would increase use of the green network
- **Additional tree planting** – where appropriate, additional trees are proposed to sustain and enhance existing woodland structure or sustain features such as the tree roundels in Howden Park
- **Meadow areas** – converting areas of mown grass to wildflower meadow helps reduce grass cutting and enhances habitat for invertebrates
- **Artworks** – there was a strong desire from users to have more points of interest along the routes including artistic interventions, also as ways to help navigate giving identity to path intersections that can look similar
- **Interpretation** – as above there was a desire to understand more about the history and natural environment that can be observed from the green network
- **Viewpoints** – opportunities exist to enhance the experience for users of the blue/green network by identifying viewpoints, providing interpretation and in some cases viewing platforms along the Almond River exiting the ones already installed

Underpasses

The site-specific comments received during the consultation process, identified four underpasses to be improved to make the green network more usable. These are highlighted on the site specific comments strategic plan in [appendix 9](#). There was also a desire to improve drainage as indicated on the strategic drainage plan in [appendix 5](#). Currently some underpasses are impassable in wet weather.

Layout plan L03.3 also shows the Howden Park underpass. The grey concrete has been improved with a high quality mural, but the approaches still require the vegetation to be significantly reduced to improve feelings of safety, maximise the benefit of the artwork and complete the improvements, see [appendix 7](#)

New Path Links

Through the survey and consultation process a number of 'missing' or new path links were identified. These are shown on the routes strategy plan, [appendix 10](#) and the site specific comments strategic plan in [appendix 9](#). Some of these routes require negotiation with other partners and landowners such as WTS and Shin-Etsu to allow them to progress. Some proposed paths cross development sites and can be implemented as part of Planning Conditions for developers to fulfil.

Integration with Woodland Management

The woodland management proposals require access for heavy machinery into more isolated parts of the blue/green network. This will require new access points designed into any improvement works and require close coordination with other proposed works. This is to avoid unnecessary damage to any new works by heavy machinery. Bringing heavy machinery into riparian areas and restructuring riparian woodland, gives the opportunity to carry out watercourse improvements at the same time in coordinated improvement projects, making more efficient use of available funding.

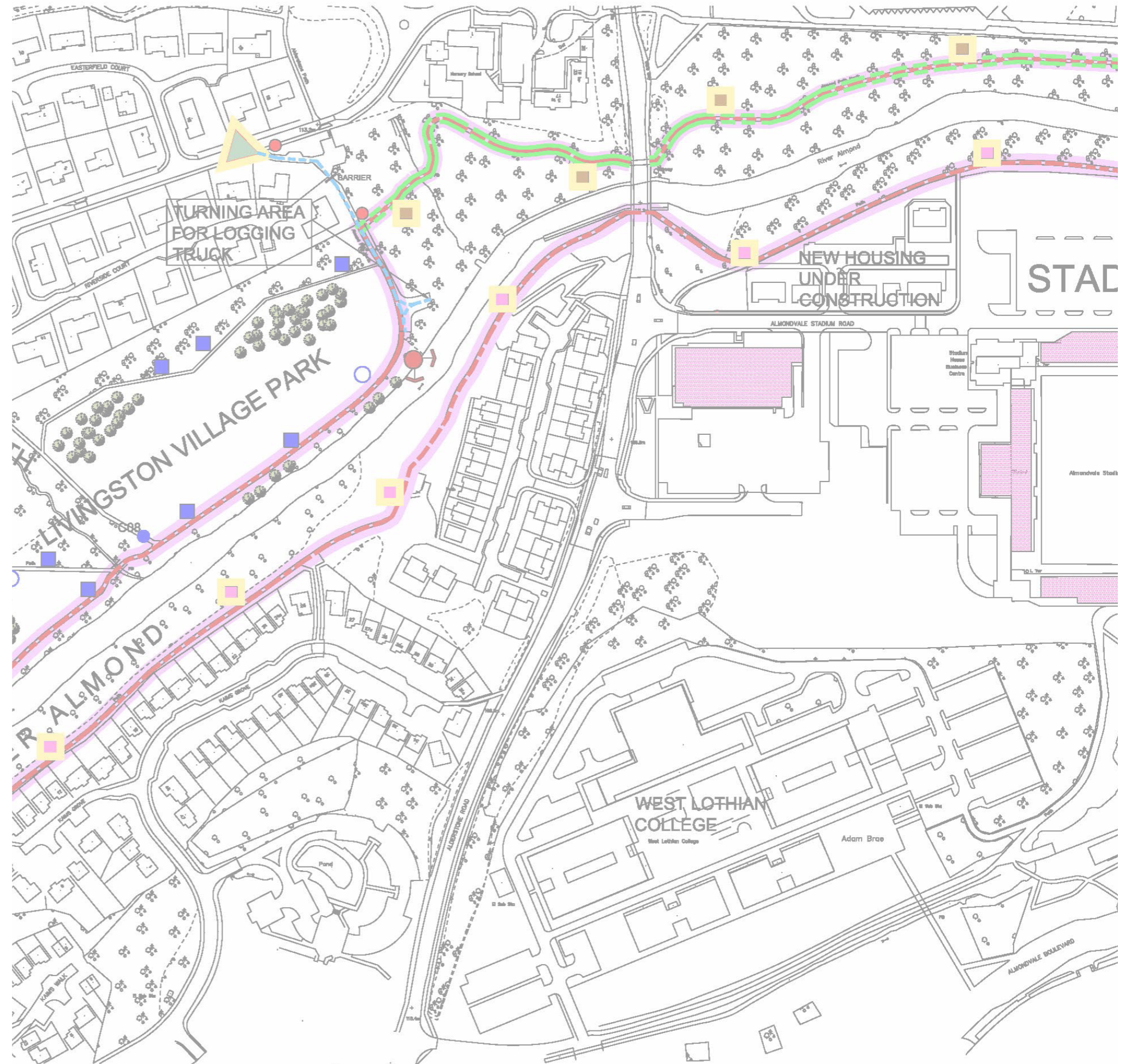
Integration with Watercourse Improvements

Watercourse improvements have the potential to contribute significantly to enhancing the amenity of the blue green network as well as improving the biodiversity of the network and reducing flood risks. Some watercourse engineering can be very expensive, but an opportunity exists to implement the work incrementally as part of other improvement projects such as a riparian woodland restructuring as noted above or path upgrades

Maintenance and Sustainability

Key to the success of blue/green improvement works is in making sure that long term sustainable maintenance can be achieved after the works are complete. As part of the consultation process we have discussed a maintenance strategy with NETS team. Any environmental works will be maintained from a landscape maintenance budget that is reducing year on year. To address this issue we are:

- Identifying areas where grass can be left to grow long or be converted into wildflower meadow
- Clear back vegetation from paths and replace with mow-able verge to control any regrowth across path. This should reduce complaints and expensive reactive maintenance visits
- Improve path structure and drainage reducing reactive maintenance visits and long-term durability of the path surfaces
- Improve access for mechanised maintenance vehicles for grass cutting, litter, leaf collection etc
- Planned tree and woodland operations some of which may be eligible for grant rather than dealing with numerous ad hoc requests for service



detailed plans of proposals

ONGOING COMMUNITY INVOLVEMENT AND PARTNERING

The project has many potential collaborators and partners. This potential was highlighted by the positive responses received during the consultation process and contacts made with groups and individuals who could be involved in developing the blue green network.

Key potential collaborators

Schools – Rangers already have lists of contacts within schools and can use these to develop greater use of the blue/green network for the 'Daily Mile' and Forest Schools. Many schools that have Forest Schools trained staff have to take their classes to woodland away from the school. In Livingston woodland with the potential to be used as a learning resource, is on their door step

Community and user groups – the consultation revealed significant use of NLBGN by groups such as Park Run, various walking groups and interest from cycling charities. They indicated that they were happy to be involved in a more hands on way. There is a lack of constituted community groups interested in the NLBGN in contrast to SLBGN. Where there were a specific number of environmentally / geographically orientated groups

Businesses – Starlaw Park / Tailend Park and Eliburn Campus provide businesses with opportunities to fulfil their corporate responsibility objectives

West Lothian College at Almondvale – many students use the blue/green network to get to the campus and their cycling officer is keen to be involved further in the projects (he attended one of the consultation events and is keen to be involved further in any potential projects)

NHS – potential to develop opportunities for therapeutic activities in Howden Park and the Walled Garden with the adjacent Howden Health Centre and St John's Hospital

Visitor Attractions – Almond Valley Heritage Centre, Howden Park Centre, the consultation showed that there are links between visitors to these facilities and use of the adjacent blue/green network, these could be strengthened through ongoing collaboration. It highlights the close relationship between places to park, places for refreshments and leisure walking routes

Partner landowners

Woodland Trust Scotland and Shin-etsu control land where we have identified new links that would enhance the green network. As part of the next steps for this project discussions should take place to gain some agreement to the proposals or feedback on alternatives.

ACTION SUMMARY PRIORITIES AND THE FUTURE

Possible Green Network Projects in Order of Priority

Deciding on which projects to take forward will be dependant on many factors such as availability of funding, priorities expressed from the consultation and ease of implementation. We have provided an initial possible list as below. Projects have been prioritised according to: most impact on users, availability of funding for the particular type of project, frequency it was highlighted through the consultation process, fits with blue/green network aspirations, addresses maintenance issues creating reduced long term costs and greater sustainability.....

1. Park Run Route – the most heavily used route with the greatest need for improvement is this 5km Park Run route, see plan L02 **£194,984**
2. Woodland management proposals – to be submitted as a WIAT bid in summer 2018, that not only includes woodland restructuring but includes path improvements, upgrades access points for woodland management, seating, see woodland management plans for Almond River Woods and Eliburn, Peel & Howden Park Woods **£499,055**
3. Vegetation clearance – areas requiring clearance are indicated on plans L02-L09. Include the restructuring of planting at the Howden Park underpass as shown on plan L03.3 **£44,412**
4. Drainage improvements – locations for improvements are indicated on the drainage strategy plan
5. Peel Park – park improvements as shown on plan L09 **£115,720**
6. Almond Pools to Southern Almond Link – selected improvements as shown on plan L05 **£55,104**
7. Lochshot to Livingston Village route – selected works as shown on plan L04 **£154,124**
8. Howden Park Centre Eco Park – works as shown on plan L03.2 **£206,154**
9. Eliburn Park – park improvement works integrated with woodland management works as shown on plan L08 **£256,193**
10. Tailend Moss – bringing a redundant access road into use as a footpath, as shown on plan L06 Landownership to be checked? **£11,025**
11. Nell Burn to Follyburn Links – create a network of circular walks integrating with WTS paths **£37,512**
12. Howden Park – expanding the tree roundels and introducing wildflower meadows, as plan L03.1 **£109,232**

NB, above costs are works costs only and do not include preliminaries, contingencies or vat.

Possible Blue Network Projects in Order of Priority

Detailed information can be found in [appendix 4](#)

1. Improved fish passage
 - a. Removal of fish barriers by diverting utility pipe crossings (PC01, PC02, PC03)
 - b. Replace hard bed protection beneath bridge crossings with local boulders to increase flow diversity (C03, C04)
2. Habitat improvement
 - a. Within riparian zone and improved river bed substrate at various locations along the 3km stretch of the Lochshot Burn
3. River realignment
 - a. Replace straightened sections from Tailend Moss to Eliburn Road with a more natural meandering channel (LS01, LS02, LS03)
4. Blue priorities are low for the Nell Burn:
5. Improved fish passage
 - a. Two Stone weirs removed, and wetland areas created
 - b. Fish pass constructed at the dam spillway

POTENTIAL PROJECT PACKAGES

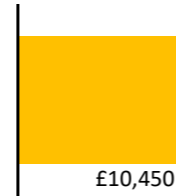
We have created a potential split of the proposals as shown on the landscape drawings 512 L02-L09 and the Blue network improvements, into project packages. This is a draft with the aim that it is refined through further discussions.

NORTH LIVINGSTON BLUE GEEN NETWORK

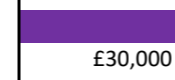
POSSIBLE PROJECTS

	Park Run route, Shin-Etsu and drainage works	Path Upgrades across N Livingston (expanded Project 1) Blue Projects	Howden Park, Howden Ctr Eco park and Tailend Moss	Art Project along Green Network	Eliburn Park to Follyburn Improvements	Peel Park	Almond pools and new bridges across the River Almond	Signage Strategy works - map boards only
	Project Group 1 Priority project	Project Group 2	Project Group 3	Project Group 4	Project Group 5	Project Group 6	Project Group 7	Project Group 8
DWG								
L02	Park Run Route							
	1 Park Run route path upgrade blaes/whin dust surface							
	2 Additional seating in stainless steel seats, timber perches, log seats							
	3 steel viewing platforms and interpretation							
	4 new tree planting							
	5 vegetation clearance							
	6 new access and turning area for machinery for woodland management							
	7 new signage/entry markers							
	8 new map boards							
	£194,984	£194,984						£4,800
L03.1	Howden Park General							
	1 new tree planting to extend woodland roundels in park							
	2 create wildflower zones around roundels							
	3 vegetation clearance along paths and access points and to open up views							
	4 new map board							
			£137,626					
L03.2	Howden Park Centre Eco Park							
	1 reshape wetland pools to increase their size and biodiversity potential							
	2 create a circular path network in 1.5m wide Ultitrec							
	3 new stainless steel and informal log seats							
	4 create a paved outdoor seating space and viewing area							
	5 new tree plating including in the car park							
	6 entry feature/signage/map board							
	7 art work around the path as a mini sculpture trail							
	8 support community use of the walled garden including signage							
			£163,122	£40,000				

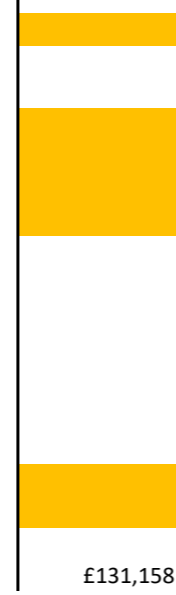
- L03.3 **Underpass Works**
- 1 vegetation clearance and replant with ground cover
 - 2 vegetation clearance and turf
 - 3 plant specimen shrubs
 - 4 power wash and repoint walls



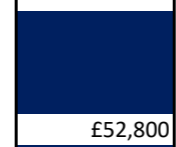
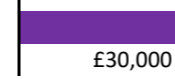
- L04 **Lochshot Burn to Livingston Village**
- 1 upgrade whindust path
 - 2 vegetation clearance along paths
 - 3 create access for heavy woodland management machinery
 - 4 new woodland tree planting
 - 5 new signage and markers to allow navigation through the housing estate
 - 6 new signage strategy to incorporate existing paths to create new designated routes
 - 7 new map boards
 - 8 create viewing area and interpretation on old stone bridge
 - 9 opportunities for art along the upgraded path to add interest along the route
 - NB possible new pedestrian link across the Almond river (see L05)



- L05 **Almond Pools**
- 1 upgrade existing path, improve whin dust surface and add drainage
 - 2 short section of new tar path on desire line
 - 3 new tar path in development site
 - 4 resurface car park in type 1 and improve drainage
 - 5 new Path 1 - create new riverside path link on south bank of the Almond, incorporating existing path, include vegetation clearance and creating view points
 - 6 possible new pedestrian link bridge at Heritage Centre
 - new path 2 - new cycle/walking path link to NCN 75, will give access to proposed new
 - 7 housing development
 - 8 possible new pedestrian link bridge at Almond Pools
 - 9 new signage and entry markers for paths
 - 10 better signage for cycle route
 - 11 create steel viewing deck and interpretation at fish pass
 - 12 new seating, stainless steel and informal logs
 - 13 new map board 2no
 - 14 artwork potential for under bridge and at key points along paths



depends on future housing development



L06	Tailend Moss 1 reinstate 3m wide tar path link to existing cycle track at Shin-Etsu 2 upgrade existing path, clear vegetation back on existing tar surface 3 possible new link path to give circular route link to above 4 small timber bridge 5 new signage and entry markers 6 new interpretation board 7 new map board 2no 8 possible watercourse improvements 9 opportunity for art as entry marker							
		£10,000	£67,246	£128,203	£10,000			£2,400
L07	Upper Nell Burn 1 upgrade existing blaes path to 3m tar on key route to school and improve drainage 2 new extension to the Railway Path South across development sites 3 vegetation clearance 4 possible watercourse improvements 5 new signage/entry marker 6 new map board 7 opportunity for art at underpass	£53,000	include as part of development site works				£6,124	£2,400
					£2,000			
L08	Nell Burn to Follyburn Links Including Eliburn Park & Woodland 1 repair existing whindust paths 2 upgrade existing path track to 1.5m Ultitrec liaise with WTS 3 new whindust path link liaise with WTS new signage and entry markers incorporating new circular path routes and including 4 improved signage and markers to help navigation through housing estate create a woodland management access for heavy vehicles and route to extract timber, 5 include realignment of fence and creation of causeway across flush 6 vegetation clearnace along path routes 7 create swale and or reedbed to filter drainage runoff from grass pitches 8 relocate picnic tables 9 new map boards showing new circular path routes 10 opportunity for art at key path entry points							
								£2,400
					£10,000	£143,761		
L09	Peel Park 1 refresh park by repainting benches and topping up paths replace dead, poorly growing and missing avenue trees with fruit trees to create a linear 2 orchard 3 provide boundary screen planting to hide untidy boundaries to surrounding gardens 4 provide signage /entry features 5 vegetation clearance along paths 6 new map board create wildflower meadows to add interest and reduce mowing, create maze like paths 7 through part of meadow to add interest to park 8 opportunity for art at key path entry points Blue Opportunities Lochshot Burn improvements (funding bid to SEPA)							
								£2,400
					£10,000	£115,720		
			£170,000					
L01 MAST	Art Strategy							
					as above			
L01 MAST	drainage improvements	£20,000						
L01 MAST	Signage Strategy							
	Livingston Signage Strategy by Dougall Baillie Associates							

COST

£277,984	£727,962	£428,951	£132,000	£143,761	£115,720	£142,224	£24,000
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COSTS

Costs have been prepared by ADA Construction Consultants Ltd based on the landscape drawings 512 L02-L09, included are also the WIAT costings (Woodland In and Around Towns). These have been provided by Mark Hamilton Landscape Services and are specifically for a bid to the Forestry Commission Scotland for two WIAT grants. The spread sheet highlights what elements of the landscape works would be included, however the WIAT grant would only pay for a basic specification and it might be that an enhanced specification, such as stainless steel instead of timber for seats, is required.

The two sets of costs are included on the spreadsheet for completeness.

NORTH LIVINGSTON BLUE GREEN NETWORK

		Unit	Quantity	Rate	A £	Potential WIAT Funding As (FCS specification (low spec.))			B £	
						Qty	Unit	Rate		
RA	Drawing L02B - Park Run Route									
1	Park Run route path upgrade blaes/whin dust surface	m ²	3582	14	50,148				22,678	
2	Additional seating in stainless steel seats, timber perches, log seats									
	Perch seats Blueton stone cubes	Nr	7	900	6,300					
	Stainless steel seats Blueton 09155	Nr	14	1,100	15,400	Timber bench	2	Nr	350	700
	Informal log seats	Nr	5	120	600	Timber perch seat	12	Nr	200	2,400
	Stainless steel picnic table Blueton 088ms	Nr	2	1,650	3,300	Timber picnic bench	2	Nr	700	1,400
									4,500	
3	Steel viewing platforms and interpretation	Nr	2	30,000	60,000	Timber/plastic boardwalk	0	m ²	91	-
4	New tree planting; 600mm bareroot; 1nr tree every 2m ²	m ²	2511	5	12,555	Individual standard trees	0	Nr	100	-
5	Vegetation clearance	lm	790	2	1,580	Manual brashing (path corridor)	790	lin m	1.09	861
						Manual brashing (housing edge)	320	lin m	1.09	349
6	New access and turning area for machinery for woodland management	Nr	1	4,000	4,000	New semi-bound path	295	m ²	28.15	8,304
						Vehicle Barrier	1	Nr	688	688
						Post and Rail fencing	0	m ²	7	-
									8,992	
7	New signage/entry markers	m ²	6	1,300	7,800	Secondary signs	6	Nr	188	1,128
8	New map boards	m ²	2	2,400	4,800	A1 Information Panel	5	Nr	992	4,960
					166,483	Waymarker	1	Nr	29	29
									56,989	
3	Preliminaries - 18%				29,967					
10	Contingencies - 5%				196,450					
					9,822					
11	Total Works Cost				206,272					

		Unit	Quantity	Rate	A £	Potential WIAT Funding				B £	
						As (FCS specification (low spec.))	Qty	Unit	Rate		
EFH	Drawing L03.1C- Howden Park General										
1	New tree planting to extend woodland roundels in park; 600mm bareroot 1nr tree Create wildflower zones around roundels	m²	5426	5	27,130	Small scale tree and shrub planting	350		3	1,050	
2	Create wildflower zones around roundels	m²	41051	2	82,102	Individual standard trees	0	Nr	100	-	
3	Vegetation clearance along paths and access points and to open up views	Lm	923	2	1,846						
					111,078	Manual brushing (path corridor)	0	lin m	1.09	-	
						Rebuild path (unbound)	356	m²	18.2	6,479	
						Secondary signs	3	Nr	188	564	
						Waymarker	1	Nr	29	29	
										8,122	
4	Preliminaries - 18%				19,994						
5	Contingencies - 5%				131,072						
6	Total Works Cost				6,554						
					137,626						
EFH	Drawing L03.2C - Howden Park Centre Eco Park										
1	Reshape wetland pools to increase their size and biodiversity potential	m²	1507	11	16,577						
	Wildflower meadow	m²	4974	2	9,948						
2	Create a circular path network in 1.5m wide Ultitrec	m²	923	31	28,613	New path (semi-bound)	1148	m²	28.15	32,316	
3	New steps to circular path network	Nr	30	420	12,600	Timber and aggregate steps	0	lin m.	150	-	
	New stainless steel and informal log seats										
4	Stainless steel seats Blueton 09155	Nr	3	1,100	3,300	Timber bench	3	Nr	350	1,050	
5	Information log seats	Nr	11	120	1,320	Timber perch seats	11	Nr	200	2,200	
6	Create a paved outdoor seating space and viewing area	m²	64	110	7,040	n/a					
7	New tree planting including in the car park; 600mm bareroot 1nr tree every 2m²	Nr	378	5	1,890	Individual standard trees	0	Nr	100	-	
8	Bound gravel surfacing to car park	m²	38	36	1,368	New semi-bound path	0	Nr	28.15	-	
	Entry feature/signage/map board										
9	Entry features	Nr	2	1,300	2,600						
10	New map boards	Nr	1	2,400	2,400	A1 interpretation board	2	Nr	992	1,984	
11	Art work around the path as a mini sculpture trail	m²	4	10,000	40,000						
12	Support community use of the walled garden including signage	Sum	1	4,000	4,000	Waymarkers	3	Nr	29	87	
					131,656					37,637	
13	Preliminaries - 18%				23,698						
14	Contingencies - 5%				155,354						
15	Total Works Cost				7,768						
					163,122						

					Potential WIAT Funding					
					As (FCS specification (low spec.))				B	
					Qty	Unit	Rate	£		
	Unit	Quantity	Rate	A £						
EFH Drawing L03.3C - Underpass Works										
1	Vegetation clearance and replant with ground cover	m ²	170	8.00	1,360	n/a				
2	Vegetation clearance and turf	m ²	227	17.00	3,859	n/a				
3	Plant specimen shrubs	Nr	19	60.00	1,140	n/a				
4	Power wash and repoint walls	Nr	1	2100.00	2,100	n/a				
					8,459					
5	Preliminaries - 18%				1,523					
6	Contingencies - 5%				9,982					
					499					
7	Total Works Cost				10,481					
RA Drawing L04C - Lochshot Burn to Livingston Village										
1	Upgrade whindust path	m ²	1311	22	28,842	Upgrade paths	653	lin m	6.2	4,049
2	Vegetation clearance along paths	Lm	680	2	1,360	Manual brashing (path corridor)	283	lin m	1.09	308
						Manual brashing (housing edge)	392	lin m	1.09	427
3	Create access for heavy woodland management machinery	Sum	1	4,000	4,000					
4	New pedestrian link bridge across the River Almond	Nr	1	30,000	30,000	Small scale tree and shrub planting	200		3	600
5	New signage and markers to allow navigation through the housing estate	Sum	1	15,000	15,000					
6	New signage strategy to incorporate existing paths to create new designated routes	Sum	3	1,300	3,900	Secondary signs	3	Nr	188	564
						Waymarker	1	Nr	29	29
7	New map boards	Nr	2	2,400	4,800	A1 Information Panel	2	Nr	992	1,984
8	Create viewing area and interpretation on old stone bridge	Sum	1	30,000	30,000	Timber/plastic boardwalk	0	m ²	91	-
9	Opportunities for art along the upgraded path to add interest along the route	Nr	3	10,000	30,000	Path bridge (steel beam)	20	m	1265	25,300
10	Upgrade path to the link bridge	m ²	160	22	3,520					
11	Possible water course improvements PC03 Mott McDonald costs diversion of pipe and cable (Scottish Water Lead)	Sum	1	5,000	5,000					
12	Possible water course improvements C02 Mott McDonald costs boulder placement & eel matting	Sum	1	5,000	5,000					
13	Possible water course improvements C04 Mott McDonald costs boulder placement to increase flow diversity	Sum	1	5,000	5,000					
					166,422					33,261
14	Preliminaries - 18%				29,956					
15	Contingencies - 5%				196,378					
					9,819					
16	Total Works Cost				206,197					

				A	Potential WIAT Funding				B	
				£	As (FCS specification (low spec.))	Qty	Unit	Rate	£	
	Unit	Quantity	Rate							
Drawing L05C - Almond Pools										
1	Upgrade existing path, improve whin dust surface and add drainage	m ²	897	22	19,734					
						Rebuild path (semi-bound)	475	m ²	28.15	13,371
						Rebuild path (unbound)	2438	m ²	18.2	44,372
						Path Upgrade (unbound)	1173	lin m	6.20	7,273
						Scrape path	318	lin m	0.60	191
						U shaped ditch	84	lin m	1.88	158
						Culverts	4	Nr	143.38	574
2	Short section of new tar path on desire line	m ²	120	63	7,560					
3	New tar path in development site	m ²	575	63	36,225					
4	Resurface car park in type 1 and improve drainage	Sum	1	20,000	20,000	Rebuild path (semi-bound)	300	m ²	28.15	
5	New Path 1 - create new riverside path link on south bank of the Almond, incorporating existing path, include vegetation clearance and creating view points	m ²	2296	24	55,104	Manual brushing (path corridor)	402	lin m	1.09	438
						Drainage	84	lin m	1.88	158
						Clear ride	0.11	ha	1400	154
6	New path 2 - new cycle/walking Ultitrec path link to NCN 75, will give access to proposed new housing development	m ²	997	31	30,907					
7	Possible new pedestrian link bridge at Almond Pools	Sum	1	30,000	30,000	Path bridge (steel beam)	24	m	1265	30,360
8	New signage and entry markers for paths	Nr	10	1,300	13,000	Secondary signs	2	Nr	188	376
						Waymarker	1	Nr	29	29
9	Better signage for cycle route	Sum	1	5,000	5,000					
10	Create steel viewing deck and interpretation at fish pass	Sum	1	30,000	30,000	Timber/plastic boardwalk	0	m ²	91	-
11	New seating, stainless steel and informal logs									
11	Stainless steel seats Blueton 09155	Nr	5	1,100	5,500					
12	Informal log seats	Nr	6	120	720	Timber perch seat	4	Nr	200	800
						Vehicle Barrier	1	Nr	688	688
13	New map board	Nr	5	2,400	12,000	A1 Information Panel	5	Nr	992	4,960
14	Artwork potential for under bridge and at key points along paths	Nr	3	10,000	30,000					103,901
					295,750					
15	Preliminaries - 18%				53,235					
					348,985					
16	Contingencies - 5%				17,449					
17	Total Works Cost				366,434					

					Potential WIAT Funding				B	
					As (FCS specification (low spec.))	Qty	Unit	Rate	£	
		Unit	Quantity	Rate	A					
					£					
EFH Drawing L06B - Tailend Moss										
1	Reinstate 3m wide tar path link to existing cycle track at Shin-Etsu	m ²	168	63	10,584					
2	Upgrade existing path, clear vegetation back on existing tar surface	m ²	735	15	11,025					
3	Possible new link path to give circular route link to above New ultitrec path	m ²	513	31	15,903					
4	New timber bridge	Nr	1	6,000	6,000					
5	Blaes path upgrade	m ²	460	22	10,120					
6	New signage and entry markers	Nr	5	1,300	6,500					
7	New interpretation board	Nr	1	5,000	5,000					
8	New map board	Nr	1	2,400	2,400					
9	Possible watercourse improvements LS01 Mott McDonald costs Deans Rd to Tailend Moss	Sum	1	40,000	40,000					
10	Possible watercourse improvements LS02 Mott McDonald costs three meanders opposite Shin-Etsu	Sum	1	40,000	40,000					
11	Possible water course improvements PC01 Mott McDonald costs raise down stream bed	Sum	1	5,000	5,000					
12	Possible water course improvements C02 Mott McDonald costs raise down stream bed	Sum	1	5,000	5,000					
13	Opportunity for art as entry marker	Nr	1	10,000	10,000					
14	Stainless steel seats Blueton 091ss	Nr	1	1100.00	1,100.00					
					168,632					
15	Preliminaries - 18%				30,354					
16	Contingencies - 5%				198,986					
					9,949					
17	Total Works Cost				208,935					
EFH Drawing L07B - Upper Nell Burn										
1	Upgrade existing blaes path to 3m tar on key route to school and improve drainage	m ²	840	63	52,920	New path (semi-bound)	580	m ²	18.2	10,556
2	New extension to the Railway Path South across development sites	m ²	2085	63	131,355					
3	Vegetation clearance	Lm	1212	2	2,424	Manual brashing	1133	lin m	1.09	1,235
4	Possible watercourse improvements HS02 Mott McDonald costs sediment & reed management and replacement of stone weir	Sum	1	40,000	40,000					
5	Upgrade watercourse from Eliburn Reservoir to footpath bridge adjacent play area	Sum	1	30,000	30,000					
6	New signage/entry marker	Nr	1	1,300	1,300	Waymarker	1	Nr	29	29
7	New map board	Nr	1	2,400	2,400	A1 Information Panel	1	Nr	992	992
8	Opportunity for art at underpass	Nr	2	1,000	2,000					12,812
					262,399					
9	Preliminaries - 18%				47,232					
10	Contingencies - 5%				309,631					
					15,482					
11	Total Works Cost				325,112					

				A	Potential WIAT Funding				B	
				£	As (FCS specification (low spec.))	Qty	Unit	Rate	£	
	Unit	Quantity	Rate							
Drawing L08B - Nell Burn to Follyburn Links including Eliburn Park & Woodland										
1	Repair existing whindust paths WLC - 15%	m ²	805	22	17,710	Rebuild path (unbound)	2703	m ²	18.2	49,195
2	Repiar existing whin dust paths WTS - 15%	m ²	727	22	15,994	New path (semi-bound)	1112	m ²	28.15	31,303
						U shaped ditch	1019	lin m	1.88	1,916
						Culverts	7	Nr	143.38	1,004
						Timber and aggregate steps	22	lin m.	150	3,300
3	Possible watercourse improvements HS02 Mott McDonald costs sediment & reed management and replacement of stone weir	Sum	1	40,000	40,000					
4	New Ulritrec path link from WTS path to Follyburn Path		262	31	8,122	New path (semi-bound)	600	m ²	18.2	10,920
5	New signage and entry markers incorporating new circular path routes and including improved signage and markers to help navigation through housing estate	Nr	18	1,300	23,400	Waymarker	9	Nr	29	261
6	Create a woodland management access for heavy vehicles and route to extract timber, include realignment of fence and creation of causeway across flush	Sum	1	9,000	9,000	New path (semi-bound)	1296	m ²	28.15	36,482
7	Vegetation clearanace along path routes	Lm	792	2	1,584	Manual brashing	1951	lin m	1.09	2,127
8	Create swale and or reedbed to filter drainage runoff from grass pitches	Sum	1	15,000	15,000	U shaped ditch		lin m	1.88	-
9	Relocate picnic tables	Sum	1	3,000	3,000					
10	New map boards showing new circular path routes	Nr	1	2,400	2,400	A1 Information Panel	2	Nr	992	1,984
11	Opportunity for art at key path entry points	Nr	1	10,000	10,000					138,491
	Woodland planted screen around SuDs pond	m ²	1964	5	9,820					
					156,030					
12	Preliminaries - 18%				28,085					
13	Contingencies - 5%				184,115					
14	Total Works Cost				9,206					
					193,321					
Drawing L09B - Peel Park										
1	Refresh park by repainting benches and topping up paths	Sum	1		12,000	Scrape path	0	lin m	0.60	-
2	Replace dead, poorly growing and missing avenue trees with fruit trees to create a linear orchard	Nr	12		3,360	Individual standard trees	0	Nr	100	-
3	Provide boundary screen planting to hide untidy boundaries to surrounding gardens	m	68		12,240					
4	Provide signage /entry features	lm	9		11,700	Waymarker	5	Nr	29	145
5	Vegetation clearance along paths	Sum	1		4,000	Manual brashing	1050	lin m	1.09	1,145
6	New map board	Nr	1		2,400	A1 Information Panel	2	Nr	992	1,984
7	Create wildflower meadows to add interest and reduce mowing, create maze like paths through part of meadow to add interest to park	m ²	6283		37,698					3,274
8	Opportunity for art at key path entry points	Nr	1		10,000					
					93,398					
9	Preliminaries - 18%				16,812					
10	Contingencies - 5%				110,210					
11	Total Works Cost				5,510					
					115,720					

Included in WIAT

NORTH LIVINGSTON BLUE GREEN NETWORK MASTERPLAN

APPENDICES

APPENDIX 1 – North Livingston Blue Green Network Study Area

APPENDIX 2 – Draft Master Plan L01 and Photographs

APPENDIX 3 – Woodland Proposals for WIAT (extract)

APPENDIX 4 – Watercourse Survey and Recommendations

APPENDIX 5 – Drainage Strategy Plan

APPENDIX 6 – Signage Strategy Plan

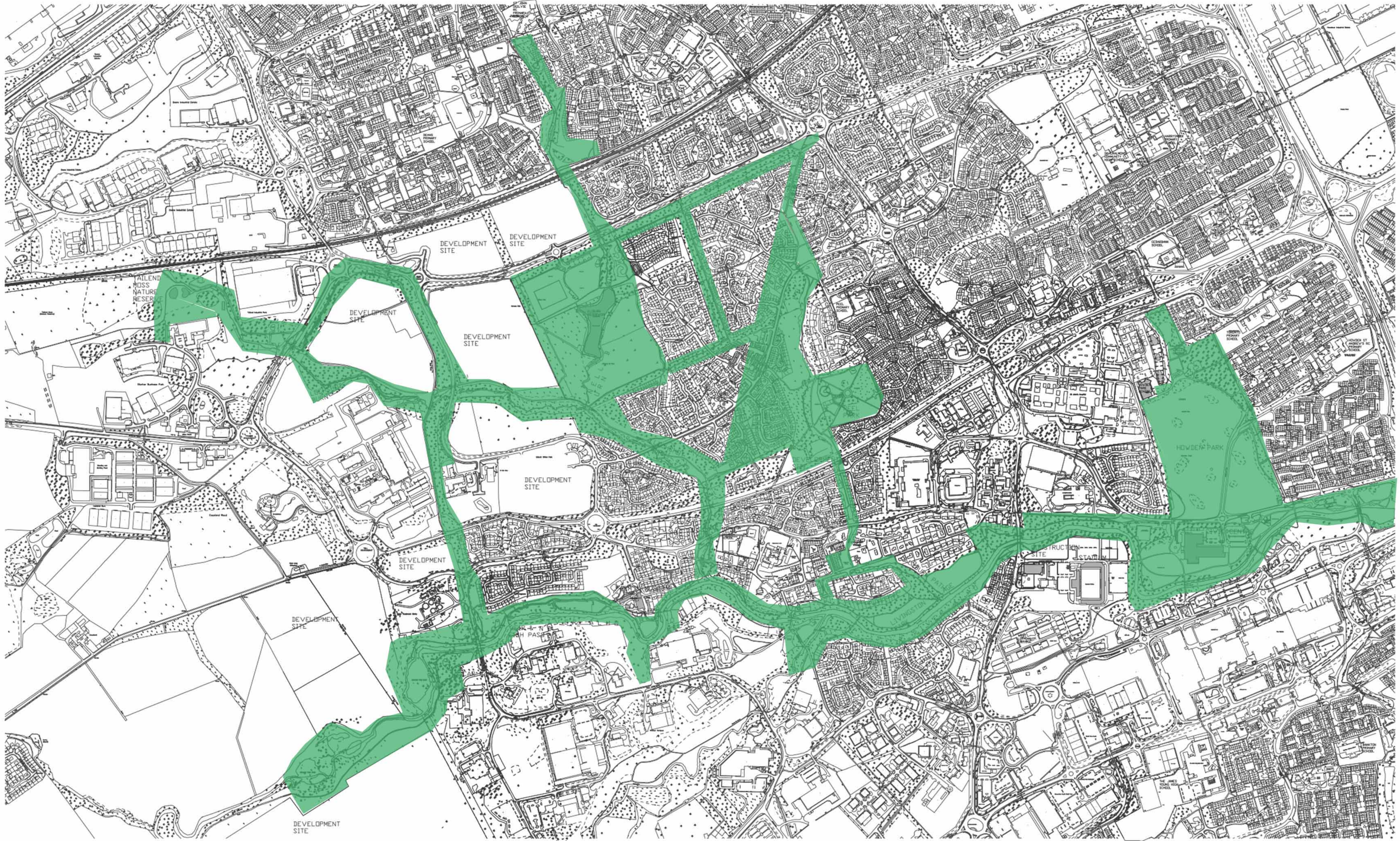
APPENDIX 7 – Artwork Strategy Plan

APPENDIX 8 – Detailed Plans L02-L09

APPENDIX 9 – Site Specific Comments Plan

APPENDIX 10 – Routes Strategy Plan

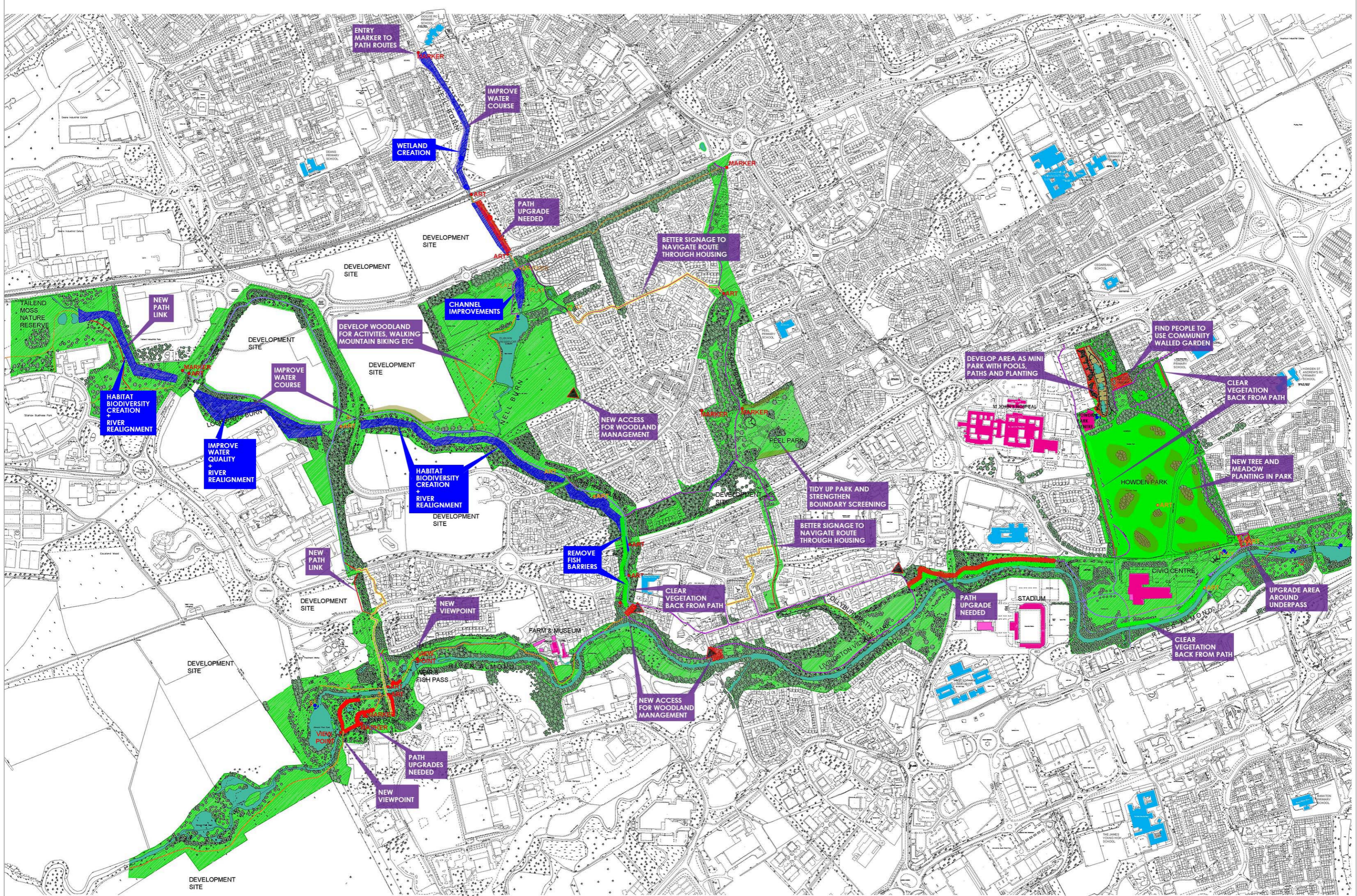
APPENDIX 11 – Consultation Report



LIVINGSTON NORTH BLUE GREEN NETWORK



STUDY AREA

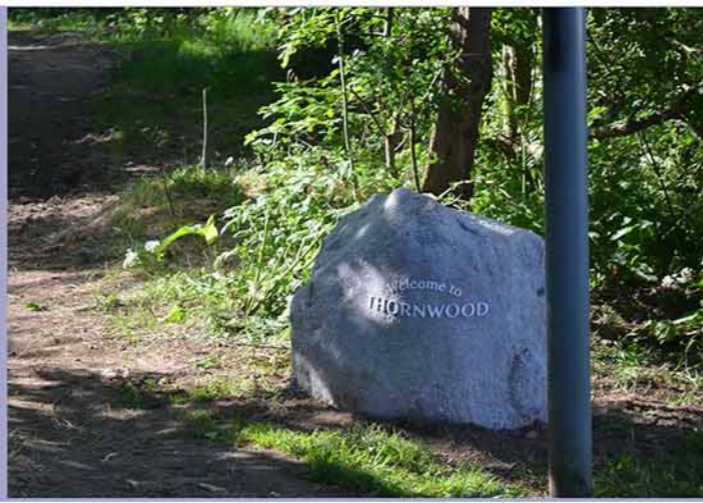


NEW MARKERS TO ADD TO EXISTING TO HIGHLIGHT ENTRANCES TO ROUTES AND HELP WITH NAVIGATION

EXISTING



NEW



COULD THE AREA BEHIND THE HOWDEN PARK CENTRE BECOME A MINI NATURE PARK WITH PATHS, WETLAND AND PLANTING



EXISTING



EXISTING



ALREADY IMPROVED



SOME OF THE PATH NETWORK IS STILL TO BE IMPROVED AND SOME PATHS HAVE VEGETATION ALONG THE EDGES SHOULD THIS BE CLEARED BACK AS THE EXAMPLE HERE?

SHOULD THERE BE BETTER SIGNAGE



SHOULD THERE BE MORE SEATS AND PICNIC TABLES



ARE THE LESS OVERPASSES GROWN UNDERPASSES PREFERRED



SHOULD UNDERPASSES BE IMPROVED



WOULD PATHS BE BETTER USED WITH MORE MAPS, BETTER SIGNAGE AND POINTS OF INTEREST ALONG THE WAY

NORTH LIVINGSTON BLUE GREEN NETWORK MASTERPLAN



RECENTLY INSTALLED NEW MAP



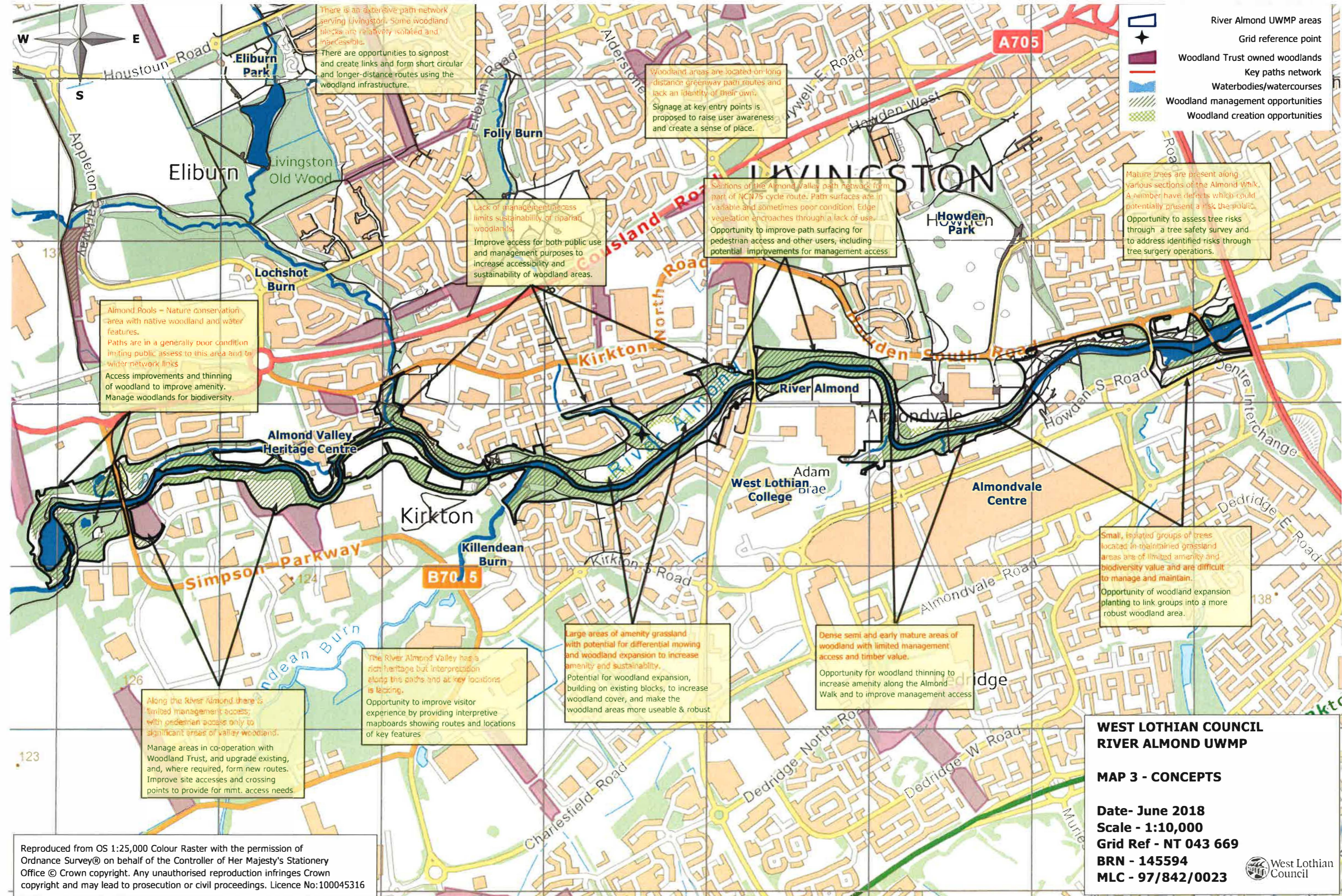
ROUTES DIFFICULT TO FOLLOW THROUGH HOUSING



POTENTIAL FOR MORE VIEW POINTS ALONG RIVERS



APPENDIX 3 – Woodland Proposal Information for Woodlands In and Around Towns (WIAT) Bid (concept plans only)

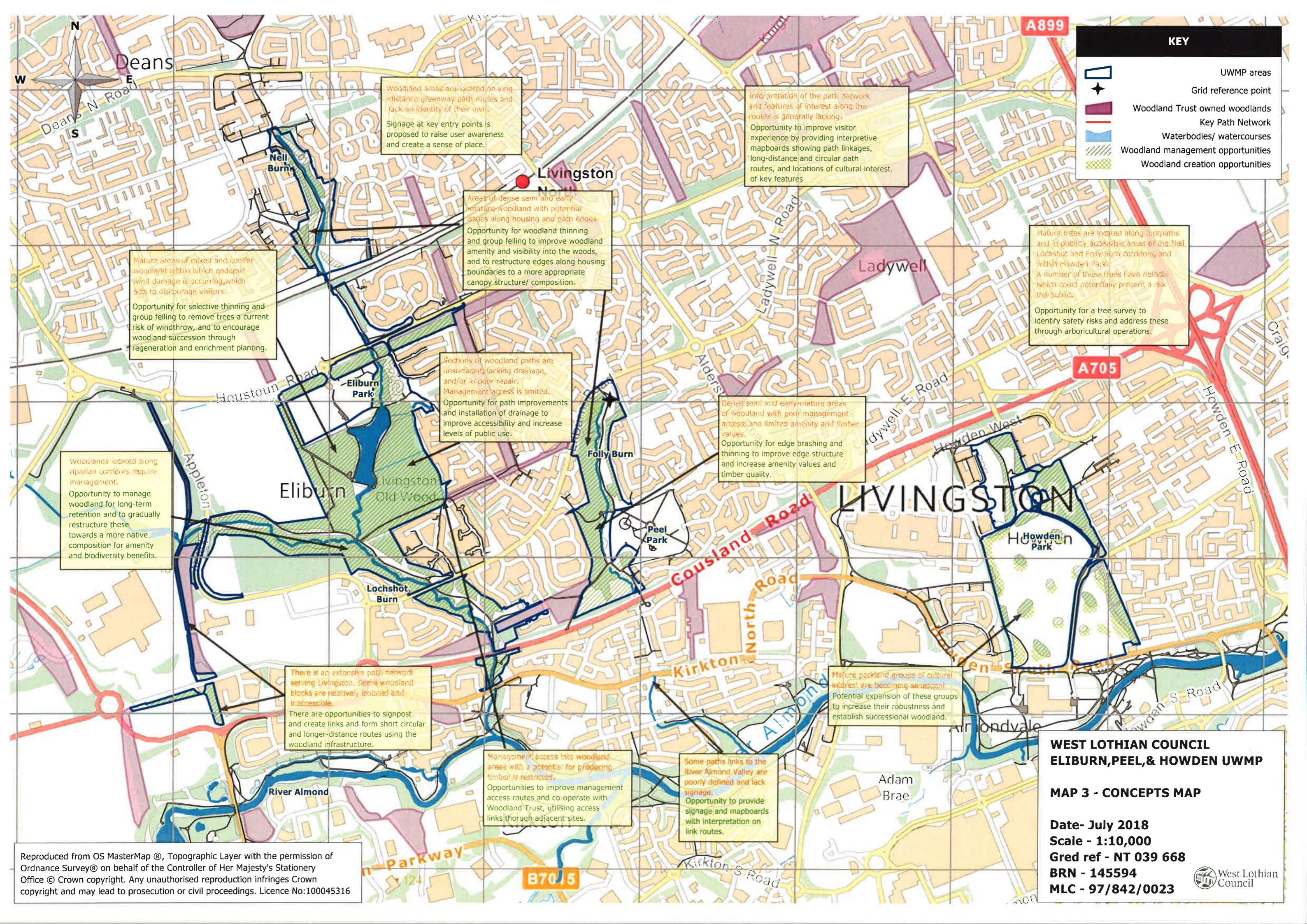


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**WEST LOTHIAN COUNCIL
RIVER ALMOND UWMP**

MAP 3 - CONCEPTS

Date- June 2018
Scale - 1:10,000
Grid Ref - NT 043 669
BRN - 145594
MLC - 97/842/0023



KEY	
	UWMP areas
	Grid reference point
	Woodland Trust owned woodlands
	Key Path Network
	Waterbodies/ watercourses
	Woodland management opportunities
	Woodland creation opportunities

Woodland areas are located on long distance greenway path routes and lack an identity of their own.
Signage at key entry points is proposed to raise user awareness and create a sense of place.

Interpretation of the path network and features of interest along the routes is generally lacking.
Opportunity to improve visitor experience by providing interpretive mapboards showing path linkages, long-distance and circular path routes, and locations of cultural interest of key features

Areas of dense semi and early mature woodland with potential issues along housing and path edges
Opportunity for woodland thinning and group felling to improve woodland amenity and visibility into the woods, and to restructure edges along housing boundaries to a more appropriate canopy structure/ composition.

Mature trees are located along footpaths and in publicly accessible areas of the Nell Lochshot and Folly Burn corridors, and within Howden Park.
A number of these trees have defects which could potentially present a risk to the public.
Opportunity for a tree survey to identify safety risks and address these through arboricultural operations.

Mature areas of mixed and conifer woodland within which endemic wind damage is occurring, which acts to discourage visitors.
Opportunity for selective thinning and group felling to remove trees a current risk of windthrow, and to encourage woodland succession through regeneration and enrichment planting.

Sections of woodland paths are unsurfaced, lacking drainage, and/or in poor repair.
Management access is limited.
Opportunity for path improvements and installation of drainage to improve accessibility and increase levels of public use.

Dense semi and early-mature areas of woodland with poor management access, and limited amenity and timber values.
Opportunity for edge brushing and thinning to improve edge structure and increase amenity values and timber quality.

Woodlands located along riparian corridors require management.
Opportunity to manage woodland for long-term retention and to gradually restructure these towards a more native composition for amenity and biodiversity benefits.

There is an extensive path network serving Livingston. Some woodland blocks are relatively isolated and inaccessible.
There are opportunities to signpost and create links and form short circular and longer-distance routes using the woodland infrastructure.

Management access into woodland areas with a potential for producing timber is restricted.
Opportunities to improve management access routes and co-operate with Woodland Trust, utilising access links through adjacent sites.

Some paths links to the River Almond Valley are poorly defined and lack signage.
Opportunity to provide signage and mapboards with interpretation on link routes.

Mature parkland groups of cultural interest are becoming senescent
Potential expansion of these groups to increase their robustness and establish successional woodland.

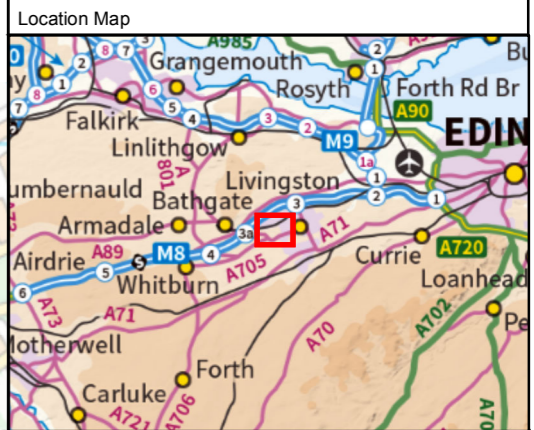
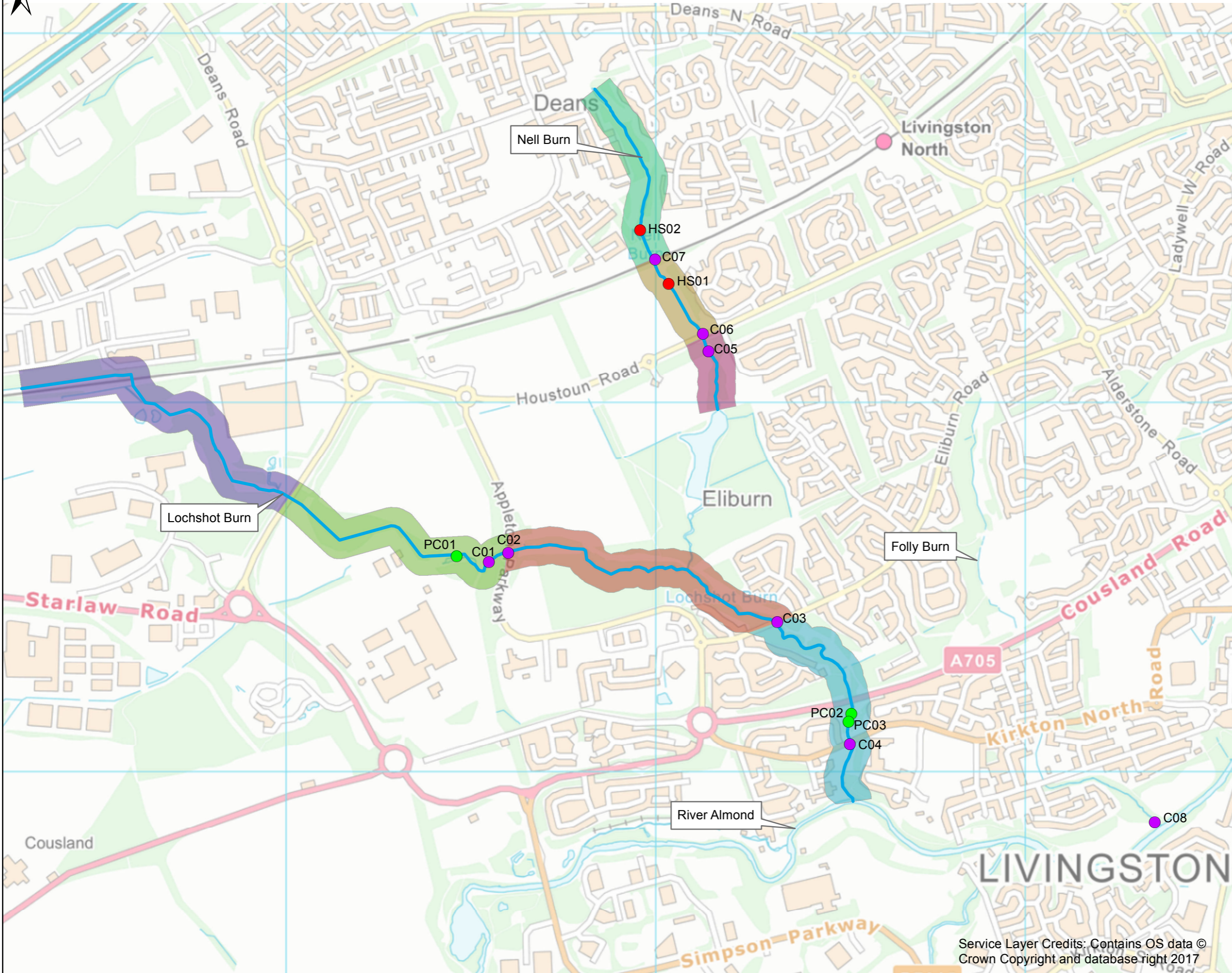
**WEST LOTHIAN COUNCIL
ELIBURN, PEEL, & HOWDEN UWMP**

MAP 3 - CONCEPTS MAP

Date- July 2018
Scale - 1:10,000
Grid ref - NT 039 668
BRN - 145594
MLC - 97/842/0023

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APPENDIX 4 – Watercourse Survey and Recommendations



Key

- Pipe Crossing (PC #)
- Hydraulic Structure (HS #)
- Crossing (C #)

Watercourse sections

- LS01 (Purple)
- LS02 (Green)
- LS03 (Brown)
- LS04 (Blue)
- N01 (Pink)
- N02 (Olive)
- N03 (Light Green)

C	21/11/17	JL	Final		NM	NN
B	24/10/17	JL	Updated to include hydraulic structure locations		NM	NN
A	21/10/17	JL	Draft for info		NM	NN
Rev	Date	Drawn	Description	Ch'k'd	App'd	

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Client
West Lothian Council

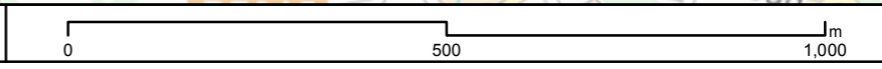
Title
North Livingston River Enhancement Study Constraints and Opportunities

Designed	JL	Eng Check	NN
Drawn	JL	Coordination	NM
GIS Check	NM	Approved	NN

Scale at A3	Status	Rev	Security
1:10,000	Final	C	STD

Drawing Number **FIGURE 1**

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Key observations and constraints are described below. Please refer to Figure 1 for location of identified reaches / features. Photos are identified in Table 2 below.

Table 1: Key observations

Watercourse	Identifier	Description	Constraints	Opportunities
Lochshot Burn	LS01	<ul style="list-style-type: none"> Reach downstream of Tailend Moss and upstream of Deans Road. Visual observations suggest relatively biodiverse habitat in lower reaches (see Photo 01) This reach appears to have been historically realigned given straight channel sections (in particular, the 150m reach directly upstream of Deans Road). 	<ul style="list-style-type: none"> There is limited infrastructure development along the banks through this area and there is space for channel realignment. There is no existing track access along the watercourse and access to channel is difficult in reach directly upstream of Deans Road. 	<ul style="list-style-type: none"> Channel realignment to create more natural planform through increased sinuosity directly upstream of Dean Road. This could include elements of two-stage channel if desired to increase channel capacity/online storage.
Lochshot Burn	LS02	<ul style="list-style-type: none"> 600m reach from Deans Road to Appleton Parkway. Generally sluggish flow rates and visibly poor water quality conditions. The reach currently appears to present little visual amenity and poor aquatic habitat. Culvert C01 (see plan drawing) is an arch culvert bridge on what appears to be a redundant rail line directly upstream of a severe bend in the channel. The invert of the bridge appears to be comprised of natural riverbed material (Photo 02). Realigned and straightened channel next to roads and industrial developments (Photo 03). Bank protection / pipe crossing (PC01 on plan drawing) is located some 50m downstream of outfall structure (Photo 04). Presence of outfall structure downstream from industrial park. Outfall appears well aligned with watercourse alignment and its invert is well protected (Photo 05). Culvert C02 (see plan drawing) under Appleton Parkway appears to be comprised of a concrete barrel and invert extending upstream and downstream of the crossing. There is also a large outfall structure that discharges into the watercourse directly downstream of the culvert outlet (Photo 06). 	<ul style="list-style-type: none"> Shallow floodplain banks and little development pressures directly adjacent to the watercourse. Good access directly adjacent to public tarmac pedestrian / cycle track. This track has been informally bunded to prevent pedestrian access, but continues to be used by the public. 	<ul style="list-style-type: none"> Channel realignment to increase sinuosity and create more natural planform. Creation of habitat biodiversity along the banks by reprofiling. Investigate opportunities for diversion of pipe crossing (PC01) to a level below the river bed. Investigation of outfall structure directly downstream of Appleton Parkway Culvert to address potential sewer discharge at this location to improve water quality.
Lochshot Burn	LS03	<ul style="list-style-type: none"> 800m reach from Appleton Parkway and Eliburn Road. Although reach shows evidence of historical straightening, natural channel adjustment and development of natural features (including meanders and pools/riffles) has created varied habitat. The channel runs through Livingston Old Wood, which includes forest plantation adjacent to parkland. Woody debris was noted within the channel at various locations (See Photo 07). The channel in the upstream section is shallower and connected to the floodplain with low banks whereas the downstream section is more incised. An area adjacent to a picnic area shows evidence of bank erosion attributed the public accessing the channel (Photo 08). Culvert C03 is a wide spanning structure over the Lochshot Burn and a public footpath. The channel has been straightened and reinforced with large stone at the crossing. 	<ul style="list-style-type: none"> Generally shallow banks on left bank (when viewed in a downstream direction) but steeper topography on right bank. Other than the Appleton Parkway crossing, there is little direct development pressure directly adjacent to the watercourse. Good access directly adjacent to public tarmac pedestrian / cycle track. Limited opportunity to improve watercourse at Crossing C03 as channel is constrained by footpath and bridge abutments. 	<ul style="list-style-type: none"> Channel realignment to create more natural planform on left bank. Creation of habitat biodiversity through riparian zones through parkland and forest plantation area. Creation of further natural pool-riffle features / natural check dams through application of woody debris. Revegetate damaged bank with native riparian plants and limit mowing a few meters from the bank face.









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Watercourse	Identifier	Description	Constraints	Opportunities
Lochshot Burn	LS04	<ul style="list-style-type: none"> 260m reach downstream of Eliburn Road to the confluence with the River Almond. Engineered channel sections including extensive realignment and bank/bed reinforcement measures at crossings. Greater development pressure along the banks due to proximity to pedestrian /cycle path and residential development. Flood extent is widest (approx 80m) at Kirkton North Road Bridge crossing with limited storage areas along the downstream reach of the watercourse. Crossing C04 at Cousland Road (Photo 09) and Kirkton Road North are wide spanning structures with a heavily engineered channel reaches. Bed and bank protection was observed along some 100m reach at Cousland Road Crossing (see Photo 10). The channel also receives flow from includes a screened outlet structure directly upstream of the Kirkton Road North. Drainage / sewer overflow outfall features and pipe crossings (PC01 and PC02 on plan drawing) create potential fish pass barriers. (see Photos 11 and 12) Crossing at Kirkton Lane is a stone arch bridge along what appears to be a redundant railway line. The bridge spans the natural riverbed. 	<ul style="list-style-type: none"> Limited opportunity for change in planform given number of crossings and proximity to roadway and residential development. Good access to full reach via pedestrian / cycle path. 	<ul style="list-style-type: none"> Opportunity to replace hard bed protection with more natural river substrate at spanning structures to enhance river habitat. Review opportunities to provide natural flood detention zones along reach by creating patches of low lying green space adjacent to watercourse. Review opportunities to remove hard protection along bed and banks when there is no obvious need for protection of nearby assets. Replace with softer scour protection materials where appropriate. Investigate opportunities for diversion of pipe crossings and cable crossings (PC02 & PC03 to a level below the river bed. Investigation of outfall structure directly upstream of Kirkton Road North crossing to remove potential sewer discharge at this location.
Nell Burn	N01	<ul style="list-style-type: none"> The reach directly upstream of the Eliburn Reservoir to Houston Road appears to have been historically straightened. The partially breached dam at Eliburn Reservoir prevents fish passage, and this reach is unlikely to be habitat for migrating fish. The recently constructed inlet structure at the forebay of Eliburn Reservoir is losing masonry and is at risk of further deterioration (see Photo 13). The forebay is infilling with sediment from the river upstream (mixture of sands and gravels). Some rubbish was also noted within the sediment material. Further infilling of the forebay could cause risk of short-circuiting of flow through the forebay and deposition of material in the reservoir downstream. Culvert C05 at track crossing (car park) is comprised of a concrete barrel with extended concrete apron downstream. The apron causes shallow laminar flow, which may affect fish passage (see Photo 14). Crossing C06 over Houston Road is a high level wide spanning structure. The channel under the crossing is comprised of heavily engineered bed and banks extending some distance from the bridge abutments (see Photos 15 and 16). 	<ul style="list-style-type: none"> Some green space adjacent to river banks. Good access along reach via pedestrian / cycle path. 	<ul style="list-style-type: none"> Channel realignment to create a more natural planform along left bank. Creation of habitat biodiversity within riparian zones through parkland. Consideration of enabling or improving fish passage through the Eliburn Reservoir breached dam structure. Improvement to the Eliburn Reservoir intake spill structure to prevent further deterioration for aesthetic reasons. Review need to dredge forebay to reduce sedimentation rates within the Eliburn Reservoir. Modification of small track culvert (C05) outlet apron with more natural substrate and restore more natural gradient. Review opportunities to remove or reduce extent of hard protection along bed and banks at Crossing C06 when there is no obvious need for protection of nearby assets. Replace with softer scour protection materials where appropriate if channel erosion is to be mitigated.
Nell Burn	N02	<ul style="list-style-type: none"> Channel between Houston Road crossing and railway crossing has been historically straightened and lined (Photos 17 and 18). Crossing C07 at the railway overpass consists of a highly engineered masonry-lined channel adjacent to the bridge abutments (Photo 19) and includes a culverted section at outfall (Photo 20). 	<ul style="list-style-type: none"> Channel is located adjacent to public footpath through a green corridor and forested area. The channel running under the railway crossing is heavily constrained between the roadway and the left bridge abutment. 	<ul style="list-style-type: none"> Channel realignment to create more natural planform on left bank through parkland downstream of railway bridge crossing. Creation of habitat biodiversity in riparian zones adjacent to watercourse.
Nell Burn	N03	<ul style="list-style-type: none"> Channel upstream of the railway crossing appears less engineered albeit constrained on right bank by footpath directly adjacent to the watercourse. A flow splitting structure is located upstream of the rail bridge crossing. This structure appears to receive flow from CSO (combined sewer overflow) chambers. Screens at the outlet location were blinded with rags and debris (Photo 21). A pond locally known as "Nell Burn Pond" has become infilled with sediment and reed material due to flow constriction and presence of a 2m high stone weir (Photo 22). 	<ul style="list-style-type: none"> Upstream reach runs within a green corridor through residential development. A footpath runs directly adjacent to channel along the full length of the reach. 	<ul style="list-style-type: none"> Investigation of CSO outfalls and maintenance requirements to reduce spill frequency into watercourse. Review CSO screen design to allow opportunity for rag removal upstream of the outfall. There is a desire to provide more amenity at this location by reintroducing riparian habitat by way of a wetland or pond feature. Consider creating off-line pond (allowing recharge from a flow diversion structure) to reduce sedimentation or create a wetland area by introducing a defined channel and riparian vegetation within the in-filled pond area that would be recharged by flood water during high flow events.
Folly Burn	N/A	<ul style="list-style-type: none"> The most downstream reach of Folly Burn receives flow from a substantially culverted reach upstream and runs through parkland and under a crossing (C08) at its confluence with the River Almond. The channel in the parkland area appears to be in a natural state with little constraint to natural morphological processes. The crossing near the confluence with the River Almond includes two culverts encased in concrete located above the river bed which spill onto a concrete mattress. The mattress units were observed to be in poor condition and separating from one another (Photo 23). 	<ul style="list-style-type: none"> The crossing C08 is located on a tarmac footpath / cycle track. 	<ul style="list-style-type: none"> Opportunities to improve fish passage through C08 by way of replacement / retrofitting the culvert with a spanning structure. Remove the concrete mattress protection at downstream toe and replace with more natural river substrate.

Table 2 - Photographs

Burn	Identifier	Photographs
Lochshot Burn	LS01	 <p data-bbox="602 674 706 705">Photo 01</p>
Lochshot Burn	LS02	     <p data-bbox="602 1203 706 1234">Photo 02</p> <p data-bbox="1130 1203 1234 1234">Photo 03</p> <p data-bbox="1421 1203 1525 1234">Photo 04</p> <p data-bbox="1712 1203 1816 1234">Photo 05</p> <p data-bbox="2003 1203 2107 1234">Photo 06</p>
Lochshot Burn	LS03	  <p data-bbox="602 1692 706 1724">Photo 07</p> <p data-bbox="845 1692 949 1724">Photo 08</p>

<p>Lochshot Burn</p>	<p>LS04</p>					<p>Photo 09</p>	<p>Photo 10</p>	<p>Photo 11</p>	<p>Photo 12</p>
<p>Nell Burn</p>	<p>N01</p>					<p>Photo 13</p>	<p>Photo 14</p>	<p>Photo 15</p>	<p>Photo 16</p>
<p>Nell Burn</p>	<p>N02</p>					<p>Photo 17</p>	<p>Photo 18</p>	<p>Photo 19</p>	<p>Photo 20</p>

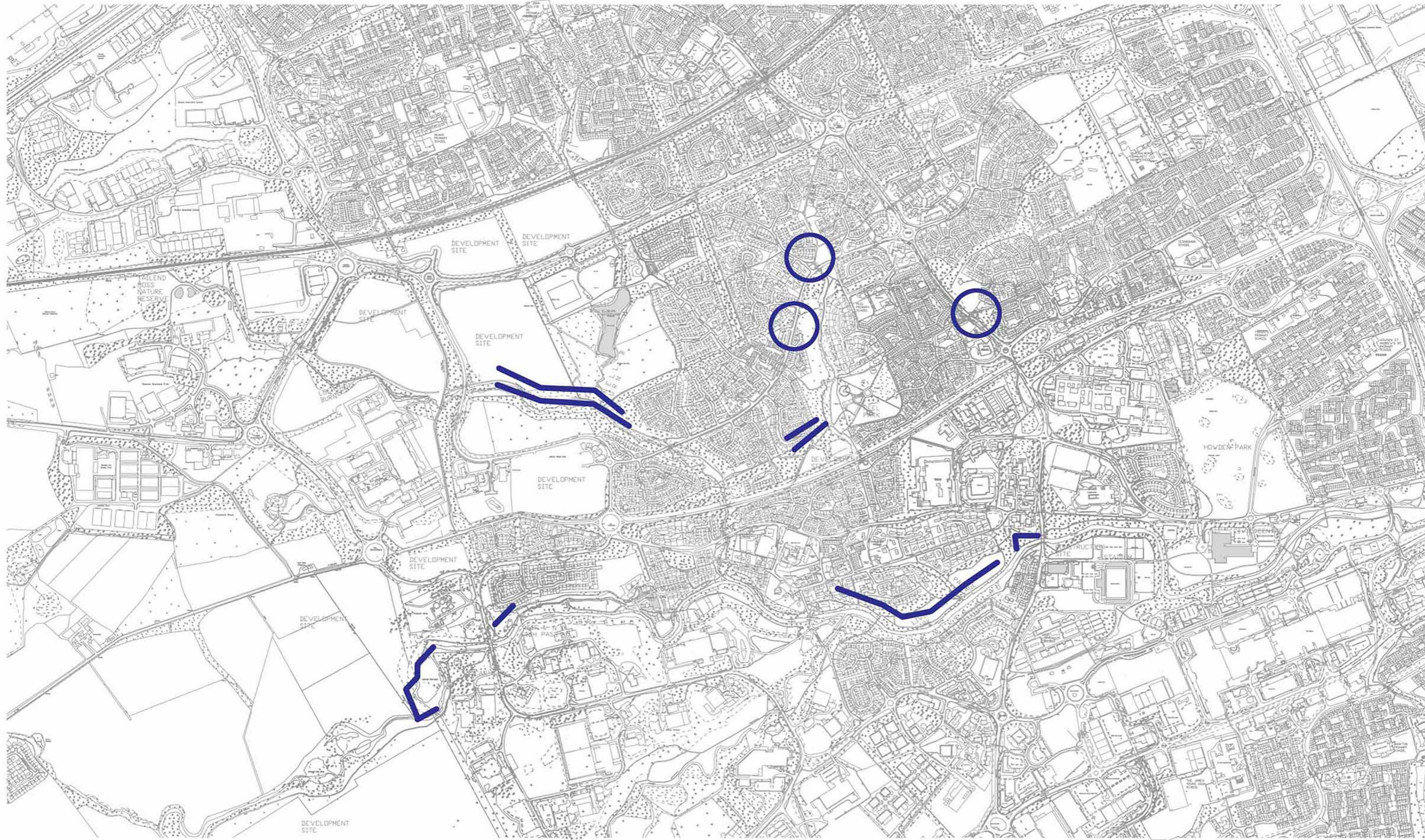
Nell Burn	N03	 <p>Photo 21</p>	 <p>Photo 22</p>
Folly Burn	n/a	 <p>Photo 23</p>	



Blue Opportunities Table

Opportunities: C01, C05, C06, C07 and HS01 have not been costed due them being of low priority and with no foreseeable funding source.

Opportunity_Type	Opportunity_Description	Improvement_Works	Opportunity_Ref	watercourse	Lead	Landowner	Co-ordinates Eastings	Co-ordinates Northings	Outline Construction Costings £ (Mott 2018 02 20)	Service type
Fish Barrier Removal	Diversion of Pipe crossing	Re-lay 50m of service / Raising downstream bed	PC01	Lochshot Burn	Scottish Water	Shin-Etsu	302473	667590	5,000	Scottish Water - Combined sewer. To be confirmed.
Sewer Discharge	Investigation of outfall structure d/s	Investigation of large outfall structure d/s of concrete barrel culvert to address potential sewer discharge at this location. Boulder placement near culvert outlet, eel matting.	C02	Lochshot Burn	WLC FRM / RFFT & possibly Scottish Water	Scottish Water / Shin-Etsu	302643	667619	5,000	Potential connection to Scottish Waters Combined Sewer Overflow. To be confirmed.
Fish Barrier Removal	Diversion of pipe and cable crossings	Re-lay 50m of service / Raising downstream bed	PC02	Lochshot Burn	Scottish Water	WLC - NETS Land and Countryside Services	303533	667173	5,000	Scottish Water - Foul pipe crossing. To be confirmed.
Fish Barrier Removal	Diversion of pipe and cable crossings	Re-lay 50m of service / Raising downstream bed	PC03	Lochshot Burn	Scottish Water	WLC - NETS Land and Countryside Services	303520	667105	5,000	Scottish Water - Surface Water pipe crossing. To be confirmed.
Fish barrier removal	Limited due to Eliburn Road Bridge structure and footpath crossing	Local boulder placements to increase flow diversity.	C03	Lochshot Burn	WLC FRM / RFFT	WLC - NETS Land and Countryside Services	303327	667403	5,000	n/a
Fish barrier removal	Replace hard bed protection underneath Kirkton North Road Bridge, with more natural substrate	Local boulder placements to increase flow diversity (dowelling may be required)	C04	Lochshot Burn	WLC FRM / RFFT	WLC - NETS Land and Countryside Services	303530	667085	5,000	n/a
Fish barrier removal	Replace hard bed protection underneath Cousland Road Bridges, with more natural substrate	Local boulder placements to increase flow diversity (dowelling may be required)	C04	Lochshot Burn	WLC FRM / RFFT	WLC - NETS Land and Countryside Services	303327	667403	5,000	n/a
Habitat improvement	Creation of habitat biodiversity in riparian zone & improved river substrate.	Various locations along the Lochshot Burn would benefit from the creation of habitat biodiversity in riparian zones. Revegetate damaged banks with native riparian plants (willow spilling). Creation of small pool-riffle features/natural check dams using woody debris/gravel/boulders. Assumed £100/m x 150m	n/a	Lochshot Burn	FRM / RFFT	Lidl / Shin-Etsu / WLC - NETS Land and Countryside Services			15,000	To be confirmed
River Realignment	channel realignment to create more natural planform between Tailend Moss and Deans Road	150m section of Burn u/s of Deans Road	LS01	Lochshot Burn	WLC FRM / RFFT	Lidl + Tailend Industrial Estate	301852	667789	40,000	To be confirmed
River Realignment	channel realignment to create more natural planform between Deans Road and Appleton Parkway	Addition of 3 meanders (each 50m channel length) 150m section of Burn	LS02	Lochshot Burn	WLC FRM / RFFT	Shin-Etsu	302149	667637	40,000	To be confirmed
River Realignment	channel realignment to create more natural planform between Appleton Parkway and Eliburn Road	Addition of 3 meanders (each 50m channel length) 150m section of Burn (302145, 667628), (302295, 667664), (302806,667608)	LS03	Lochshot Burn	WLC FRM / RFFT	WLC - NETS Land and Countryside Services	302145	667628	40,000	To be confirmed
Wetland Creation	wetland area or offline pond creation	sediment and reed management and stone weir replacement	HS02	Nell Burn	SEPA / RFFT	WLC - NETS Land and Countryside Services	302965	668511	40,000	To be confirmed
Wetland Creation	wetland area or offline pond creation	sediment and reed management and stone weir replacement	u/s of Nell Burn	Nell Burn	SEPA / RFFT	WLC - NETS Land and Countryside Services	302865	668811	40,000	To be confirmed. NB: Approx. 100 m downstream from Pond outlet a 300mm Scottish Water Trunk Main, a Surface water pipe and a foul pipe cross the Burn.

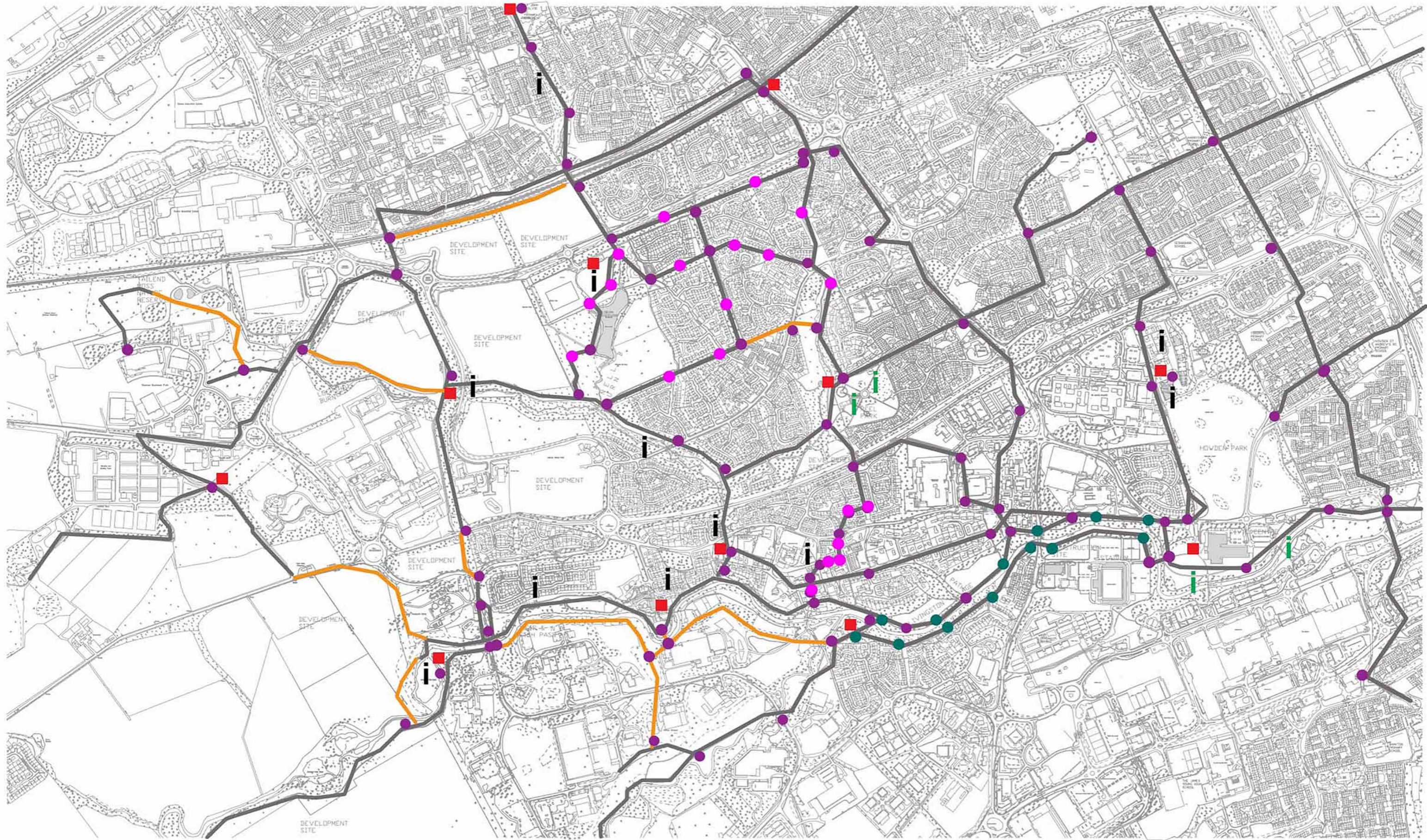
APPENDIX 5 – Drainage Strategy Plan



-  AREAS OF POOR PATH DRAINAGE RESTRICTING USE
-  PONDING AT UNDERPASSES

PATH DRAINAGE ISSUES STRATEGY MAP

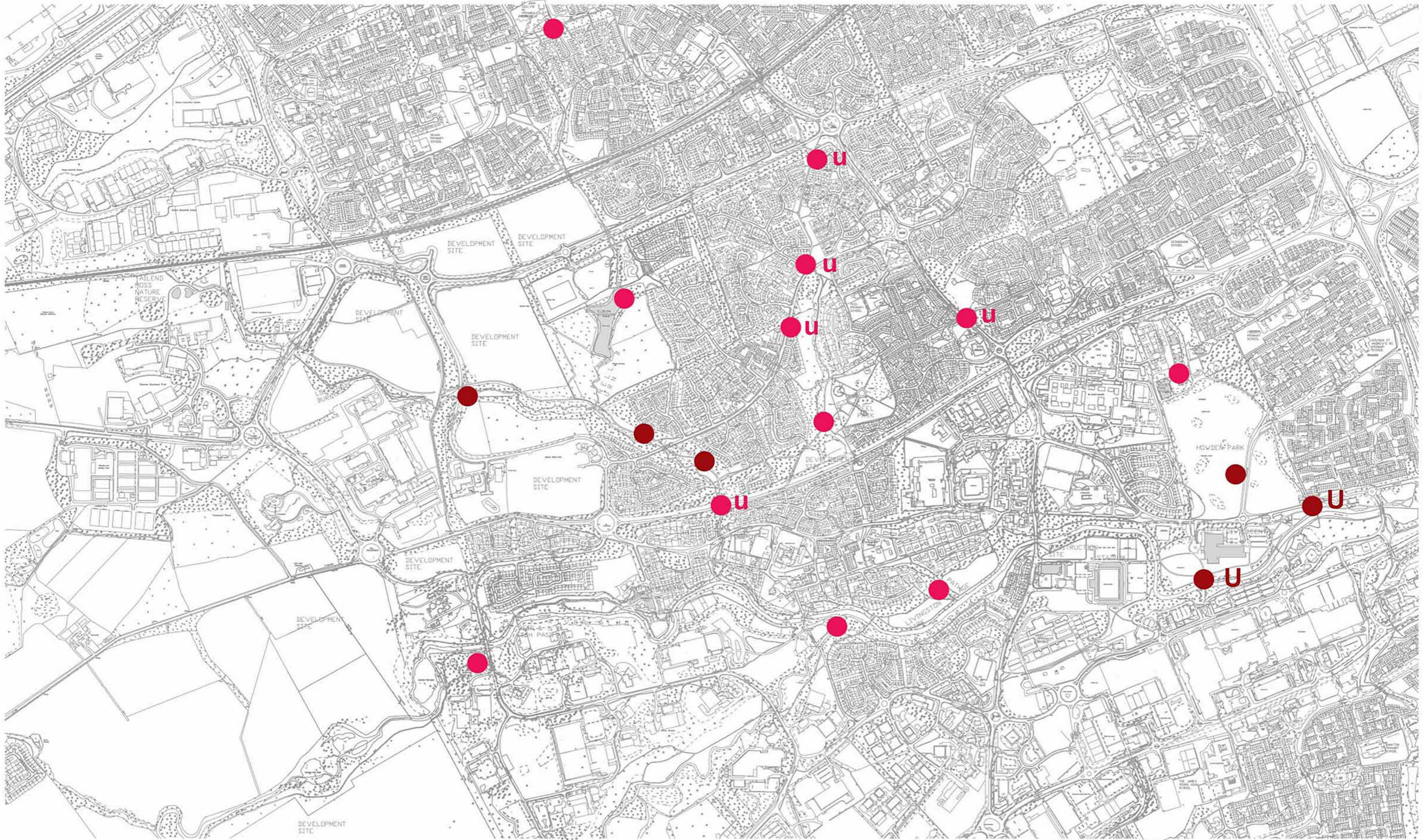
APPENDIX 6 – Signage Strategy Plan



- i** NEW INTERPRETATION
- i** EXISTING INTERPRETATION
- NEW DIRECTION SIGN
- NEW MAP BOARD
- EXISTING WAY MARKERS
- NEW WAY MARKERS

SIGNAGE STRATEGY MAP

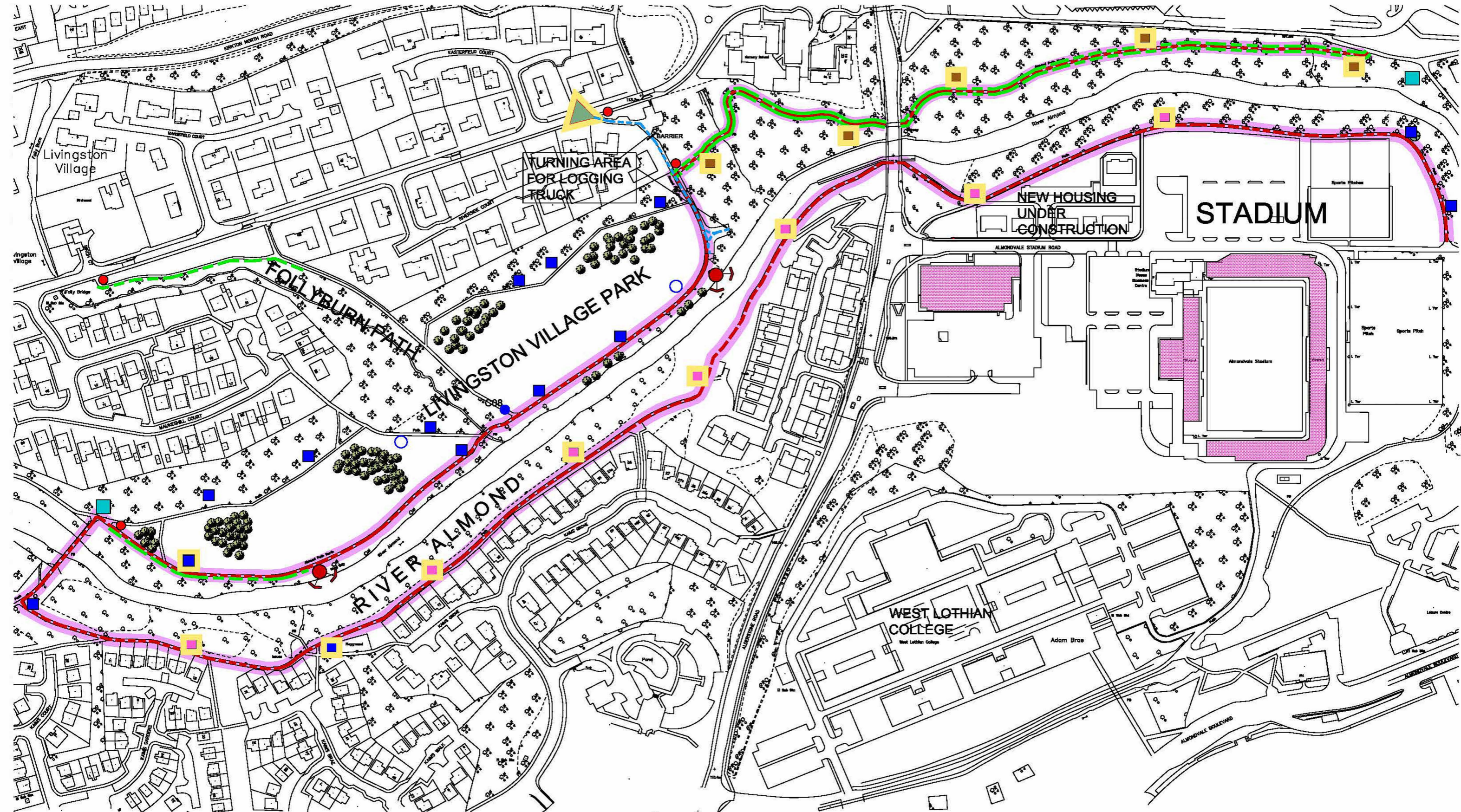
APPENDIX 7 – Artwork Strategy Plan





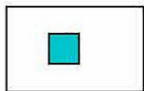




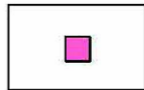







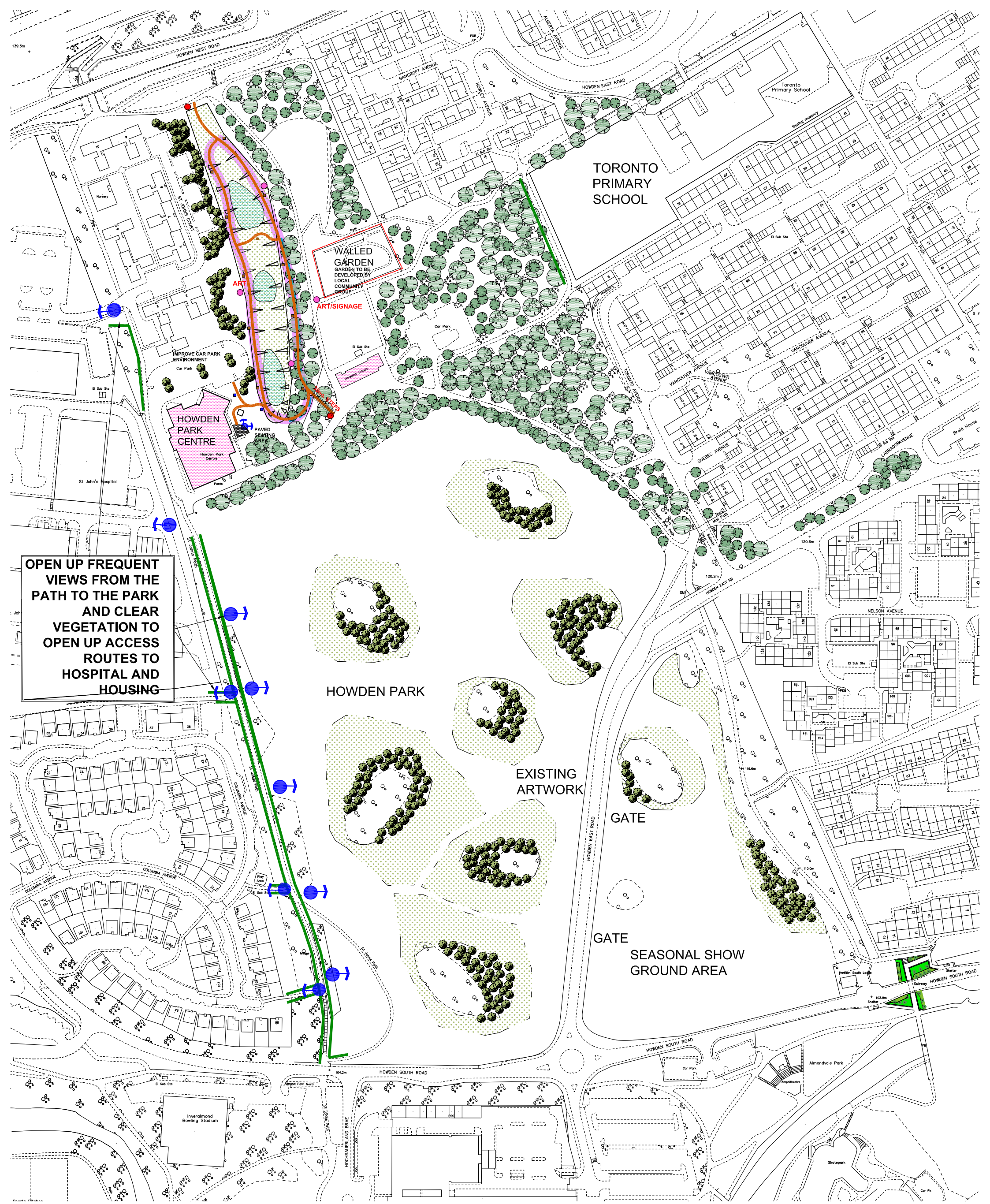
- NEW ARTWORK LOCATIONS
- EXISTING ARTWORKS
- U NEW UNDERPASS ARTWORKS
- U EXISTING UNDERPASS ARTWORKS

ART WORK STRATEGY MAP



APPENDIX 8 – Detailed Proposal Plans L02-L09



	1.5M PATH TO BE IMPROVED		ACCESS ROUTE FOR HEAVY WOODLAND MANAGEMENT VEHICLES WITH BARRIER		NEW WOODLAND PLANTING (1 TREE PER 2 SQM)		NEW SIGNAGE/ENTRY MARKERS		2NO. NEW MAP BOARDS																												
	VEGETATION CLEARANCE		POSSIBLE NEW VIEWING POINT		NEW STAINLESS STEEL SEATS: BLUETON 091 SS		5NO. NEW INFORMAL LOG SEATS		PERCH SEATS: BLUETON STONE CUBE 500 X 500 X 500																												
	HIGHLIGHTED ITEMS INCLUDED IN WIAT COSTS		ITEMS INCLUDED IN WIAT COSTS. THIS PROPOSAL USES INCREASED SPEC		WATER COURSE UPGRADE, FOR DETAILS PLEASE SEE ENGINEERS INFORMATION		2NO STAINLESS STEEL PICNIC TABLES BLUETON 088MS OR WLC SPEC	 <table border="1" data-bbox="2062 1974 2819 2068"> <tr> <td colspan="2">MIKE HYATT LANDSCAPE ARCHITECTS</td> <td>project No</td> <td colspan="2">NORTH LIVINGSTON BLUE GREEN NETWORK</td> <td>job</td> <td>512</td> </tr> <tr> <td colspan="2">5 STABLES YARD 1103 ARGYLE ST GLASGOW G3 8ND</td> <td>drawing No</td> <td colspan="2">PROPOSAL PLAN-PARK RUN & LIVINGSTON VILLAGE PARK</td> <td>drawing No.</td> <td>L02</td> </tr> <tr> <td colspan="2">tel 0141 847 0082 mob 07719 796782</td> <td>scale</td> <td>1:2500</td> <td>sheet</td> <td>MU</td> <td>checkd</td> </tr> <tr> <td colspan="2">email miko@mihyatt.com www.mihyatt.com</td> <td>date</td> <td colspan="4">APR 2018</td> </tr> </table>		MIKE HYATT LANDSCAPE ARCHITECTS		project No	NORTH LIVINGSTON BLUE GREEN NETWORK		job	512	5 STABLES YARD 1103 ARGYLE ST GLASGOW G3 8ND		drawing No	PROPOSAL PLAN-PARK RUN & LIVINGSTON VILLAGE PARK		drawing No.	L02	tel 0141 847 0082 mob 07719 796782		scale	1:2500	sheet	MU	checkd	email miko@mihyatt.com www.mihyatt.com		date	APR 2018			
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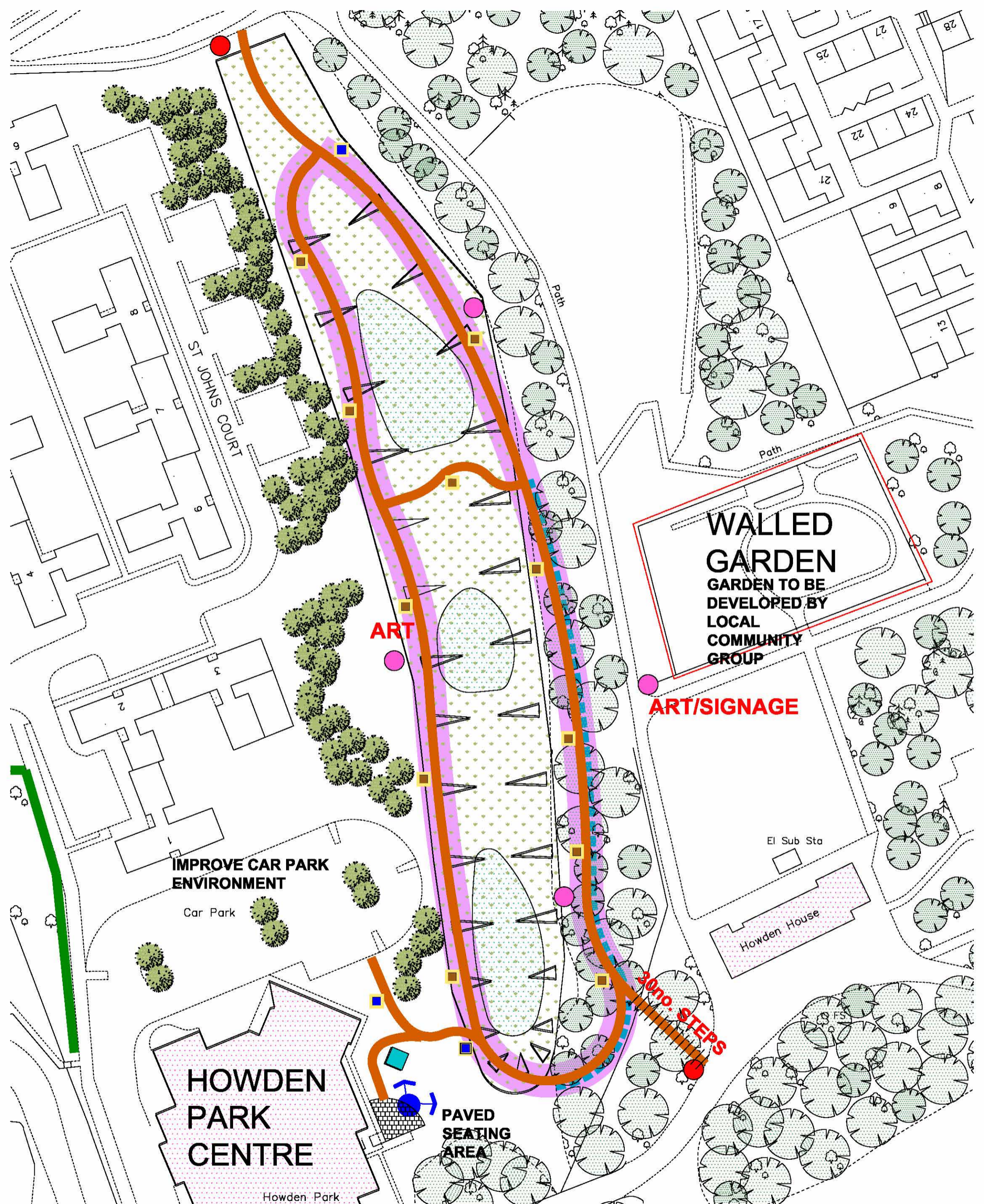
OPEN UP FREQUENT VIEWS FROM THE PATH TO THE PARK AND CLEAR VEGETATION TO OPEN UP ACCESS ROUTES TO HOSPITAL AND HOUSING

-  WETLAND AREA
-  NEW 1.5m ULTITREC PATH
-  NEW WOODLAND TREE PLANTING
-  VEGETATION CLEARANCE
-  NEW ENTRY FEATURE/SIGNAGE
-  NEW WOODLAND TREE PLANTING
-  VIEWING AREA
-  ARTWORK
-  VIEWS TO BE IMPROVED
-  CUT INTO SLOPE
-  HIGHLIGHTED ITEMS INCLUDED IN WIAT COSTS



MIKE HYATT LANDSCAPE ARCHITECTS 5 STABLES YARD 1103 ARGYLE ST GLASGOW G3 8ND tel 0141 847 0062 mob 07719 795782 email mike@mikehyatt.com www.mikehyatt.com	project title NORTH LIVINGSTON BLUE GREEN NETWORK	job 512
	drawing title PROPOSAL PLAN- HOWDEN PARK GENERAL	rev. L03.1 C
	scale: 1:2500@A3	date: APR 2018
	draw: MH	checked:





IMPROVE CAR PARK ENVIRONMENT

Car Park

HOWDEN PARK CENTRE

Howden Park

WALLED GARDEN
GARDEN TO BE DEVELOPED BY LOCAL COMMUNITY GROUP

ART/SIGNAGE


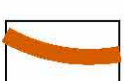
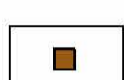
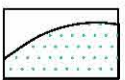

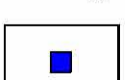



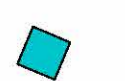



El Sub Sta


Howden House

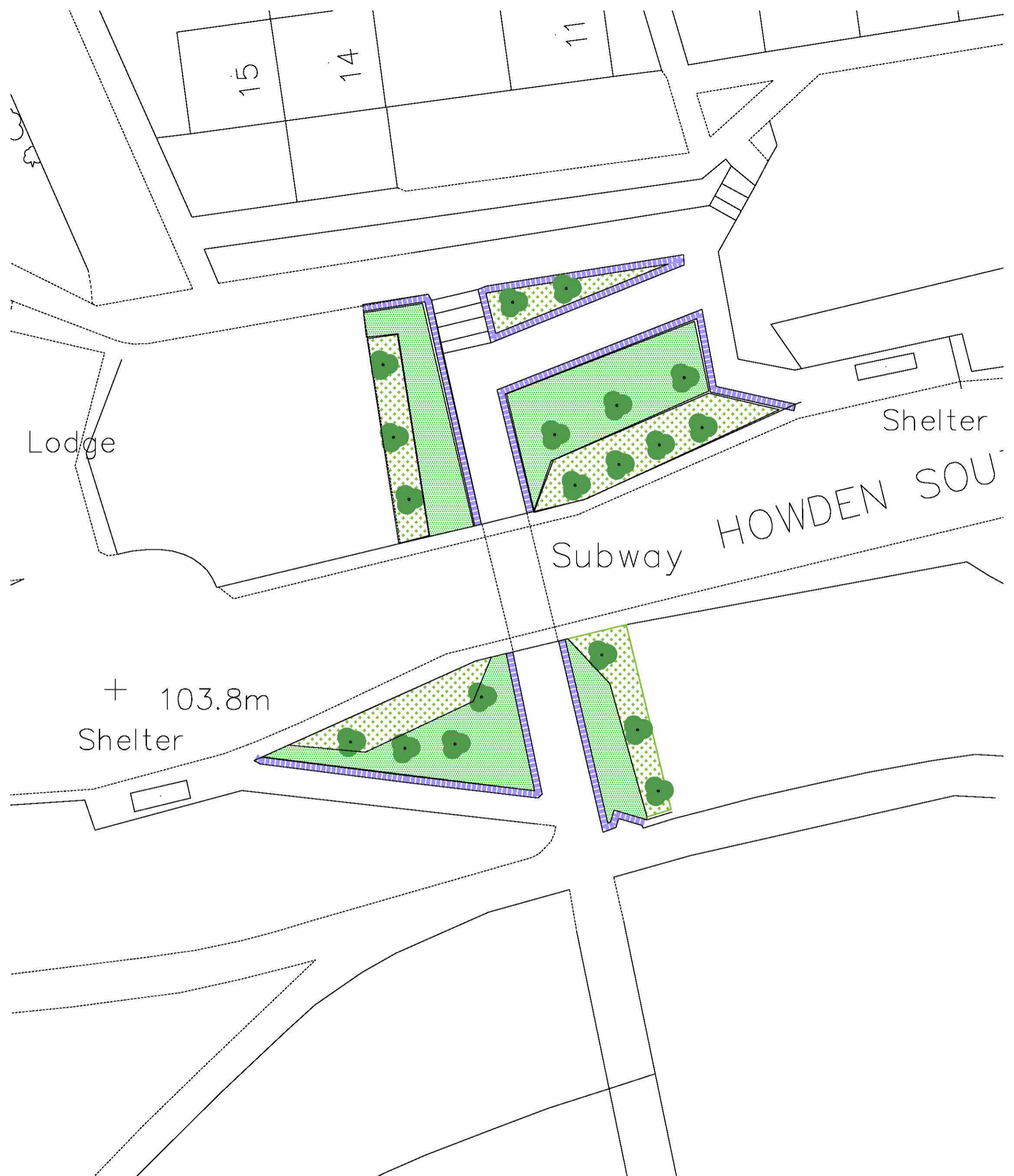
30no STEPS

ART

PAVED SEATING AREA

-  WILDFLOWER MEADOW
-  1.5m WIDE ULTITREC PATH
-  NEW INFORMAL LOG SEATS
-  WETLAND AREA
-  NEW TREE PLANTING
-  NEW STAINLESS STEEL SEATS/PICNIC TABLE
-  ENTRY FEATURE
-  ART WORK
-  VIEWING POINT
-  NEW MAP BOARDS
-  CUT INTO SLOPE
-  ITEMS INCLUDED IN WIAT COSTS. THIS PROPOSAL USES INCREASED SPEC
-  HIGHLIGHTED ITEMS INCLUDED IN WIAT COSTS

MIKE HYATT LANDSCAPE ARCHITECTS 5 STABLES YARD 1103 ARGYLE ST GLASGOW G3 8ND tel 0141 847 0062 mob 07719 795782 email mike@mikehyatt.com www.mikehyatt.com	project title NORTH LIVINGSTON BLUE GREEN NETWORK	job 512	
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	date:	APR 2018	



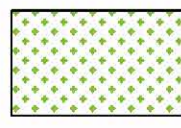
Lodge

Shelter

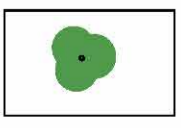
Subway

HOWDEN SOUTH

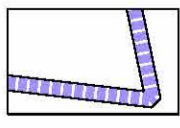
+ 103.8m
Shelter



VEGETATION CLEARANCE AND REPLANT WITH GROUND COVER SHRUBS



NEW SPECIMEN SHRUB



POWER WASH AND REPOINT WALLS



VEGETATION CLEARANCE AND TURF



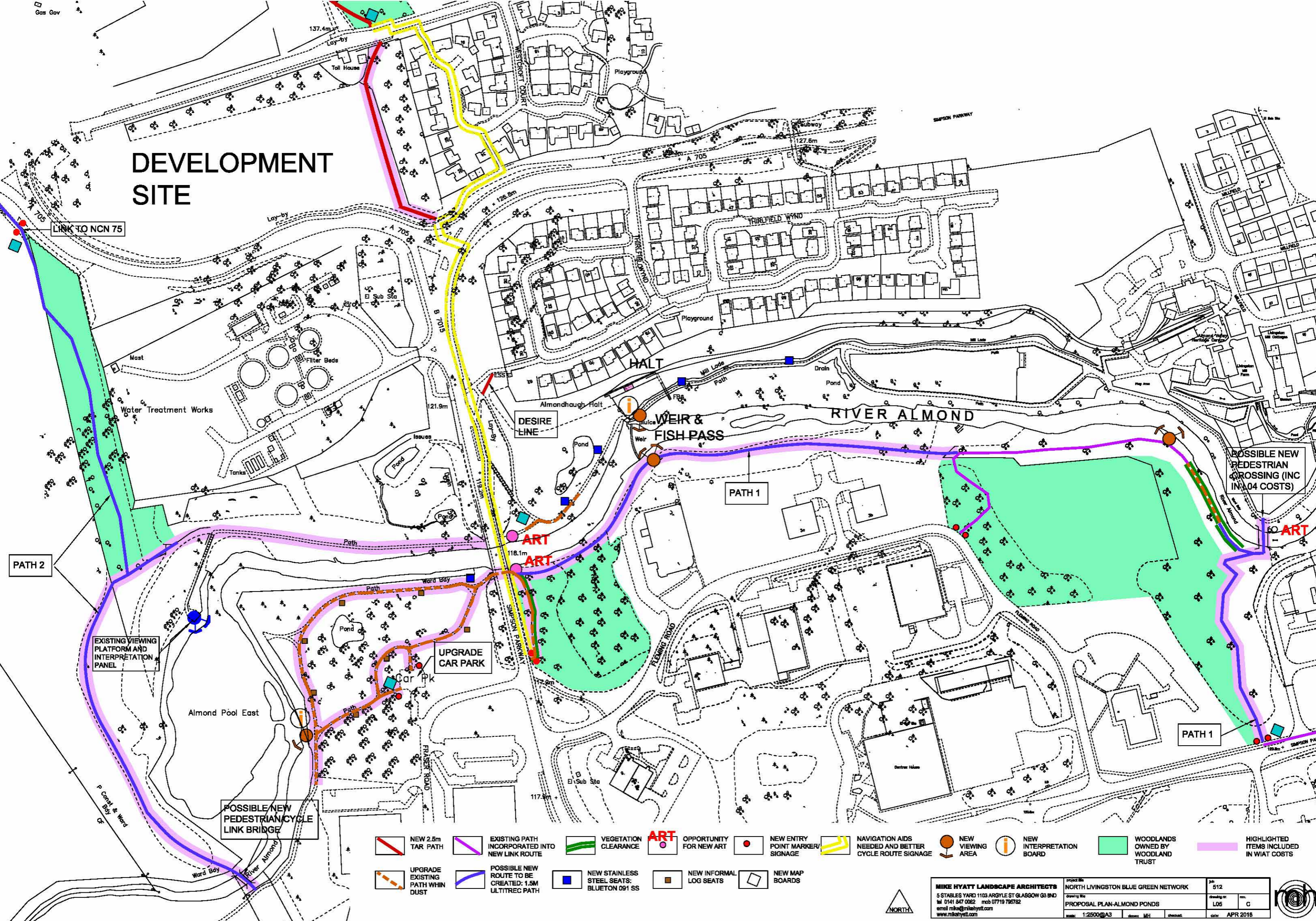
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project title: NORTH LIVINGSTON BLUE GREEN NETWORK
 drawing title: PROPOSAL PLAN- HOWDEN PARK UNDERPASS
 scale: 1:250@A3 draw: MH checked: date: APR 2018

job	512
drawing nr.	L03.3
rev.	C
date	APR 2018



DEVELOPMENT SITE



LINK TO NCN 75

PATH 2

PATH 1

PATH 1

POSSIBLE NEW PEDESTRIAN CROSSING (INC IN 04 COSTS)

POSSIBLE NEW PEDESTRIAN/CYCLE LINK BRIDGE

- NEW 2.5m TAR PATH
- EXISTING PATH INCORPORATED INTO NEW LINK ROUTE
- VEGETATION CLEARANCE
- OPPORTUNITY FOR NEW ART
- NEW ENTRY POINT MARKER/SIGNAGE
- NAVIGATION AIDS NEEDED AND BETTER CYCLE ROUTE SIGNAGE
- NEW VIEWING AREA
- NEW INTERPRETATION BOARD
- WOODLANDS OWNED BY WOODLAND TRUST
- HIGHLIGHTED ITEMS INCLUDED IN WIAT COSTS
- UPGRADE EXISTING PATH WITH DUST
- POSSIBLE NEW ROUTE TO BE CREATED: 1.5M ULTITREC PATH
- NEW STAINLESS STEEL SEATS: BLUE TON 091 SS
- NEW INFORMAL LOG SEATS
- NEW MAP BOARDS

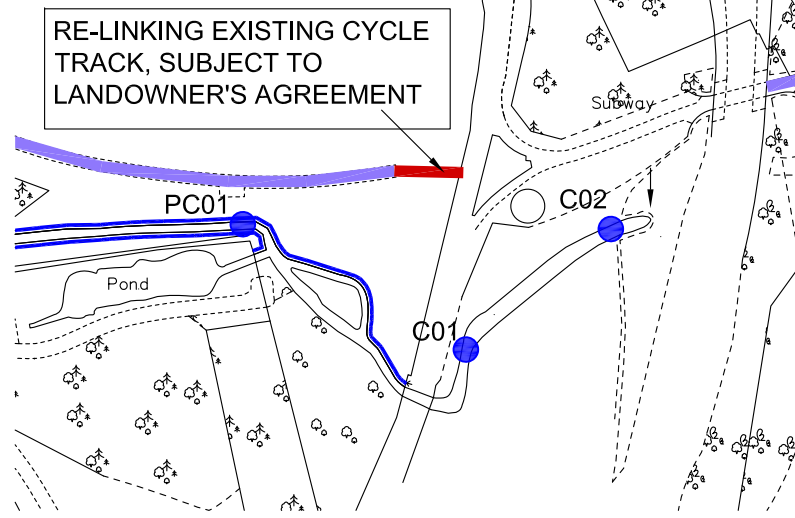
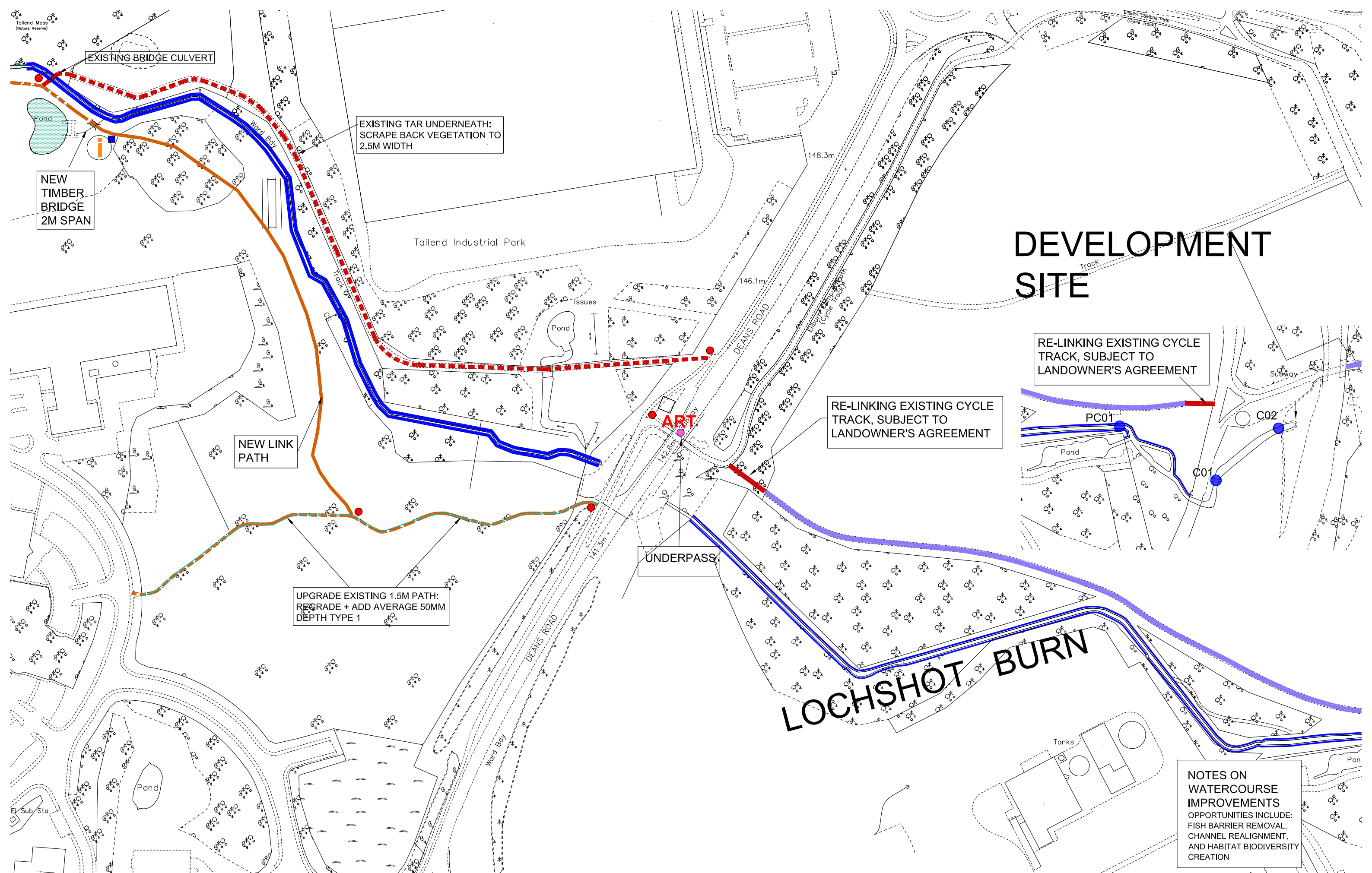
MIKE HYATT LANDSCAPE ARCHITECTS
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 tel 0141 847 0082 mob 07719 796782
 email mike@mikehyatt.com www.mikehyatt.com

project: NORTH LIVINGSTON BLUE GREEN NETWORK
 drawing: PROPOSAL PLAN-ALMOND PONDS
 scale: 1:2500@A3 client: MH checked: date: APR 2018

5/12
 L05
 C



DEVELOPMENT SITE



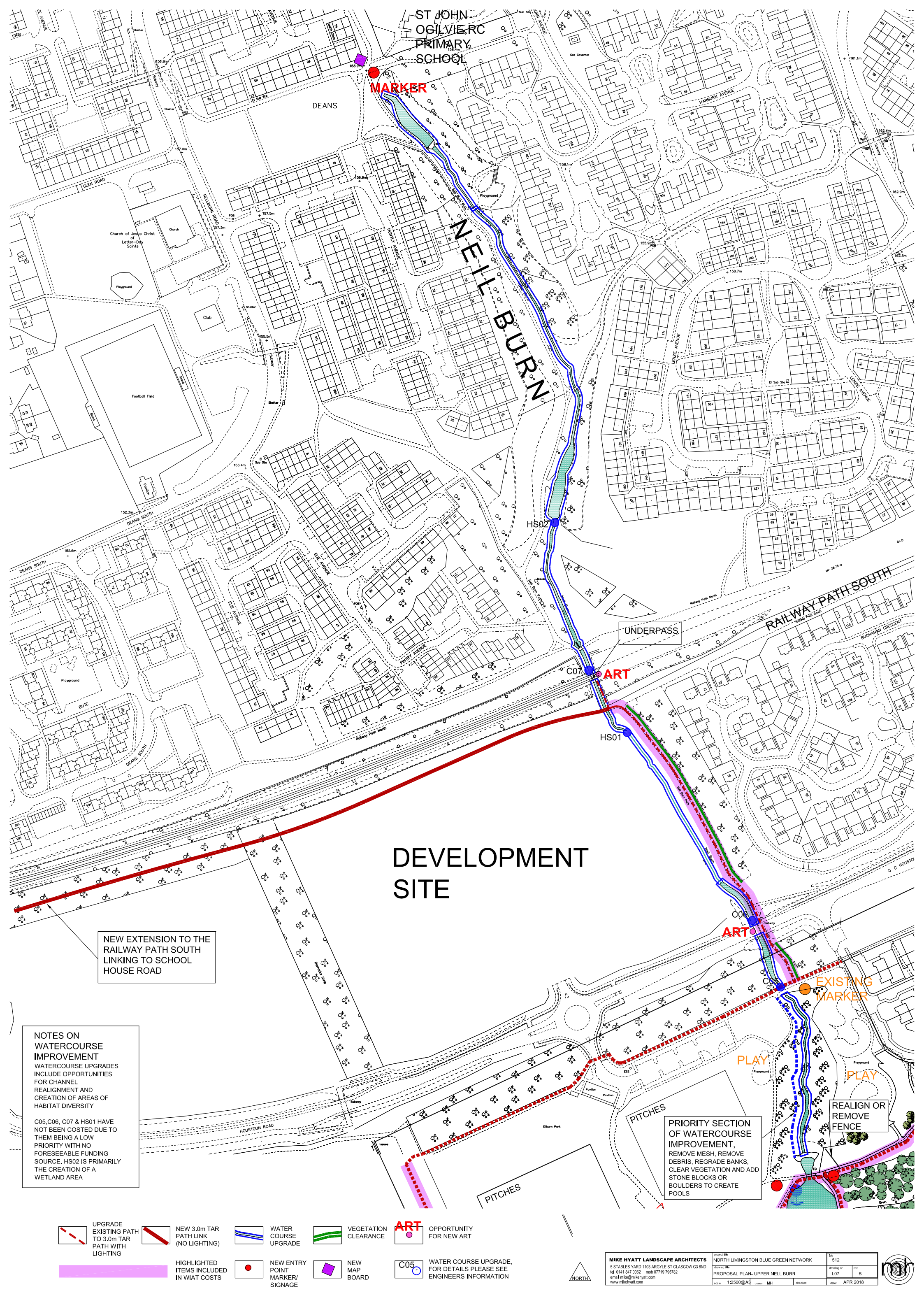
NOTES ON WATERCOURSE IMPROVEMENTS
 OPPORTUNITIES INCLUDE:
 FISH BARRIER REMOVAL,
 CHANNEL REALIGNMENT,
 AND HABITAT BIODIVERSITY
 CREATION

- NEW 3.0m TAR PATH
- UPGRADE EXISTING 2.5M PATH
- UPGRADE EXISTING 1.5M PATH
- UPGRADE EXISTING BLAES PATH
- NEW INTERPRETATION BOARD
- EXISTING PATH NOT YET FORMALLY OPEN FOR USE
- NEW STAINLESS STEEL SEATS
- NEW MAP BOARD
- ART OPPORTUNITY FOR NEW ART
- NEW ENTRY POINT MARKER/SIGNAGE
- WATER COURSE UPGRADE, FOR DETAILS PLEASE SEE ENGINEERS INFORMATION



MIKE HYATT LANDSCAPE ARCHITECTS 5 STABLES YARD 1103 ARGYLE ST GLASGOW G3 8ND tel 0141 847 0062 mob 07719 795762 email mike@mikehyatt.com www.mikehyatt.com		project title NORTH LIVINGSTON BLUE GREEN NETWORK	job 512
drawing title PROPOSAL PLAN-TAILEND MOSS		drawing nr. L06	rev. B
scale: 1:2000@A3	drawn: MH	checked:	date: APR 2018














DEVELOPMENT SITE

NEW EXTENSION TO THE RAILWAY PATH SOUTH LINKING TO SCHOOL HOUSE ROAD

NOTES ON WATERCOURSE IMPROVEMENT
 WATERCOURSE UPGRADES INCLUDE OPPORTUNITIES FOR CHANNEL REALIGNMENT AND CREATION OF AREAS OF HABITAT DIVERSITY
 C05, C06, C07 & HS01 HAVE NOT BEEN COSTED DUE TO THEM BEING A LOW PRIORITY WITH NO FORESEEABLE FUNDING SOURCE. HS02 IS PRIMARILY THE CREATION OF A WETLAND AREA

PRIORITY SECTION OF WATERCOURSE IMPROVEMENT,
 REMOVE MESH, REMOVE DEBRIS, REGRADE BANKS, CLEAR VEGETATION AND ADD STONE BLOCKS OR BOULDERS TO CREATE POOLS

-  UPGRADE EXISTING PATH TO 3.0m TAR PATH WITH LIGHTING
-  NEW 3.0m TAR PATH LINK (NO LIGHTING)
-  WATER COURSE UPGRADE
-  VEGETATION CLEARANCE
-  OPPORTUNITY FOR NEW ART
-  HIGHLIGHTED ITEMS INCLUDED IN WIAT COSTS
-  NEW ENTRY POINT MARKER/SIGNAGE
-  NEW MAP BOARD
-  WATER COURSE UPGRADE, FOR DETAILS PLEASE SEE ENGINEERS INFORMATION

MIKE HYATT LANDSCAPE ARCHITECTS 5 STABLES YARD 1103 ARGYLE ST GLASGOW G3 8ND tel 0141 841 0982 mob 07719 795782 email mike@mikehyatt.com www.mikehyatt.com	project no: NORTH LIVINGSTON BLUE GREEN NETWORK	job: 512	
	drawing title: PROPOSAL PLAN- UPPER NELL BURN	drawing no.: L07	rev.: B
	scale: 1:2500@A3	author: MH	date: APR 2018






REFRESH THE PARK BY:

- TOPPING UP PATHS
- REPAINTING BENCHES

PEEL PARK

-  NEW FRUIT TREES TO REPLACE DYING TREES
-  EXISTING TREES
-  PROPOSED WILDFLOWER MEADOW
-  NEW BOUNDARY SCREEN HEDGE PLANTING
-  INFILL HOLES IN EXISTING HEDGE WITH BEECH PLANTS
-  NEW ENTRY POINT MARKER/SIGNAGE
-  NEW MAP BOARD



NORTH

MIKE HYATT LANDSCAPE ARCHITECTS
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project title
NORTH LIVINGSTON BLUE GREEN NETWORK

drawing title
PROPOSAL PLAN- PEEL PARK


scale: 1:1000@A3

job no
512

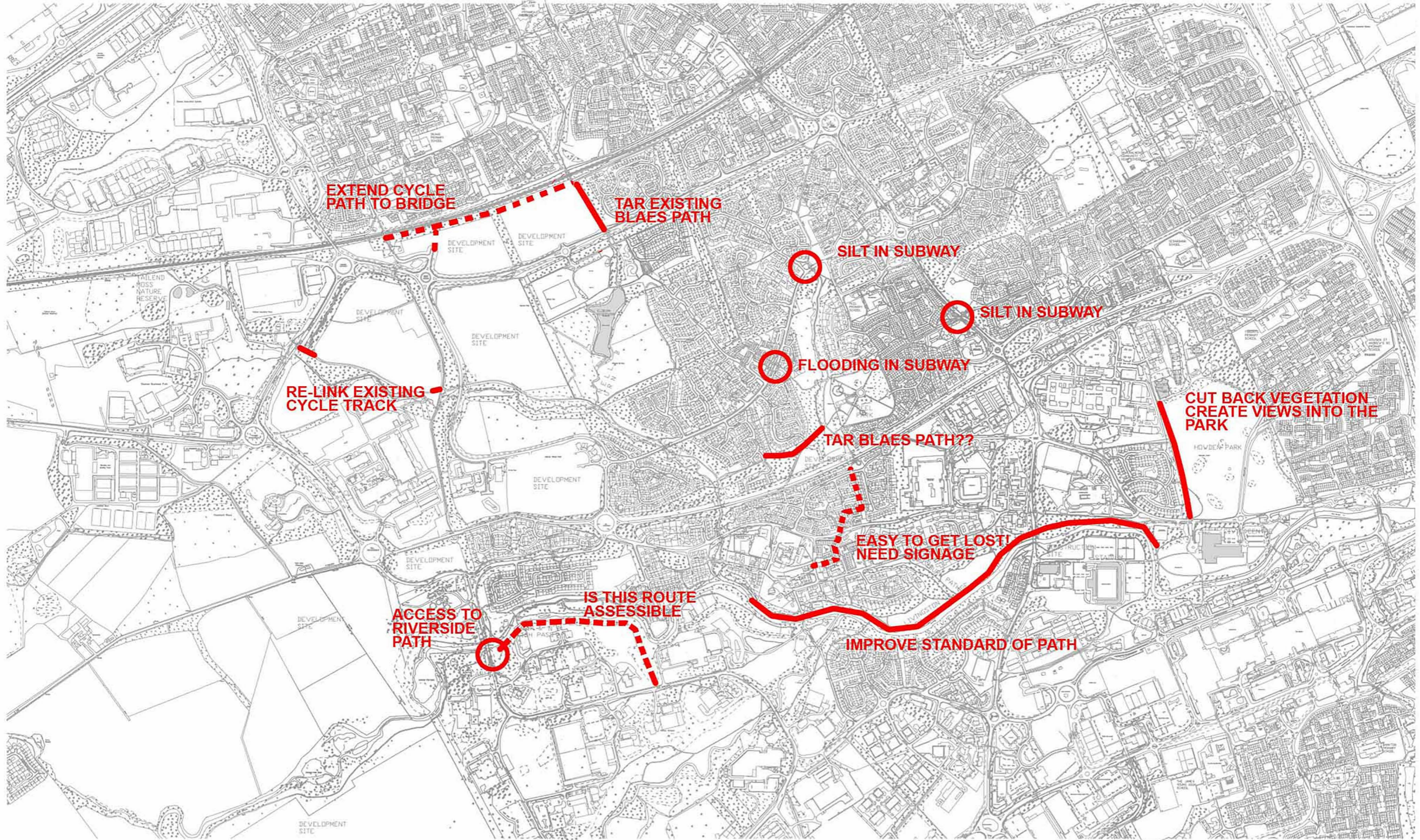
drawing no.
LO9




rev.
B

date
APR 2018



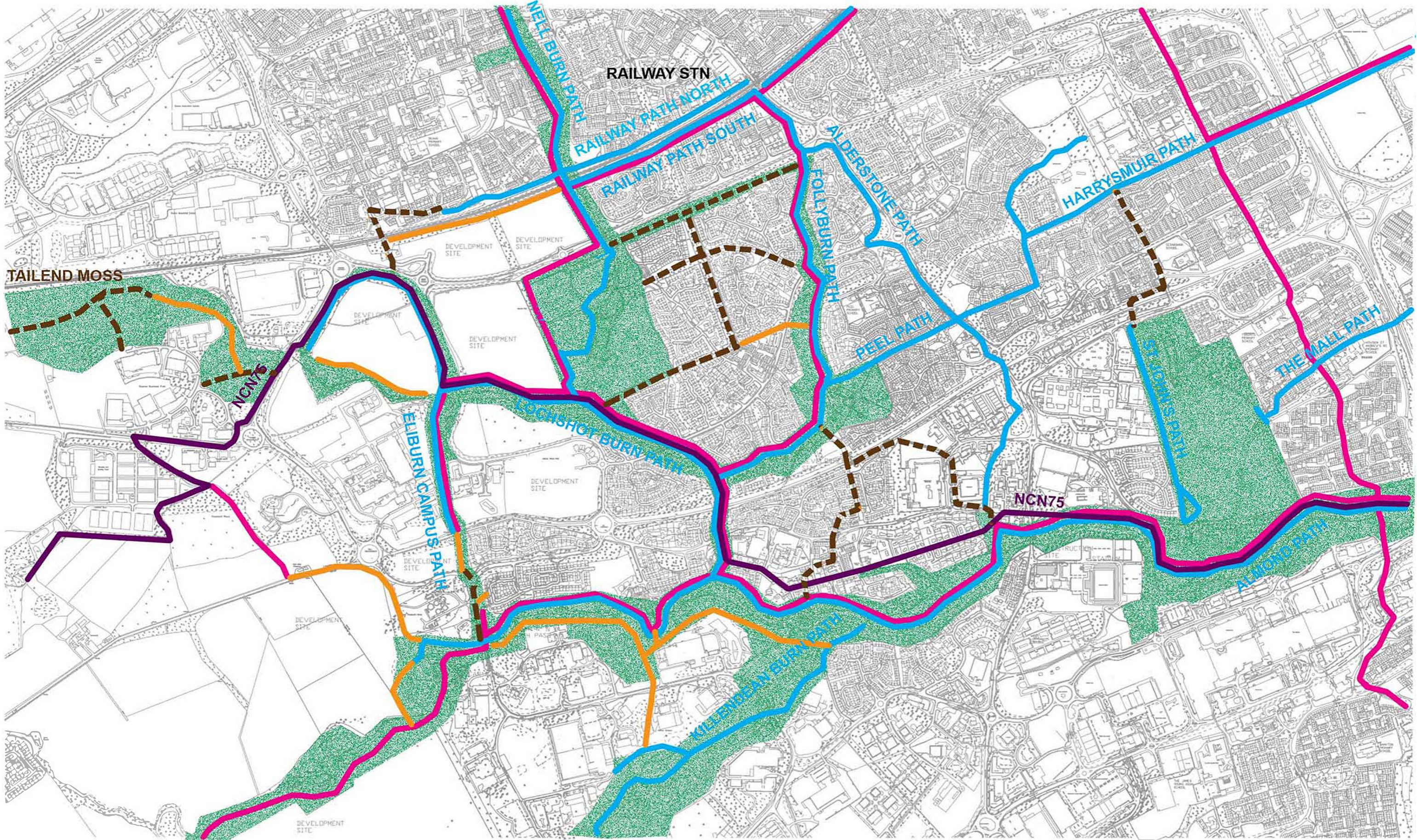
APPENDIX 9 – Site Specific Comments Plan









-  ROUTES TO IMPROVE
-  NEW ROUTES
-  UNDER PASSES TO IMPROVE

SITE SPECIFIC COMMENTS FROM CONSULTATION

APPENDIX 10 – Routes Strategy Plan



(SITE SPECIFIC CONSULTATION COMMENTS)

- | | | | |
|---|-------------|---|----------------------|
|  | NCN 75 |  | MISSING LINKS |
|  | CORE PATHS |  | OTHER PATHS |
|  | NAMED PATHS |  | BLUE-GREEN CORRIDORS |

ROUTES STRATEGY MAP



North Livingston Blue Green Network
Consultation Report *DRAFT-revA*
2018

Contents

1.0 The project

2.0 Scope of the consultation

3.0 Report on Consultation Process

4.0 Consultation results

5.0 Conclusions

Appendices

Detailed responses

Map showing home location for attendees and questionnaire respondents

Site specific comments including park run map

Survey Monkey results

On-line survey Question 8 responses

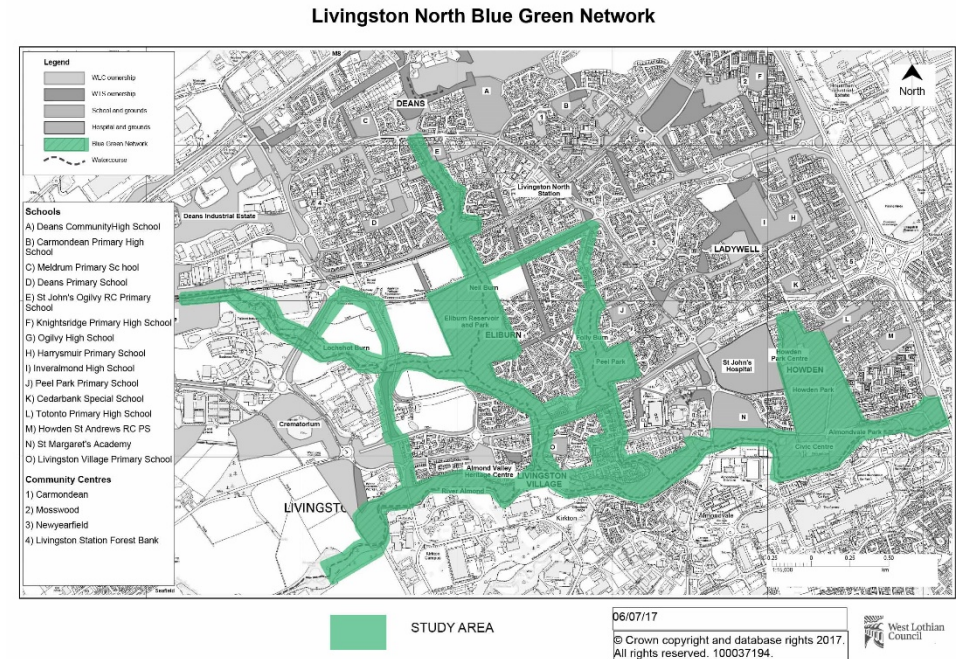
1.0 The Project

Mike Hyatt Landscape Architects were appointed in late 2017 as lead consultants working with Mark Hamilton Landscape Services (MHLS). The aim of the project is to carry out a survey of the areas green corridor identified on the map and provide a masterplan to improve the currently fragmented blue green infrastructure. This study was principally funded by a grant from the Central Scotland Green Network Trust: Development Fund 2017/18 as well as West Lothian Council (WLC). The study area is limited to north Livingston but follows a similar project carried out in south Livingston blue green network focussed on the Dedridge, Bankton Mains and Muirieston areas in 2015. The improvements in south Livingston have been seen as a success encouraging greater use of the blue green network by local residents as well as people from across Livingston.

Mike Hyatt Landscape Architects have carried out initial survey work focusing on the access routes. The surveys were carried out with WLC staff auditing condition and identifying opportunities. Mark Hamilton Landscapes have been working with the WLC Tree and Woodland Officer to develop woodland management plans for public land in the area that can be submitted as future funding bids to the Forestry Commission Scotland.

Mike Hyatt Landscape Architects are also liaising with engineers at Mott MacDonald who have a separate commission from West Lothian Council running concurrently to identify water courses improvements with the study area. This will allow a holistic approach to any improvement works to the blue green network.

Following on from the initial survey work the project has now been seeking input from the various WLC Services, other local organisations with an interest in the project as well as local residents and users of the network. To this end an online questionnaire has been promoted through the Council website and five drop in open consultation sessions have been carried out at local venues from Late January to mid-February 2018. This report highlights the results from this process.



2.0 Scope of the consultation

On Line Questionnaire

A Survey Monkey questionnaire was set up on West Lothian Council Website with links to it from other relevant web pages on the WLC website

Participants such as of local organisations, community councils, community groups, schools and other relevant organisations were invited to comment to try and stimulate discussion and complete the questionnaire.

The questions asked are summarised below:

Q1 - *how often do you use the path network in North Livingston?*

Q2 - *f you never use the path network, please tell us why / what puts you off using it*

Q3 - *if you use the path network, what do you use it for?*

Q4 - *please list what you like about the network including any comments about the paths, woodlands, trees, greenspaces, rivers and burns*

Q5 - *please list any problems or issues with the network, including any comments about the paths, woodlands, trees, greenspaces, rivers and burns*

Q6 - *how do you find your way around the network?*

Q7 - *please list any improvements you would like to see to the network*

Q8 - *please look at the draft masterplan and let us know what you think of these initial ideas from the landscape architect... are they generally along the right lines? What other ideas and changes would you like to see incorporated?*

Q9 - *Please let us know your postcode, so we can see roughly where participants are from*

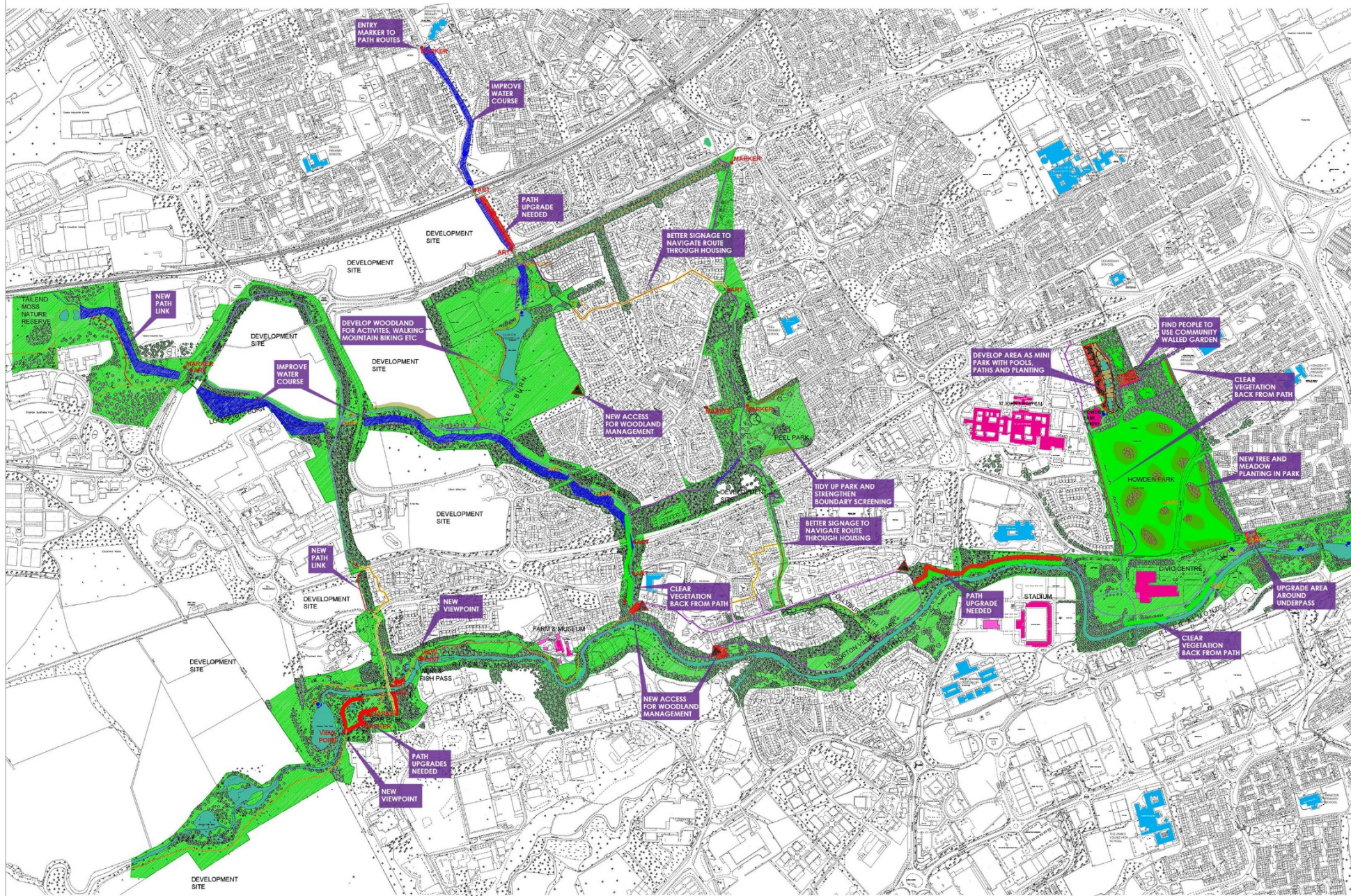
Q10 - *If you'd like to be kept informed or further involved, please tick the box(es) that apply below and share your contact details with us. These will be held by West Lothian Council and will be used to contact you about the Livingston North Blue-Green Network.*

Results from the questionnaire can be found in Appendix 4. and are incorporated into the detailed summary results table in appendix 1.

Consultation Events

Five consultation events were organised at venues within the study area. These included Howden Park Centre, Carmondean Library , Almond Valley Heritage Centre and Livingston Station Community Centre. A large map was the centre piece of the exhibition, indicating were issues and opportunities have been identified through the survey work so far. Likewise, boards showing woodland and water course issues and opportunities and examples from elsewhere of similar successful blue / green improvements were presented on separate boards to try and stimulate discussion.

Feedback was recorded through Postits and some hand written versions of the questionnaire



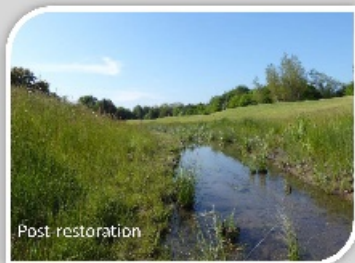
Blue Network Issues and Opportunities board

How can we improve habitats and biodiversity?



Pre-restoration

© MOTT MACDONALD



Post restoration

River Dursburn, Newcastle

Channel enhancement in an artificial urban channel:

Improving a straightened stretch of river flowing through an artificial channel by improving the flow, and reintroducing gravels and vegetation into the riverbed. This can enhance habitat for wildlife.



Nell Burn

© MOTT MACDONALD

How can we restore the natural environment?



Pre-restoration

© ADOM



Post restoration

Road Burn, Iron Park, Foulmugh

Naturalising a lined urban channel:

Re-meandering river by replacing brick/concrete with natural gravel river bed and sloping river banks. This also improves the habitat for plants and animals. It also makes the river more attractive.

How can we improve your local environment?



View of pond clipping area, River Coaggy

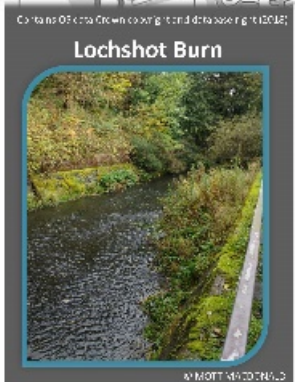
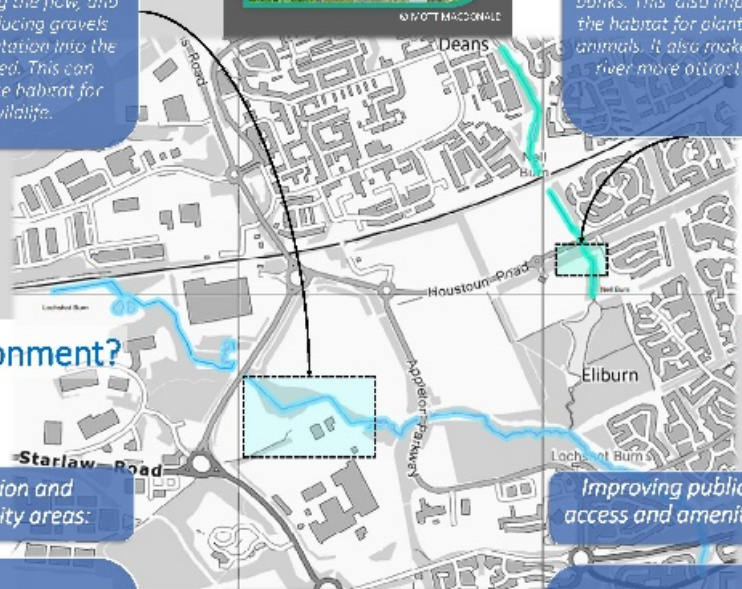
© BBC / BVA



Annual charity duck race on the River Marston.

Education and community areas:

River restoration can reconnect people to their natural environment. Rivers can be used for education and recreation; there could be nature trails, information on local wildlife, with boardwalks positioned along the river's edge, or pond clipping platforms and education areas. For example Livingston South LSBN, Muireston.



Lochshot Burn

© MOTT MACDONALD

Improving public access and amenity:

A straight section of river was restored, whilst improving public access and recreation. For example Nell Burn Pond.

What features would you like to see?



Before

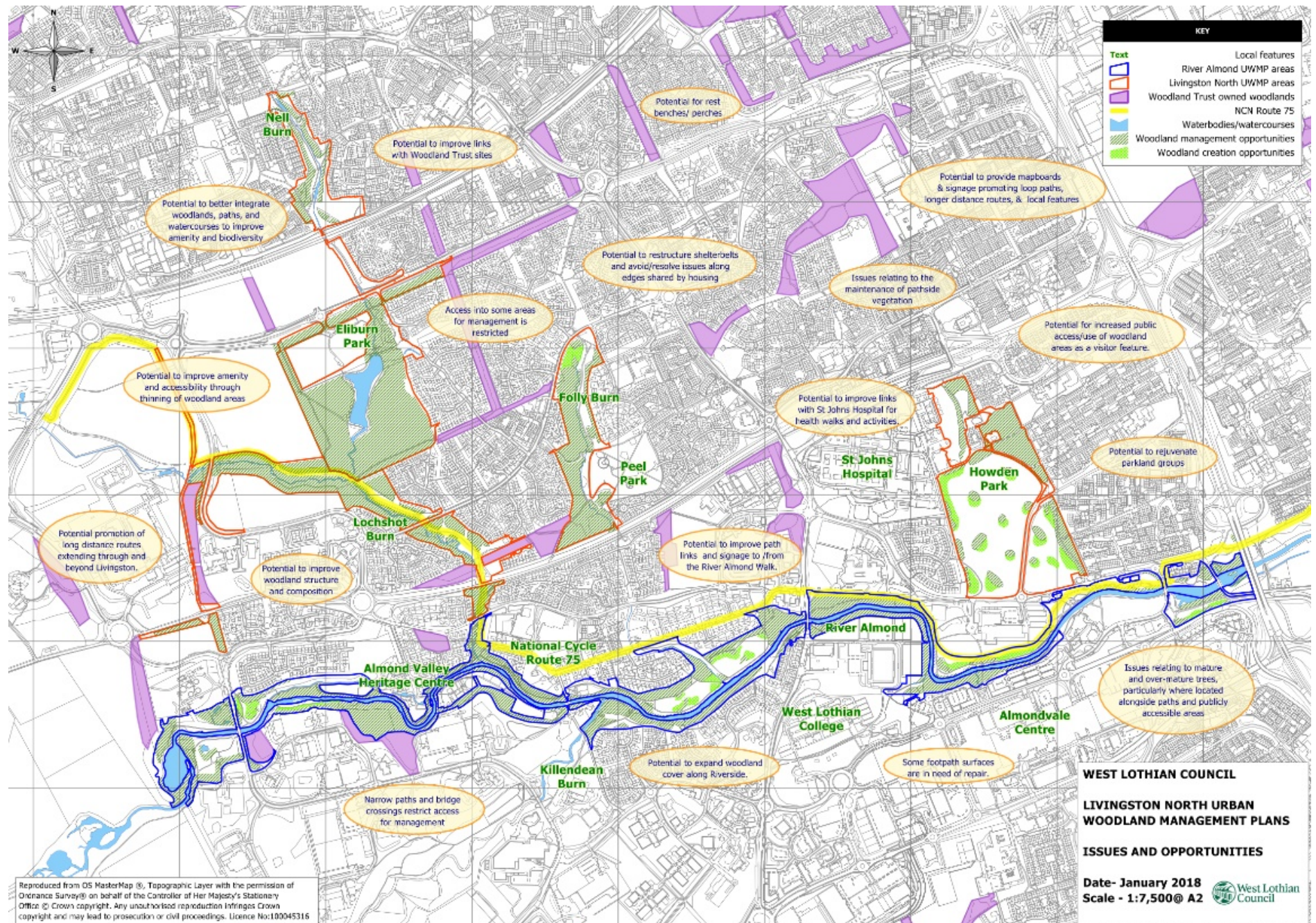
© BBC / NFA



After

River Marden, Wiltshire, England

Woodland Issues and Opportunities board



3.0 Report on Consultation Process

Consultation Events

Five events were carried out at the venues and times below. These events were advertised through _____. Attendance varied depending on venue as indicated below but a total 77 people were recorded as providing response at the events.

Event Date	Location	Time	Attendees
24th Jan	Howden Park Centre	12.00-4.00pm	20
25th Jan	Carmodean Library	3.00-7.00pm	22
31st Jan	Howden Park Centre	2.00-6.30pm	23
1st Feb	Almond Valley Heritage Centre	12.00-4.00pm	6
7th Feb	Livingston Station Community Ctr	10am-1.00pm	6

Howden Park Centre and Carmodean Library had a good through put of people coming to other events as well as coming specifically to see the exhibition. Almond Valley Heritage Centre and Livingston Station Community Centre had far fewer people visiting and relied more on attendees who had specifically come to see the exhibition. All Community Councils within the study area were informed about the consultation events and sent a copy of the survey and a link to the on-line consultation. Similarly, all local primary schools within the study area and businesses in adjacent employment sites were also issued with the consultation material.

The attendees were mainly drawn from residents of north Livingston with some from southern and eastern areas. A significant number from outside Livingston also visited the event showing the importance of the green network not only to Livingston residents but also people from surrounding areas. A map showing where the attendees came from can be found in appendix 2.



Concurrent with the consultation events an on-line questionnaire was run on the Council website. Detailed results from the 10 questions can be found in appendix 4. The highest response of 32 people was to the question about path network usage with 37.5% stating they use the network more than once a week with the majority 68% using it for leisure. There was a strong emphasis in other answers on the positive contribution the blue green network makes to living in Livingston and also some useful comments on issues to be addressed.

A wealth of information was collected, and a full detailed summary list of responses can be found in appendix 1. A summary of the key categories of interest noted up by attendees, is set out on the following page.

Summary of findings – Postits and Online Questionnaire

Order of preference	Comment	number of times mentioned
1	What they like about the paths	62
2	Signage and navigation issues	58
3	Condition of paths, issues	46
4	Issues preventing path use	39
5	Improvement ideas	31
6	Seating and Viewpoints	7
7	Importance of nature attracting users	6
8	Path route improvement ideas	6
9	Howden Park Centre mini eco park	3
10	Woodland Issues	3
11	Waterway Issues	2
12	Importance of events	1

The comments above have been grouped into the general themes that became evident through the consultation process.

The consultation process clearly indicates how important the blue green network is to residents and visitors. Specifically, the ability to be in a natural landscape setting within the large built-up area and to be separate from traffic while still being close enough to houses and other people to feel safe. There is a very positive sentiment towards the network to build on for this project across the north part of Livingston.

It was also interesting to note that although the condition of the paths is seen as important, a much higher proportion of responses centred around navigation and signage. The main comments were for better signage, a difficulty in being able to understand how all the paths link together in a network and having more maps that not only highlighted the routes but also the attractions that they give access to.

A positive outcome, made evident by the consultation process, was the great deal of appreciation local residents have for the benefits the paths and green networks bring to them in North Livingston. It is not only

appreciated by local residents but also a significant number of people who travel into Livingston and use the paths often in combination with places of interest such as the Almond Valley Heritage Centre, play areas and enjoying the natural settings of the routes. It was also noted a number of times how the routes are seen as safe places for children to go and explore in groups especially by bike as parents did not have to worry about them coming in contact with roads and traffic. A map showing where the attendees came from as well as the on-line respondents can be found in appendix 2

The condition of paths was seen as an issue that needed to be addressed, especially lighting, drainage and in some places the path surface. This information will help guide detailed proposals for path improvements, especially as attendees could highlight specific areas that were in need of improvement.

Key factors that are seen as barriers to path use were, the overgrown nature of some paths, the uninviting nature of some underpasses but the greatest barrier was seen as the lack of promotion and general awareness that the green network exists. This suggests that as important as the paths physical condition is, promoting the network is of high importance also.

As well as the paths being in good condition, with drainage addressed, path surface improved in some places and vegetation cut back, attendees also had some creative solutions to create an imaginative infrastructure of seats, art, play and view points for selfies! Providing seating, picnic tables and viewpoints were specifically mentioned.

Also clear from the consultation is how important the natural semi-rural character of the blue green network provides natural habitats in the heart of Livingston and how that should be protected. The development of the areas adjacent Howden Park Centre received some support as a mini eco park.

The comments were very much centred around the access routes and woodland management and the waterways did not feature heavily in the comments.

4. Conclusions

The consultation process has provided some clear indications to where the users of the blue green network see the issues and opportunities. Priorities for action are set out below:

- Upgrade signage
- Promote the path network better including providing maps to show how the network links up
- Address drainage issues
- Improve surface where required
- Clear areas of rubbish and dumping (broken glass & dumping)
- Cut back vegetation
- Use art to add interest to routes and make underpasses more welcoming (address some of the barriers to use, antisocial behaviour, underpasses)
- Respondents endorsed the draft masterplan ideas and improvement approach

It should be noted that 13 people left their contact details as part of the on-line survey, so that they can be kept informed of developments and it is hoped be more engaged in possible community involvement in aspects of the improvement works.

The initial draft masterplan can now be refined based on these results on how to tackle the physical improvements needed. Signage and maps will need to be a specific project in themselves. As it stands the masterplan received strong endorsement through the responses to Question 8 in the online questionnaire, see appendix 5, so added refinement and detail based on the existing approach would seem the best way forward.

There was support expressed for upgraded furniture, bins, seats, interpretation, viewpoints and additional routes added to the network. These can be developed further through next stage of the design work.

Success of the Consultation Process

The number of responses to the online survey ranged from 18-41 responses depending on the question and at the open events 77 people provided responses. These responses give a robust set of data on which to develop the proposals the next detailed stage. Anecdotally at the consultation events the responses overwhelmingly came from people in their 20s and over. Also, anecdotally the gender split was roughly equal. None of this detail can be gained from the online questionnaires but it is likely that a similar demographic was responding. However there does not appear to be full representation from young people or those with disabilities and it would be worth trying to gain some additional responses from schools and disability groups. This would make sure that any detailed aspects of the project that may meet the needs of these groups are not overlooked.

2	Signage and navigation issues <ul style="list-style-type: none"> - better signage needed, some are pointing wrong way, or damaged, must be checked regularly, - Quiet routes in Edinburgh well signed on lamp posts, could use as an example ? - Add mileage to destination and difficulty - Navigation through housing estates difficult, better signs - More shared use signs so pedestrians are not suppressed seeing cyclists - Ground markings to help segregate ped + cycles - Sign key attractions Civic Centre, Station, Hospital etc, from the routes and surrounding settlements - Need vandal proof signage - Need Dos and Don'ts signs, remind cyclists to take care, dog owners to keep pets under control, - Add final destination - Well signed route to and from Livingston Stn needed - Can't orientate hard to see how paths link up, marker system? - Difficult to find the walled garden - Downloadable maps useful - Mapboards for orientation would be helpful. General lack of awareness of Greenway path network and links, including places to visit, attractions, play areas, cafes. Etc. - Apps for running routes wanted - Interpretation for art works would be good - Difficult to find Peel Park, need entry feature - Some more distance markers for fitness routes would be good - Not sure what some of the markers are for - Provide paper maps of routes in schools - Paths exist on a map but don't feel connected on the ground 							
Total		3	3	1		9	16	
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						1	1	
						1	1	
		4	2	1		1	7	
		1					1	
		1					1	
		2	4	1	1	5	13	
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3	Condition of paths issues <ul style="list-style-type: none"> - Better lighting needed in some places (Eliburn reservoir path, near Inveralmond) - Ponding, mud and drainage issues causing ice in winter, slip hazard when wet at other times - Poor maintenance - Accident black spot cyclist killed a pedestrian - remove dog mess' - Rubbish, broken bottles, shopping trolleys and litter in some places - Path surface poor needs improved - Policy on path furniture needed as benches being removed, (need to coordinate with Woodland Trust) - Leaves accumulating 							
Total		2	1	2	1	1	1	5
				1			11	17
							2	2
				1				1
			1			2	1	4
				1		2	6	9
			3			1	2	6
							1	1
					1			1
								46
4	Issues preventing path use & path user issues <ul style="list-style-type: none"> - Paths are over grown in some places, lack of forward visibility, better sightlines for cyclists - Paths need to be promoted better - Dog walk but don't use paths as feel they are too isolated and overgrown - "don't walk on paths feel a bit uncomfortable on path" - Young people hanging about near paths (Livi Village Park, Eliburn Res car park, picnic tables) - Underpasses are dark and uninviting - Comment "until I joined a walking groups didn't know these paths existed" - Excessive professional dog walking with large groups of dogs on the paths - Lack of tar on some paths is a disadvantage to people with disabilities - Only use the paths that are busy 							
Total		2	2	1	4	1	8	12
				1				6
				1				1
				1			4	5
			2			1	3	6
			1			1	3	5
					1			1
						1		1
							1	1
		1						1
								39

5	Improvement ideas <ul style="list-style-type: none"> - Make paths wide enough for two buggies a breast and a bike can pass - Proper vandal proof signage would certainly improve the experience - Public toilets - Mini hydro for rivers and burns - Minimum spec of paths should be blaes if not asphalt - Make all routes cycle friendly, remove sharp bends, min width, drop kerbs, remove bollards so not dismount needed - make sure constrictions in paths are wide enough for,; wheelchairs, tandem cycles and recumbent trikes to negotiate without dismount. - Selfie points such as at Kelpies - More dog waste bins and litter bins, empty regularly, recycle bins at entry to housing areas and schools - CCTV to catch people not picking up dog poo - Creative viewing platforms, stainless steel etchings on - Creative way markers - Creative designed infrastructure - Peel Park has poor initial impression. Park and boundaries in need of TLC - Some colourful plants - Artworks in open spaces and along routes so people can interact with them at leisure - Make sure mechanical sweepers do and can run down paths - Make sure path edges are well cut reduce cutting elsewhere - Improve wetlands - Links to hospital , physios using the Walled Garden - Add allotments to the Walled Garden - Make sure core path routes are prioritised - Repair and paint the metal railings around the boundary of Howden Park - Anything within reason that would make a lone walker feel safer. - include recreation features and link to open space associated with new housing developments - Fitness equipment - Kids play items along paths such as the wooden snake at Linlithgow Loch 							
Total			1	1	1	1	1	31

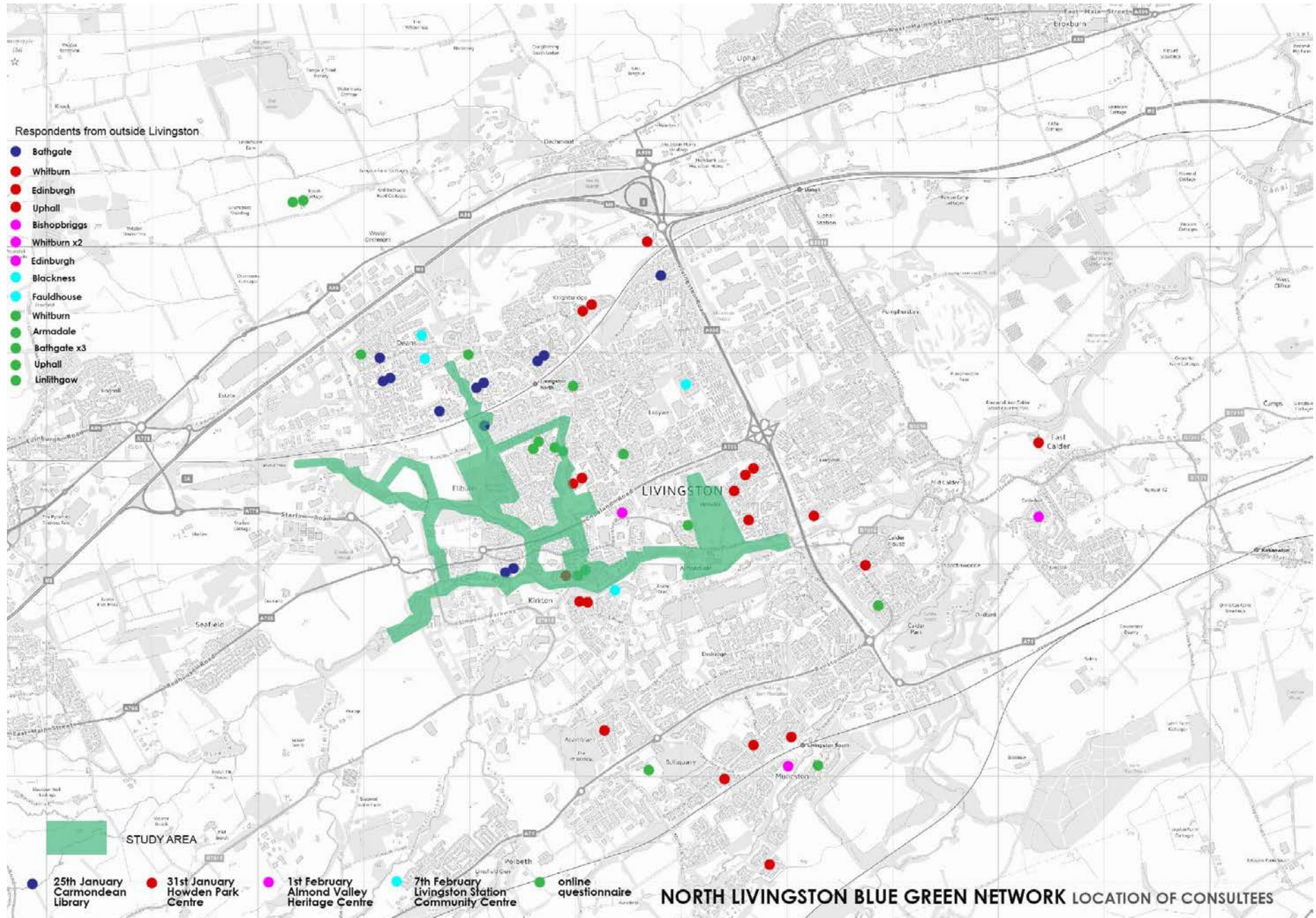
11	Waterway Issues - Concern that runoff from new developments will affect water quality (in Eliburn Reservoir) and damage wildlife - Like the idea of waterways being cleared so they catch rubbish, pollutants before they get to Eliburn Reservoir							1	1
Total								1	1
									2
12	Importance of events - There used to be a Gala Day at Howden Park, brought people to the park and brought different Livingston Communities together								1
Total									1

Quotes I have walked, run and competed in 34 countries worldwide but Livingston beats anything of its kind.
The path network is a wonderful, traffic-free, resource for leisure cyclists and, as such, is really helpful in the "Livi 20-Milers" pursuit of encouraging people to get cycling again.
Very extensive network; some beautiful, quiet green spaces; good routes in theory (e.g. Nell Burn Path, Railway Path, Dean Path, Loan Path) but in practice, these really only exist on a map, not on the ground (as don't feel like connected and consistent routes on the ground)
You may wish to read these comments knowing that I was Head of the Landscape Architects section at the Livingston Development Corporation, what bias that entails I will let you guess. People usual do not know that the LDC did not have a brief to provide "parks" and recreational facilities. The little that were provided were because the Council did not provide any (for various reason). All the greenways were therefore created simply to provide woodland structure and basic footpath linkages. They were meant to be supplemented with all the other usual ingredients by the Council. What I am saying is that the greenways are all incomplete and really require a exercise like the Blue Green Network Survey, but looking at them more as a total design exercise, not just an improvement.

References to consider
Cycle Streets Photo Map - Sustrans
Spokes map for Livingston
Edinburgh cycle tube map a good example
walk It.com
Quiet routes in Edinburgh well signed on lamp posts, bridges and off streets signed http://www.edinburgh.gov.uk/info/20087/cycling_and_walking/1475/explore_quietroutes
Ramblers Association Medal routes app
WLC Public arts walks maps
need good green corridor along the Almond River, Gavieside, West Livingston expansion must leave enough space for corridor

Contacts to follow up
contact YAP Youth Action Project Helen manager
contact Dr Robin Chesters rac@almondvalley.co.uk
contact Access Forum for disabled users

Map Showing Home Location for Consultation Event Attendees and Questionnaire Respondents



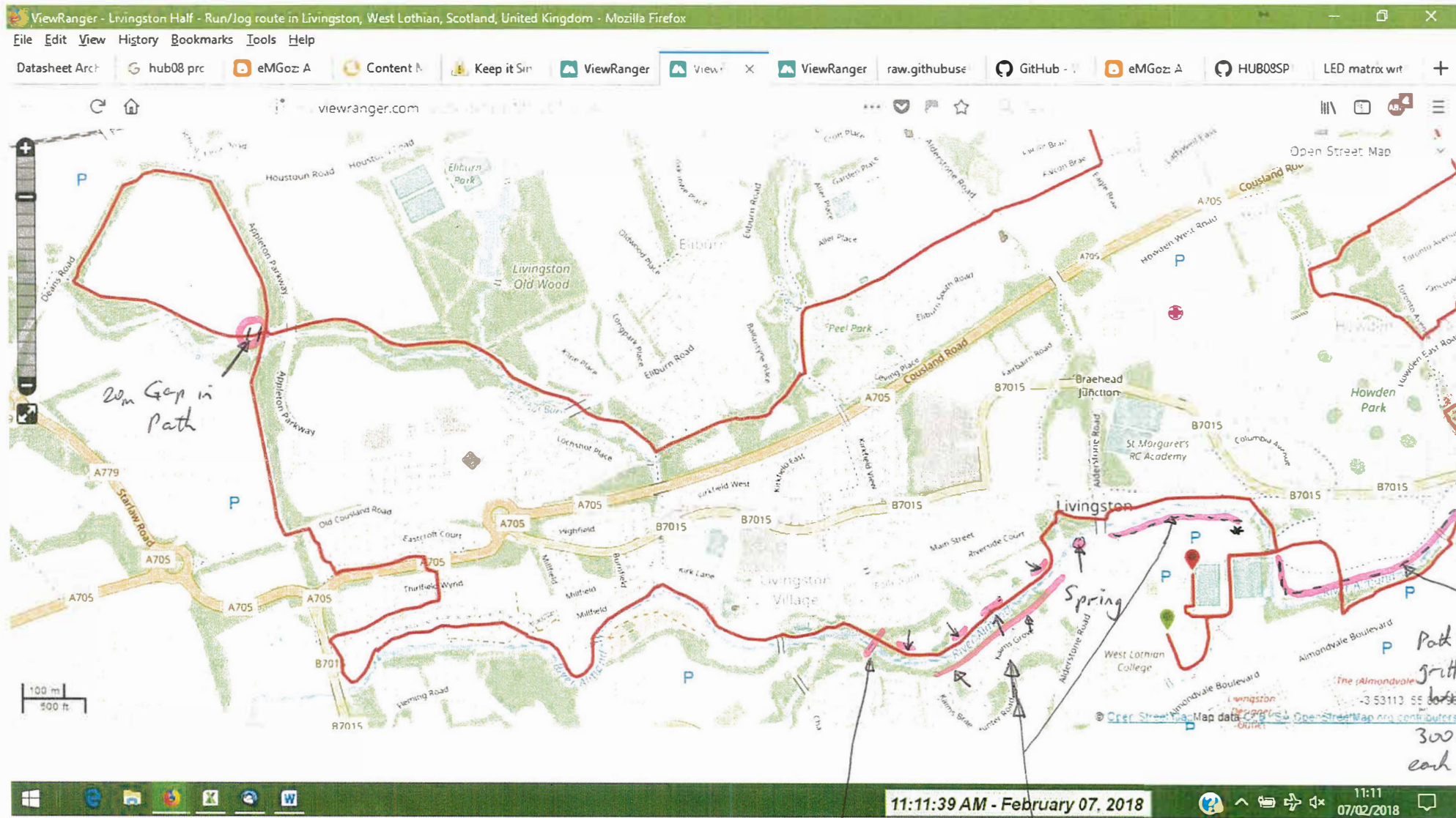
Site Specific Comments Including Park Run Map

The comments below have been collated from the responses to the online questionnaire identifying specific locations where opportunities or issues exist:

- The splendid 5k route from Dechmont Law park on both sides of the M8 needs attention to drainage in a few places.
- The Railway Path North needs a short continuation westwards to the Schoolhouse Road Bridge
- The path to the West of Buchanan Crescent needs to be upgraded to tarmac as should the path linking Peel Park to Housepark Place.
- The underpass at Ballantyne Place to Cornfield Place floods regularly.
- The underpass at Lady Place and the one Jackson Place tend to get heavy silt deposits after heavy rain.
- there needs to be signage at Livingston Village to that people walking from the North on Follyburn Path can link into Livingston Village Park, it is not intuitive.
- Put in a path at Simpson Parkway to the South Side of the River Almond so that it give access to that side of the river.
- very extensive network; some beautiful, quiet green spaces; good routes in theory (e.g. Nell Burn Path, Railway Path, Dean Path, Loan Path) but in practice, these really only exist on a map, not on the ground (as don't feel like connected and consistent routes on the ground)
- There are little missing links (e.g. approximately 4-5 metres of muddy track to reach an asphalt surface that could usefully short-circuit part of NCN75 between Appleton Parkway and Deans Road (it would also be a gentler slope and faster for commuters).
- While it is not included in the masterplan area, the Alderstone Path has several examples of these issues along its length.
- I would like to see the shrubby vegetation thinned on the east side of St John's path to open the views into and from the path into Howden Park and make the path feel safer.
- There are a couple of spots on the Folly Burn path through Peel Park where ponding causes extreme icy conditions which make the path very dangerous and actually impassable for the elderly.

Park Run Map showing a mark up of areas to be upgraded on the route by the Park Run organiser

map drawn by Ted Finch



20m Gap in Path

Rubber by Car Park

Main Path is not gritted in winter
300 users each weekend

Foot Bridge holds water

Path holds water. (both side of river)

Bridge traps run off + silt

These paths carry >300 people on Saturday. 5-600 people per week

Survey Monkey Results

North Livingston Blue Green Network Survey

1. Q1 - How often do you use the path network in North Livingston?

Number of participants: 32

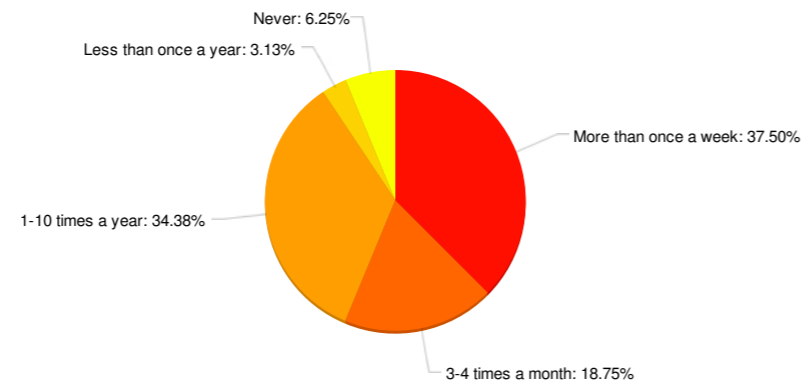
12 (37.5%): More than once a week

6 (18.8%): 3-4 times a month

11 (34.4%): 1-10 times a year

1 (3.1%): Less than once a year

2 (6.3%): Never



2. Q2 - If you never use the path network, please tell us why / what puts you off using it?

Number of participants: 4

- Drunken & drugged teenagers
- Currently I have no real need to as I used to cycle commute occasionally across North Livingston but now I work somewhere else. One of the concerns I had about using this path network however was personal security (some parts feel very remote with not a lot of people around e.g. the Nell Burn Path); and getting lost as parts are not well signed and go through residential areas where it is easy to get lost (I got lost several times in the past trying to cycle north from the centre towards Uphall and/or A89).
- I currently volunteer along with others from west Lothian angling club around Eliburn reservoir and maintain the water to its full potential.
- Rather enclosed and can be dark in some area. Some areas are secluded during less busy times - lone walkers can feel vulnerable.

3. Q3 If you use the path network, what do you use it for?

Number of participants: 30

17 (56.7%): Leisure

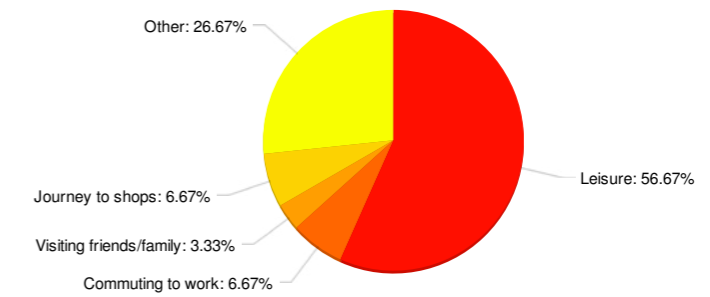
2 (6.7%): Commuting to work

1 (3.3%): Visiting friends/family

- (0.0%): Journey to school

2 (6.7%): Journey to shops

8 (26.7%): Other



Answer(s) from the additional field:

- work business
- Leisure and Organising off-road runs and races
- Work
- Travel to meetings
- Walking dog
- All of above
- Cycling
- The only one I don't use it for is journey to school. Doesn't seem to let you have more than one choice though

4. Q4 - Please list what you like about the network including any comments about the paths, woodlands, trees, greenspaces, rivers and burns

Number of participants: 17

- Walking or cycling access with minimal road traffic
- I like the fact that the paths are surrounded by woodland so that you can enjoy a walk in attractive surroundings even though you are in a town. There are often interesting birds around. The mixture of woodland, streams and open spaces is very attractive
- There is very little construction/housing works on these green corridors that run through the spine of Livingston. They have a wide selection of trees and shrubs and you really don't feel like your in the middle of a large town.
- An outstandingly beautiful network of paths encourages healthu exercise.

Within an urban environment it created an atmosphere of beautiful countryside.

I have walked, run and competed in 34 countries worldwide but Livingston beats anything of its kind.

- Generally good path conditions for walking and cycling. The extent of the network of paths is exceptional allowing a wide variety of leisure outings.
- Safe cycling away from traffic. Love the woodland areas. Cycle paths are well maintained, though can become overgrown, thus forcing walkers and cyclists to use a narrower area.
- The network is relatively enclosed in many parts, thus shielding the user from building, creating the illusion of being in the countryside.
- The path network is a wonderful, traffic-free, resource for leisure cyclists and, as such, is really helpful in the "Livi 20-Milers" pursuit of encouraging people to get cycling again.
- The network has a nice mix of greenspace, which is generally fairly well overlooked by housing or adjacent roads. The legacy of the Livingston Development Corporation and the ability to legally cycle on any path in Livingston (with specific exemptions at some bridges) means that it is easy to get around Livingston by bike, provided you can cope with the hills.
- Very extensive network; some beautiful, quiet green spaces; good routes in theory (e.g. Nell Burn Path, Railway Path, Dean Path, Loan Path) but in practice, these really only exist on a map, not on the ground (as don't feel like connected and consistent routes on the ground)
- I like the sound of the waterways being cleared further back from eliburn reservoir, it will catch some of the rubbish, chemicals and allsorts before hits the reservoir.
- Very pleasant surroundings, river, trees, the variety of changing landscapes, wooded areas, reservoir all wonderful countryside with natural beauty.
- the path network is really good, as it allows people to walk away from busy traffic and there are some lovely spaces where you can spot wildlife
- The areas are beautiful -semi rural. Generally clean and well kempt.
- The paths on the whole are a good network linking various areas of Livingston North, it is good that they are mainly away from traffic. It facilitates easy access to the wooded areas of Livingston North where there is a lot of wildlife to see and enjoy.
- It gets you away from just walking in streets and it's a chance to see some wildlife. It's nice to see the changing seasons
- Gives you a lovely walks away from traffic. You feel as though you are in the country, not in a town. You can see a good range of wild life and birds Can also offer good short cuts

5. Q5 - Please list any problems or issues with the network, including any comments about the paths, woodlands, trees, greenspaces, rivers and burns

Number of participants: 18

- Broken Buckfast bottles.
- In some places the surface of paths is poor. The path in the woods between St Margarets School and the river is very

muddy and slippery at times. I welcome the proposal to improve this. In places the undergrowth encroaches over the paths.

South of the river Almond to the West of the underpass under Alderstane Road there is a place where a stream flows over the path creating a deep muddy puddle or an area of ice.

- The footpaths are flooded in some locations and really could do with being resurfaced.
- Sections of the path system from and around Dechmont Law Country Park are the responsibility of WLC, Woodland Trust and Deer Park Golf Club. Whilst WLC was installing more benches and tables, Woodland Trust was removing them "Because they attract vandals. Surely the authorities should meet and agree a common policy.

Most dog-walkers behave responsibly. Some do not have seen 3 separate Commercial Dog Walker's vans parked in the Dechmont Law Car Park at the same time. I counted 8 or more dogs from each. This should not be allowed,

- Occasional boggy paths can be a problem Signing of paths could be better
- Paths can be overgrown at times. This is an issue when walkers and cyclists are pushed into a narrower path. Broken glass can be an issue in some areas. This is damaging to cycles but even more so to dogs
- Poor path signage, paths dark and uninviting due to too much covering foliage, poor surfaces, not maintained. Good greenspaces.
- Maintenance and path quality is inconsistent. signage is minimal.
- There are parts of the network that do not have asphalt surfaces (that are better for those with physical disabilities).

There are little missing links (e.g. approximately 4-5 metres of muddy track to reach an asphalt surface that could usefully short-circuit part of NCN75 between Appleton Parkway and Deans Road (it would also be a gentler slope and faster for commuters).

- In some places the existing network passes into areas that feel less safe due to underpasses, planting at path edges and general alignment of paths which occasionally prevents seeing clearly what's up ahead. While it is not included in the masterplan area, the Alderstone Path has several examples of these issues along its length.
- Some parts of the off-road path network are not well signed and confusing (I have gotten lost); some parts are remote and feel a little threatening and dark; as some directional signage or lack of is a bit confusing, I worry about ending up having to walk or cycle on a busy dual road as I can't find any other route; not well maintained and often covered with broken glass; underpasses feel dark and threatening and I'd rather go over to avoid some of them; surface condition of some paths in parks and by river are not good; some routes involve crossing roads with busy traffic and no consistent approach to dropped kerbs. Overall, low awareness of the extensive path network Livingston has. Convolution path network which makes it difficult to properly use it for cycle commuting, as not the most direct route, sharp corners and shared with pedestrians.
- The amount of junk that gets dumped into the burn that enters Eliburn reservoir, several times I have to phone SEPA regarding what is entering. Need more buckets around the reservoir and signs for picking up after their dog. Two picnic benches at anglers car park are only used for teenagers underage drinking, leaving mess and causing disruption. New developments I hope the runoff won't be running into the reservoir damaging bird, fish and wildlife habitat. Designated paths for cyclists should be incorporated rather than sharing with public as eliburn reservoir gets very busy in summer and just an accident waiting to happen.
- Can be muddy due to such wet weather. Puts you off as dogs get so dirty. Cycling the paths can be slippery or muddy.
- sometimes I get lost if I'm in a new neighbourhood - the signage can be confusing at times. Some areas are a bit too isolated, I wouldn't go there in the dark Sometimes there can be lots of litter and shopping trollies in the wooded areas and the burns.
- Areas can naturally become muddy and slippery in bad weather. Vegetation a little overgrown
- Many of the paths could be improved by cutting down overgrowing vegetation, many of the paths are subjected to flooding and silt.
- Some paths need resurfaced. If you don't know the area you are walking in you have to watch out for signs that have been swung round the wrong way and some are just old and hard to read.
- Litter is a major, major problem. Never known it as bad as it has been over the past year!! If I am using some of the paths, even ones very close to housing, I don't always feel safe. If I am doing a walk, I always go with a friend.

8. Q8 - Please look at the draft masterplan and let us know what you think of these initial ideas from the landscape architect - are they generally along the right lines? What other ideas and changes would you like to see incorporated?

Number of participants: 14

- Were concrete channels not made to minimise flooding risk.
- These ideas are along the right lines.
- Looks good to me :-)
- I am computer illiterate and don't know how to go to the masterplan without losing this questionnaire.

- I will send this, go back to the masterplan and return if appropriate
- Look like good improvements. Certainly identified areas of poor paths for improvement.
- Masterplan is good and covers the areas of concern except the width of the path. I recognise that this is a difficult one to address in general.
- Looks good, some more cutting back of foliage and lighting needed
- The initial ideas look good.
- The draft masterplan shows some interesting elements and I welcome more diverse uses within the green network. However, there are a number of development sites marked out within and adjacent to the green network with no obvious links to and through sites shown. Green networks have an important role to play in placemaking for new developments and it is important that these links and relationships are clearly shown at all stages of planning. Linking these developments to stations and other amenities via the green network should also play a role in reducing the number of short journeys made by car in Livingston.
- I value the council working on this - but the map in the masterplan is appalling. I can't figure out where the proposals are as there are no placenames, streetnames etc, From what I can see, it looks like it really only addresses a few bits and pieces here and there, as opposed to looking at it all as a complete network.
- Looks interesting, hard to tell
From a map what the proposed changes will actually do but any improvements welcome.
- very good that things are being looked at. It is a valuable resource that Bathgate doesn't have.
It would be nice to have a few more public seats about too.
wildflowers and spring bulbs
- The draft master plan looks good but there needs to be signage at Livingston Village to that people walking from the North on Follyburn Path can link into Livingston Village Park, it is not intuitive. Put in a path at Simpson Parkway to the South Side of the River Almond so that it gives access to that side of the river.
- The plans look good, it's great that this work is being done. Maybe better signage and some information about points of interest would be good

9. Q9 - Please let us know your postcode, so we can see roughly where participants are from *

Number of participants: 20

- EH54 6TB
- No
- EH47 8RX
- EH48 3QT
- EH54 8NQ
- EH48 4JT
- EH48 4JT
- EH530SJ
- EH48 2EP
- EH54 9AR
- EH52 5SQ
- Is
- EH49
- eh549lb
- EH546UW
- EH48 1DF
- EH54 6TB
- EH54 6RG
- EH54 6RG
- EH548JT

10. Q10 - If you'd like to be kept informed or further involved, please tick the box(es) that apply below and share your contact details with us. These will be held by West Lothian Council and will be used to contact you only about the Livingston North Blue-Green Network.

Number of participants: 13

12 (92.3%): I would like to be kept informed about developments on the Livingston North Blue-Green Network

7 (53.8%): I would like to be involved in practical work to improve the network



6. Q6 - How do you find your way around the network?

Number of participants: 18

- With difficulty if trying new routes
- Initially by using a map.
- I have local knowledge of all the Greeways having worked on them while employed by Livingston Development Corporation
- My wife and I have lived in north Linmston for nearly 40 years. My wife (aged 82. Walks for an hour daily. I am aged 84. I am a map fanatic and I used to run daily. Now I organise regular training sessions, especially for youngsters, as well as competitions. I draw maps in this connection.
- Online maps before and GPS when out on the network
- Map my ride / local signage
- Local knowledge, trial and error.
- GIS
- Local knowledge.

SPOKES West Lothian map (2012 but being revised at present with a view to an updated version being released in 2018).

Harvey's "Livingston for cyclists" map (1998)

- My travel is generally for work and to the same location so finding my way around isn't too difficult. If I have to go somewhere else I do at times find it more difficult as the signage can be patchy and different styles of sign are in use. In places, a route will start with signage but it then dwindles and you find yourself navigating by smartphone. If all goes wrong I tend to head downhill as I know I'll find the River Almond and I'll be able to re-find my route from there.
- On the ground signage to an extent, but mainly using a map on my mobile like Cyclestreets, Open Cycle Map. Don't think the SPOKES map is that good for detailed route finding, and when you're on a path in Livingston, you still don't often know where you are as you can't see the road or street signs from the path (street signs are a normal way of navigating as a car user and even as a pedestrian on footways).
- using signs
- I just go where I fancy and take different routes depending on time and mood
- trial and error sometimes and trying to remember from the past time I was there. Sometimes I have someone with me who knows the area better than me.
- Not straightforward. Pathways steer away from a direct route - often time consuming when using for purposes other than leisure. Signage not always visible.
- I know the area, but have walked most of the paths so I am familiar with them, where signage exists it is normally pointing the wrong way because vandals have adjusted them.
- I know my own area pretty well. Other wise it's just point myself in the direction I want to go and hope the signs are ok.
- It has been trial and error over many years. Signs aren't always clear or facing the right way. It would be great to have a map with all the pathways marked up.

7. Q7 - Please list any improvements you would like to see to the network

Number of participants: 18

- Better signage showing ultimate destinations.
- Improving the surface of some muddy sections.
- Tidying up encroaching foliage.
- Extending the path network westwards.
- Footpaths
- Signage
- Seats
- Litter bins
- Woodland and shrub management

- Improve drainage
- The splendid 5k route from Dechmont Law park on both sides of the M8 needs attention to drainage in a few places. The Railway Path North needs a short continuation westwards to the Schoolhouse Road Bridge
- More signs to allow paths to be linked.
- More use of suggested routes with difficulty and distance shown
- Wider paths. Sometimes, people walk abreast, especially when pushing baby buggies. This can mean that cyclists have to stop and wait for the walkers to pass, or it can be difficult to attract the attention of walkers when coming up behind them. It would be useful to have more signs indicating that the path is a shared amenity between walkers and cyclists, therefore don't be surprised to see cyclists on the path.
- There needs to be more obvious signage through housing areas. I have been lost for a while because the path was unclear in Ladywell.
- Better signage, possibly similar to Edinburgh to Edinburgh Quiet Routes signage

http://www.edinburgh.gov.uk/info/20087/cycling_and_walking/1475/explore_quietroutes

- Where practical concentrate any new recreation features including seating etc around new development sites or existing parks. This will facilitate the inclusion of sections of the network into future open space development associated with the housing developments. This will also allow for some long term maintenance from existing Grounds Maintenance resource. Ensure maintenance is considered and identified for minimum 10 years for any new features constructed as part of network. Ensure Core Path plan priorities are addressed where there is overlap with the network and budget allows.
- Ensure that path surfaces are at least as good as asphalt.

Ensure that any constrictions (to deter motorcycle access) are wide enough for wheelchair, tandem cycles and recumbent trikes to negotiate without dismount.

Install art-works along the routes.

- I would like to see better, more coherent signage, particularly to key destinations such as the railway stations, hospital, Civic Centre, etc. Clear signage outwards to surrounding settlements such as Mid Calder and Dechmont would also be useful.
- Much better signage with clearer branding of routes; segregated cycle routes, even just wide paths separated with ground markings, to make it clear that people on bikes and pedestrians should stay on separate bits of the path to avoid conflict; investment in cycle routes to make them proper cycle routes, to take them away from sharp bends in residential areas and narrow paths that are just not suitable for cycling for commuting purposes anyhow (though great for kids on bikes etc). More consistent approach to dropped kerbs. Removing bollards that narrow the entrance to paths excessively and make it difficult for people in wheelchairs, with buggies, kids on scooters, people with wider bikes.
- The amount of junk that gets dumped into the burn that enters Eliburn reservoir, several times I have to phone SEPA regarding what is entering. Need more buckets around the reservoir and signs for picking up after their dog. Two picnic benches at anglers car park are only used for teenagers underage drinking, leaving mess and causing disruption.
- New developments I hope the run off won't be running into the reservoir damaging bird, fish and wildlife habitat.
- More dog waste bins. Cameras to catch people not picking up their dog poo. Also to try tackle litter. And this would help safety also.
- Maybe a few dog poo designated areas to help with dog poo.
- Better signage please. Less litter.
- remove old tree tubes/guards from trees that no longer need them - very unsightly and damage the trees in the long run too,
- Anything within reason that would make a lone walker feel safer.
- The path to the West of Buchanan Crescent needs to be upgraded to tarmac as should the path linking Peel Park to Housepark Place. The underpass at Ballantyne Place to Cornfield Place floods regularly. The underpass at Lady Place and the one Jackson Place tend to get heavy silt deposits after heavy rain. Proper vandal proof signage would certainly improve the experience
- Better signage, better drainage and cutting back overgrown bits. It would be nice to have a way of finding out about points of interest in different areas.
- More bins, more maps

Question 8 Comments on the draft Masterplan

Online Questionnaire

Q8 Please look at the draft masterplan and let us know what you think of these initial ideas from the landscape architect - are they generally along the right lines? What other ideas and changes would you like to see incorporated?

Number of participants: 18

Comment	No of times mentioned
It looks good, along right lines	13
the map in the masterplan is appalling	1
It would be nice to have a few more public seats about too.	1
wildflowers and spring bulbs	1
better signage and some information about points of interest would be good	1
Were concrete channels not made to minimise flooding risk.	1

Quotes The draft masterplan shows some interesting elements and I welcome more diverse uses within the green network. However, there are a number of development sites marked out within and adjacent to the green network with no obvious links to and through sites shown. Green networks have an important role to play in placemaking for new developments and it is important that these links and relationships are clearly shown at all stages of planning. Linking these developments to stations and other amenities via the green network should also play a role in reducing the number of short journeys made by car in Livingston.

I value the council working on this - but the map in the masterplan is appalling. I can't figure out where the proposals are as there are no place names, street names etc, From what I can see, it looks like it really only addresses a few bits and pieces here and there, as opposed to looking at it all as a complete network.

Yes, generally has the right ideas but lacks detail.

Generally like all the ideas. On the woodland masterplan I cannot relate the text bubbles to specific site. I m not sure about "markers". There is a fine balance between giving people a sense of place and orientation and what looks like a useless piece of unnecessary "artwork". Same comment about the artwork suggestions. Are for improvement by tennis courts in Livingston Village: This area of road is a deceivingly complex and dangerous area - it is the "safe route to school" which means children walk up and down it in the middle of the road, mixing with cars whose satnavs have misdirected them and cyclists dreaming about the Tour de France speeding both ways at excessive speed. Perhaps as well as a general improvement as indicated there could be some design elements to help solve this problem. So much for the £20,000 budget!