

ROYAL CANAL GREENWAY CYCLE AND PEDESTRIAN ROUTE PHASE 4 - PHIBSBOROUGH TO ASHTOWN

Amending Part VIII Report



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Royal Canal Greenway Cycle and Pedestrian Route Phase 4 – Phibsborough to Ashtown

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1. INTRODUCTION

This report has been prepared to support the Amending Part VIII application for The Royal Canal Greenway Cycling and Pedestrian Route between Phibsborough in Dublin 7 and Ashtown in Dublin 15 as previously granted under planning reference number of the existing Part 8 in place: 2870/15. This amending Part VIII alters the earlier approved scheme by removing the need to acquire lands outside the canal corridor and instead achieving the required northern bank towpath widening by reconfiguring the canal channel.

The Royal Canal Greenway Cycle and Pedestrian Route Phase 4 scheme commences at Cross Guns Bridge on Phibsborough Road continuing along the Royal Canal to the Village Centre at Ashtown and is approximately 4.2km in length. This amending Part VIII proposes that the northern bank of the canal channel will be realigned at 3 locations along the length of the scheme, west of Lock 6 for approximately 600m, west of Broombridge for approximately 345m, and west of Lock 8 for approximately 85m.

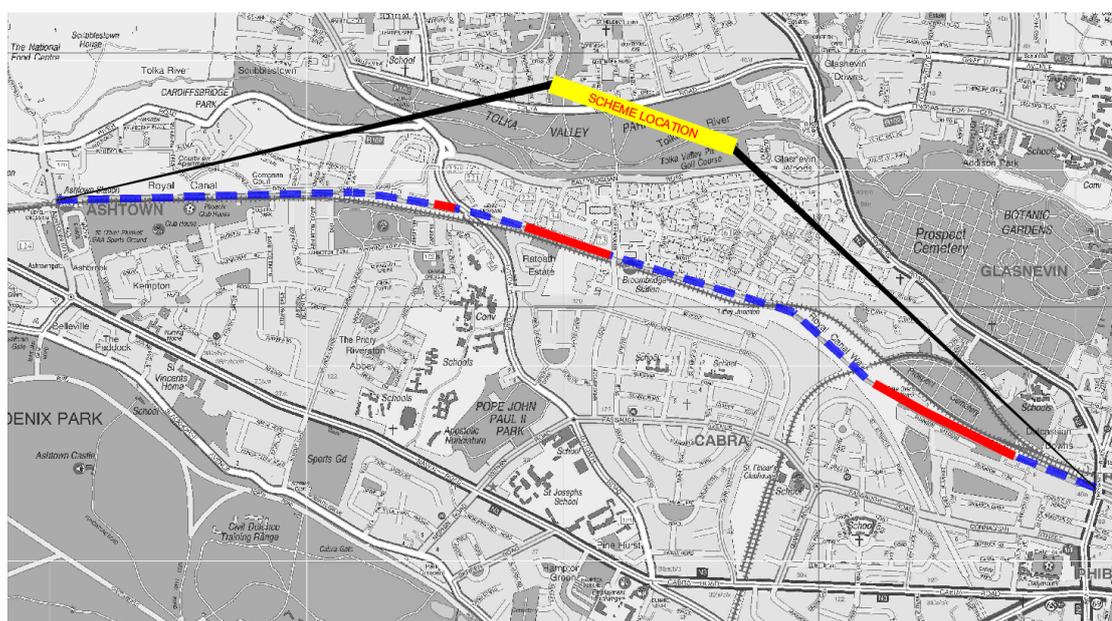


Figure 1 Scheme Location and Canal Reconfiguration Locations

The primary objective of the scheme is to provide a premium quality cycle and pedestrian facility with environmental enhancements to encourage and promote cycling and walking in the Dublin region

Secondary objectives for the scheme are as follows:

- Improve the Royal Canal corridor as a recreational cycle and pedestrian facility.
- Improve the Royal Canal corridor as an ecological and biodiversity zone.
- Improve connectivity between the Royal Canal corridor and adjacent public transport infrastructure.
- Improve inter-connectivity between the Royal Canal corridor and adjacent (existing and proposed) residential neighbourhoods.
- Improve facilities for vehicular access to and from the Coke Oven Cottages
- Increase and promote the amenity value of the Royal Canal corridor resource.

- Increase and promote the historical and heritage value of the Royal Canal corridor resource.
- Increase the accessibility of the Royal Canal corridor resource to all users.

The earlier Part VIII approval covers the development of the full 4.2km scheme from Phibsborough to Ashtown. The earlier application includes widening the path to 4.5m through land acquisition to overcome the various pinch points along the scheme. The greenway will be shared by cyclists, pedestrians, and access vehicles from the start of the scheme at Cross Gun's Bridge to just east of the Maynooth Line Railway bridge. The underpass through the Maynooth Railway line will be upgraded to provide greater clearance laterally and vertically for shared use by cyclists and pedestrians only. The path is then segregated through delineation west of the upgrade of the underpass as far as Ashtown. The development will also include new and upgraded public lighting facilities, the provision of CCTV, and signage.

The earlier Part VIII application allows for the greenway to be constructed in two phases. The first would be the construction of the greenway in areas where land is already available. The second phase would be completed after land is acquired, in areas where widening is needed. This amending Part VIII will remove the requirement for land acquisition and instead proposes widening the existing towpath by realigning the norther bank of the canal channel.

2. SITE LOCATION AND DESCRIPTION

The site is located along the northern bank of the Royal Canal between Phibsborough and Ashtown, and the proposed canal channel reconfiguration is proposed at three discrete locations. The proposed realignment of the northern bank of the canal channel has the support of Waterways Ireland as owners of the facility, with the stipulation that at least a 10m (at the surface) and 5m (at the canal base) wide navigable channel is maintained within the canal, to facilitate two 4m wide barges to pass with sufficient clearance, and that the canal channel is dredged where realignment is taking place as part of the works.

It is proposed to widen the towpath by realigning the northern bank of the canal at the following three locations to overcome the need for third party land acquisition:

1. West of Lock 6 for approximately 600m, realigning by up to 2.15m
2. West of Broombridge for approximately 345m, realigning by up to 1.4m
3. West of Lock 8 for approximately 85m, realigning by up to 1.75m

2.1 Section 1 West of Lock 6

This section of the proposed towpath widening commences just west of Lock 6, extends along the length of the existing stone (Calp) wall, and tapering back to follow the existing embankment approximately 70m west of the Coke Oven Cottages. This section of the Greenway is shared with vehicles for access by various users, including but not limited to the residents of Coke Oven Cottages, users of the allotment gardens near Lock 7, Waterways Ireland and Iarnród Éireann maintenance vehicles, and various service vehicles associated with the Coke Oven Cottages. The former lock keeper's cottage has also been repurposed for use by the Cabra Kayak Club, and therefore there is also significant activity within the canal and along the towpath by youths and members of the club at Lock 6.



Figure 2 View of the Towpath West after Lock 6

The existing towpath / access road along this section is narrow at only 3.4m wide, and the residents of Coke Oven Cottages have highlighted various incidents with users of the towpath. The level of activity along this section of the canal towpath is continually increasing due to its increased popularity and use by cyclists and pedestrians as a commuter and amenity route. There are local concerns that this will give rise to an increased likelihood of incidents between all users in future since the path is too narrow for the competing user demands that arise.



Figure 3 View of access to Coke Oven Cottages looking West

The existing Calp Wall has a single indent to allow the safe passing of a vehicle and a pedestrian or cyclist. The path in this section is 3.4m along the length to the Coke Oven Cottages. The path outside the Coke Oven Cottages is predominantly 3.2m with local widened points at 3.7m. Beyond the Coke Oven Cottages to the west, the existing path narrows further to 2.7m wide.

The current width of the path along this section of the route is insufficient to allow for the safe conveyance of the various activities between the residents, maintenance requirements and the greenway users.

2.2 Section 2 West of Broombridge

West of Broombridge, the level of the existing towpath is higher than the bounding industrial sites. The original planning approval envisaged the acquisition of lands from these sites by compulsory purchase order [CPO] to facilitate widening the existing towpath which is currently between 1.8-2m wide.



Figure 4 View of Towpath West of Broombridge (Google Maps)

A retaining wall structure would be required due to the level difference, with associated requirements to ensure no leakage would occur from the canal.

2.3 Section 3 West of Lock 8

This short section of proposed towpath widening is located along the boundary of Campbell's Garage commercial and residential premises. These premises are also located at a lower level than the canal towpath and would require a retaining structure.

The path in this location is approximately 2.8m wide with no scope to meaningfully widen the path towards the canal within the limits of the existing embankment



Figure 5 View East at Campbell's Garage

3. PLANNING AND DEVELOPMENT CONTEXT

3.1 Need for the Development

The need for the proposed development is supported by the objectives of several national, regional, and local planning and development policies, including:

- National Planning Framework to 2040
- Draft National Investment Framework for Transport in Ireland 2021 (NIFTI)
- National Cycle Policy Framework 2009-2020
- National Transport Authority's (NTA) Greater Dublin Area (GDA) Cycle Network Plan (2013)
- National Transport Authority (NTA) Transport Strategy for Greater Dublin Area (GDA) 2016-2035
- Smarter Travel Policy – A Sustainable Transport Future (2009-2020)
- Regional Spatial and Economic Strategy 2019-2031 (RSES) Eastern & Midland regional Assembly (EMRA)
- Dublin City Development Plan 2022-2028
- Dublin City Council Climate Change Action Plan 2019-2024

National Planning Policy

2.1.1 National Planning Framework to 2040

Project Ireland 2040 is the Government's overarching policy for spatial planning and development in Ireland to 2040. It is comprised of two major policy documents, the *National Planning Framework to 2040* (NPF) and the *National Development Plan 2018 – 2027* (NDP). The NPF presents a broad national-level policy to guide strategic planning and development across Ireland, while the NDP sets out the 10-year public capital investment strategy required to support its implementation.

The NPF sets out ten National Strategic Outcomes (NSOs), “*a shared set of goals for every community across the country*” (p. 10). Among these are NSO No. 4, Sustainable Mobility, and NSO No. 7, Enhanced Amenity and Heritage. As stated in respect to Sustainability Mobility:

“Dublin and other cities and major urban areas are too heavily dependent on road and private, mainly car-based, transport, with the result that our roads are becoming more and more congested. The National Development Plan makes provision for investment in public transport and sustainable mobility solutions to progressively put in place a more sustainable alternative.” (p. 143)

The NPF aims to deliver this sustainable alternative by directing investment towards a number of public transport and transport infrastructure projects, including development of “*a comprehensive network of safe cycling routes in metropolitan areas*” (p. 143). More specifically, “*Delivery of the metropolitan cycle network set out in the Greater Dublin Area Cycle Network Plan*” is identified as a ‘key future growth enabler’ for Dublin City (p. 37). The need for enhanced cycling and pedestrian infrastructure is further emphasised in National Policy Objective (NPO) No. 27, to “*Ensure the integration of safe and convenient alternatives to car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments*” (p. 82).

In respect of NSO No. 7, Enhanced Amenity and Heritage, it is stated that:

“This [NSO] will ensure that our cities, towns and villages are attractive and can offer a good quality of life. It will require investment in well-designed public realm, which includes public spaces, parks and streets, as well as recreational infrastructure” (p. 15).

It is further stated under NSO No. 7 that the NPF recognises the *‘Implementation of planning and transport strategies for the five cities and other urban areas will be progressed with a major focus on improving walking and cycling routes, including continuous greenway networks and targeted measures to enhance permeability and connectivity’*. (p.139)

The National Planning Framework 2040 also sets out several relevant policy objectives related to the provision of walking and cycling infrastructure, which are as follows:

National Policy Objective 27: *Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages.* (p.163)

National Policy Objective 62: *Identify and strengthen the value of greenbelts and green spaces at a regional and city scale, to enable enhanced connectivity to wider strategic networks, prevent coalescence of settlements and to allow for the long-term strategic expansion of urban areas.* (p.167)

National Policy Objective 64: *Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car.* (p.167)

By proposing to improve the cycling and walking infrastructure along the canal towpath, the proposed development is aligned with the principles and objectives of the National Planning Framework 2040.

2.1.2 National Investment Framework for Transport in Ireland 2021 (NIFTI)

In December 2021, the Department of Transport published the National Investment Framework for Transport in Ireland (NIFTI). The Framework is being used by the Department for prioritising future investment in the transport network to support the delivery of the ten National Strategic Outcomes (NSOs) of the National Planning Framework.

As part of the future network analysis completed to support investment priorities, NIFTI identifies a number of key transport challenges. Key Transport Challenge 6, *‘Increasing sustainable mode share to reduce emissions and address urban congestion’*, recognises the importance of achieving a modal shift from private car and towards sustainable modes of transport to alleviate urban congestion and achieve Ireland’s climate change goals. It is further noted that investment in good quality cycling infrastructure has been a driver of modal shift elsewhere.

To address the transport challenges, NIFTI establishes four investment priorities namely:

1. Decarbonisation
2. Protection and Renewal

3. Mobility of People and Goods in Urban Areas, and
4. Enhanced Regional and Rural Connectivity

Projects must align with these priorities to be considered for funding. Moreover, as the NSOs are embedded in NIFTI, future investment made in accordance with the priorities will support the delivery of the National Planning Framework over the coming decades. The proposed premium cycle and pedestrian route along the Royal Canal Towpath is fully aligned with these priorities and is supported under the NIFTI.

2.1.3 National Cycling Policy Framework 2009 – 2020

The National Cycling Policy Framework sets out 19 objectives related to cycling. The objectives relevant to the proposed development are as follows:

- Support the planning, development and design of towns and cities in a cycling and pedestrian friendly way
- Ensure that the urban road infrastructure (with the exception of motorways) is designed/retrofitted so as to be cyclist-friendly and that traffic management measures are also cyclist friendly
- Ensure that all of the surfaces used by cyclists are maintained to a high standard and are well lit.

2.1.4 National Transport Authority’s (NTA) Greater Dublin Area (GDA) Cycle Network Plan (2013)

This plan sets out a proposed cycle network for the greater Dublin area, identifying primary radial routes, Greenways, minor Greenways (through parks etc), Secondary routes linking between primary routes and greenways, and other feeder routes. The proposed premium cycle and pedestrian route along the Royal Canal towpath is identified in this plan as a Greenway.

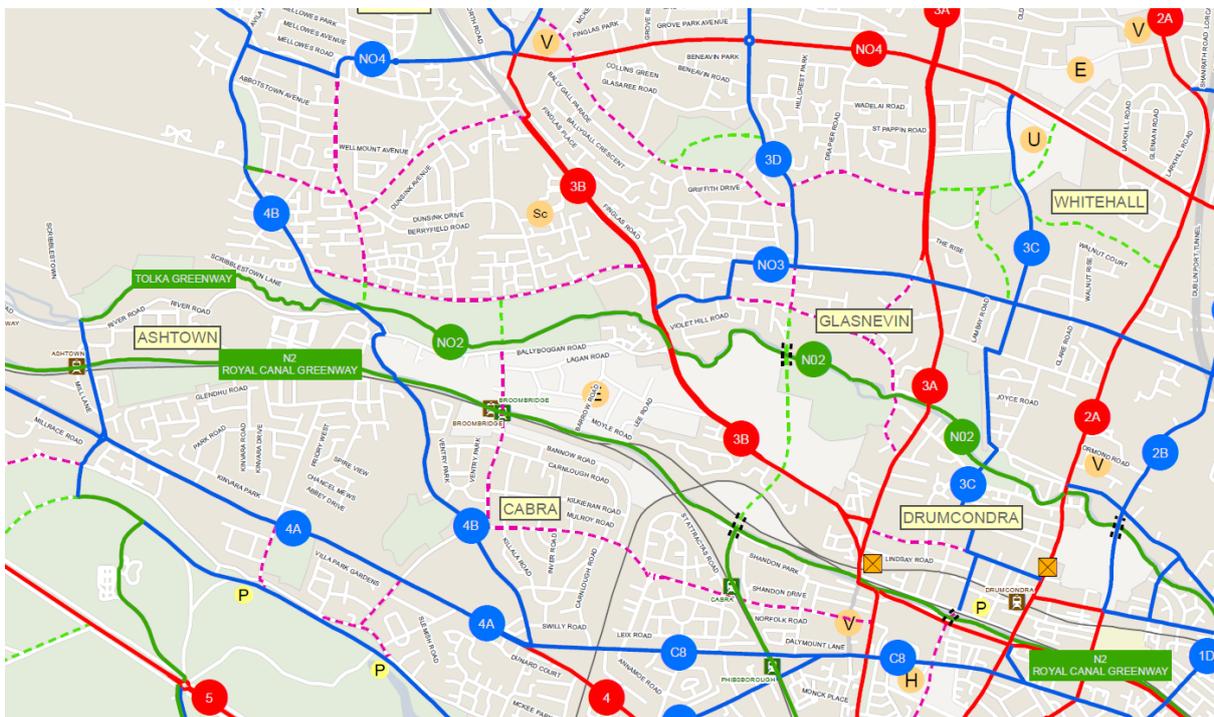


Figure 6 GDA Cycle Network Plan Extract

2.1.5 National Transport Authority (NTA) Draft Greater Dublin Area (GDA) Transport Strategy 2022-2042

The Draft Greater Dublin Area (GDA) Transport Strategy was published by the National Transport Authority (NTA) in 2021. The overall aim of this Transport Strategy is “*To provide a sustainable, accessible and effective transport system for the Greater Dublin Area which meets the region’s climate change requirements, serves the needs of urban and rural communities, and supports economic growth*”. The strategy provides a framework for the planning and delivery of transport infrastructure and services in the GDA.

2.1.6 Smarter Travel Policy – A Sustainable Transport Future 2009-2021

Smarter Travel – A Sustainable Transport Future presents a transport policy for Ireland to 2020. It presents a description of the baseline scenario in Ireland, in terms of transport and travel, at the time of publishing. It sets out a framework of goals, targets, and actions with a view to achieving a more sustainable transport future.

In relation to cycling, the policy document states the following:

“Our vision is to create a strong cycling culture in Ireland and ensure that all cities, towns, villages and rural areas will be cycling-friendly. Cycling will be a normal way to get about, especially for short trips. Next to walking, cycling will be the most popular means of getting to school, both for primary and secondary school. [...] A culture of cycling will be developed to the extent that, by 2020, we envisage around 160,000 people cycling for their daily commute, up from 35,000 in 2006. Cycling will be encouraged as a mode for other purposes so that by 2020 10% of all our trips will be by bike.”

This document outlines several actions, those which are of relevance to the proposed development are provided below in Table 2.1.

Table 2.1 Smarter Travel Policy - Actions

Ref.	
2	We will ensure better integration of land use planning and transport policies in the relevant planning guidelines as part of their ongoing review and we will avail of policy directives to give effect to specific measures needed to meet the vision for sustainable travel. The following will also be included in future planning guidelines: <ul style="list-style-type: none"> • Integration of cycling and public transport
4	The delivery of public transport, cycling and promotion of more sustainable travel patterns generally in many existing urban centres can only be achieved through retrofitting. We will require local authorities to prepare plans to retrofit areas towards creating sustainable neighbourhoods so that walking and cycling can be the best options for local trips, for example to reach local facilities such as shops and schools.
15	We will publish and implement a National Cycle Policy Framework to give effect to this vision. Among the issues it will address will be: <ul style="list-style-type: none"> • [...] • Investment in a national cycle network with urban networks given priority [...]
16	We will ensure that urban walking networks are strengthened by increasing opportunities for walking and removing constraints as part of planning for more attractive public realms, including: <ul style="list-style-type: none"> • Providing safe pedestrian routes

Ref.	
	<ul style="list-style-type: none"> • Providing routes, which serve employment and education trips and that link with public transport • [...]

2.1.7 Government Review of Sustainable Mobility Policy

The Government is expected to conclude its Review of Ireland’s sustainable mobility (active travel and public transport) policy early 2022, with a view to providing updated policy to replace the existing sectoral policy documents published in 2009 – *Smarter Travel: A Sustainable Transport Future 2009-2020* and the *National Cycle Policy Framework*.

Regional Planning Policy

2.1.8 Regional Spatial and Economic Strategy 2019-2031 (RSES) Eastern & Midland regional Assembly (EMRA)

The Eastern and Midland Regional Assembly Regional Spatial & Economic Strategy (RSES) 2019 – 2031 was published in June 2019. It presents a strategic plan for the development of the Eastern and Midland Region (which takes in Counties Dublin, Louth, Meath, Kildare, Wicklow, Longford, Westmeath, Offaly and Laois) to 2031. The vision of the RSES is as follows:

“To create a sustainable and competitive [Eastern and Midland] Region that supports the health and wellbeing of our people and places, from urban to rural, with access to quality housing, travel and employment opportunities for all.”

The Strategy sets out 16 Regional Strategic Outcomes (RSOs), including ‘Healthy Communities’, ‘Integrated Transport and Land Use’, and ‘Support the Transition to Low Carbon and Clean Energy’ – all of which are supported by the proposed development.

The RSES also sets out a number of Regional Policy Objectives (RPO). The RPOs relevant to the proposed development are set out below:

RPO 5.2: Support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned.

RPO 5.3: Future development in the Dublin Metropolitan Area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe attractive street environment for pedestrians and cyclists.

RPO 5.8: Support the promotion and development of greenway infrastructure and facilities in the Dublin metropolitan area and to support the expansion and connections between key strategic cycle routes and greenways as set out in the NTA Greater Dublin Area Cycle Network Plan’

RPO 9.10: In planning for the creation of healthy and attractive places, there is a need to provide alternatives to the car and to prioritise and promote cycling and walking in the design of streets and public spaces.

The proposed development supports each of the Regional Policy Objectives outlined above.

Local Planning Policy

2.1.9 Dublin City Development Plan 2022-2028

The draft Dublin City Development Plan 2022-2028 supports the development of greenway routes under the following objectives:

“CA2: To prioritise measures to address climate change by way of both effective mitigation and adaptation responses in accordance with available guidance and best practice”

“CA3: To support the transition to a low carbon, climate resilient city by seeking sustainable settlement patterns, urban forms and mobility in accordance with the National Planning Framework 2018 and the Regional Spatial and Economic Strategy 2019”

“CA28: To protect, connect, and expand the city’s Green Infrastructure while optimising the climate change adaptation and mitigation services it provides”

“SC2: To develop the City’s Character by developing a sustainable network of safe, clean, attractive streets, pedestrian routes and large pedestrian zones, lanes and cycleways in order to make the city more coherent and navigable...”

“SC13: To recognise and promote Green Infrastructure and landscape as a key mechanism to address climate change and as an integral part of the form and structure of the city, including streets and public spaces”

“SMT01: To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the development plan, in line with the city mode shares targets of 26% walking/cycling/micro mobility; 57% public transport (bus/rail/LUAS); and 17% private (car/van/HGV/motorcycle)

“SMT08: To improve existing cycleways and bicycle priority measures and cycle parking infrastructure throughout the city and villages, and to create protected cycle lanes, where feasible”

“GI06: To support the development of the following metropolitan greenways; Royal Canal”

“GI32: To develop linear parks, sustainable riverine access, walkways and cycleways and water focussed recreational, sporting and tourism amenities which enhance appreciation of rivers in a manner that ensures that any adverse environmental effects are avoided and ecological enhancements, where appropriate, are employed to ensure a net biodiversity gain.

The proposed development supports the objectives of the Local Authority as set out in the draft Dublin City Development Plan 2022-2028 by developing and improving the

condition of the existing pedestrian and cycle facilities along the Royal Canal, and creating a green infrastructure, sustainable travel network within Dublin City.

2.1.10 Dublin City Council Climate Change Action Plan (2019-2024)

Dublin City Council's Climate Change Action Plan outlines how the Council will improve energy efficiency and reduce greenhouse gas emissions in its own operations, while also making Dublin City more climate resilient.

This strategy prioritises walking, cycling and public transport, and minimises the need to use cars while supporting the retail core of the city. This document outlines a number of actions to be taken by DCC to improve climate resilience through sustainable transport initiatives. The following actions of DCC support the need for the proposed development:

T27: Develop a cycle action plan: 471km of possible network

T41: Implement policy to increase modal shift to cycling

4. CONSULTATION

As part of the design process, Dublin City Council contacted the residents of the Coke Oven Cottages, who made representations in relation to their access and servicing activities on the section of towpath between Cross Gun's Bridge and their cottages. The residents also cited concerns about the impacts of the proposed scheme on the character of the area.

Meetings with the residents of the Coke Oven Cottages took place on the following dates:

- December 3rd 2020, on site with Dublin City Council
- March 4th 2021, via Zoom with Dublin City Council and Roughan & O'Donovan designers
- March 23rd 2021, on site with Dublin City Council
- June 24th 2021, on site with Dublin City Council and Roughan & O'Donovan's ecologist.

There was and is ongoing engagement with the residents via phone conversations and through email in order to fully inform the design and address access issues to the properties as far as is possible. The consultation has resulted in a revised approach to the area between the Coke Oven Cottages and the sixth lock. The residents of the Coke Oven Cottages stressed the importance of the natural area behind the calp stone wall as an ecological corridor, and it was agreed, following an ecological assessment of the area and as part of the consultation with the residents, to protect any such habitats within. An initial proposal to set back the calp stone wall was subsequently revised and, with support from Waterways Ireland, the option of widening the towpath by realigning the northern bank of the canal was adopted.

Additionally, Dublin City Council, in conjunction with Roughan & O'Donovan, are conducting ongoing regular engagement with Waterways Ireland in relation to the design, licensing, construction details for realigning the northern bank of the canal, the dredging requirements and maintenance access requirements. The particulars of these requirements include the following:

- The design of the proposed canal channel reconfiguration complies with their requirements and standards whereby **the reconfigured channel at any point will have sufficient lateral and vertical clearance to convey two passing barges.**
- Dredging of the canal channel will be undertaken along the sections of the canal where such reconfiguration is to take place. **The dredging will be undertaken in accordance with Waterways Ireland approved specifications and methodology to protect the navigability of the canal and to protect the wildlife within.**
- A wildlife shelf shall be incorporated into the design of the new canal embankments to enhance the ecological benefits of the canal.

An agreement in relation to this design has been confirmed with Waterways Ireland as set out in the letter of consent.

5. EXTENT OF PROPOSED WORKS

5.1 Section 1 Lock 6 to Coke Oven Cottages

As described previously, this section of the towpath, which is shared between various users and activities, is generally 3.4m wide with a 3.2m pinch point at the Coke Oven Cottages. Given the various demands for access along the path, the cross section of the towpath along this section will vary as follows:

- From Lock 6 and along the length of the Calp Wall, the northern bank of the canal will be realigned by approximately 1.4m to provide a 1m canal side green verge and a 4.8m wide path and a 0.5m wide green verge on the land side.

The 4.8m wide path is the maximum road width permitted by the Design Manual for Urban Roads and Streets for a local street with shared use. This will permit two cars to pass at slow speed and will provide greater space for pedestrian and cycle users of the canal route. Asphalt with coloured stone chipping will be incorporated into the design for the shared towpath surface between the 5th Lock and Coke Oven Cottages.



Figure 7 Sample of Proposed Surface Treatment

- Outside the Coke Oven Cottages the residents requested measures to reduce the speed of cyclists to reduce risks to all users when their vehicles exit their driveways onto the towpath. A buff high friction surface, similar to the recently laid surface in Blackrock Park, will be laid on the section of path outside their properties. The northern bank of the canal channel will be realigned here by up to 2.4m to provide a 1.5m canal side verge, a 5.5m wide shared route / service vehicle parking area and a 0.5m green verge on the land side.

The widened path at 5.5m will accommodate services vehicles associated with the Coke Oven Cottages to park alongside the residences and allow cyclists and pedestrians to safely navigate around these vehicles.

- Beyond the Coke Oven Cottages to the west, the northern bank of the canal will be realigned by up to 1.2m to provide a constant verge width on approach to the Coke Oven Cottages. The path width just west of the cottages will narrow to 4.5m to be consistent with the approved design for the remainder of the greenway to Ashtown. Additional signage is proposed to also highlight the shared use nature of the towpath.
- The total length of canal channel to be reconfigured in this section is approximately 600m.

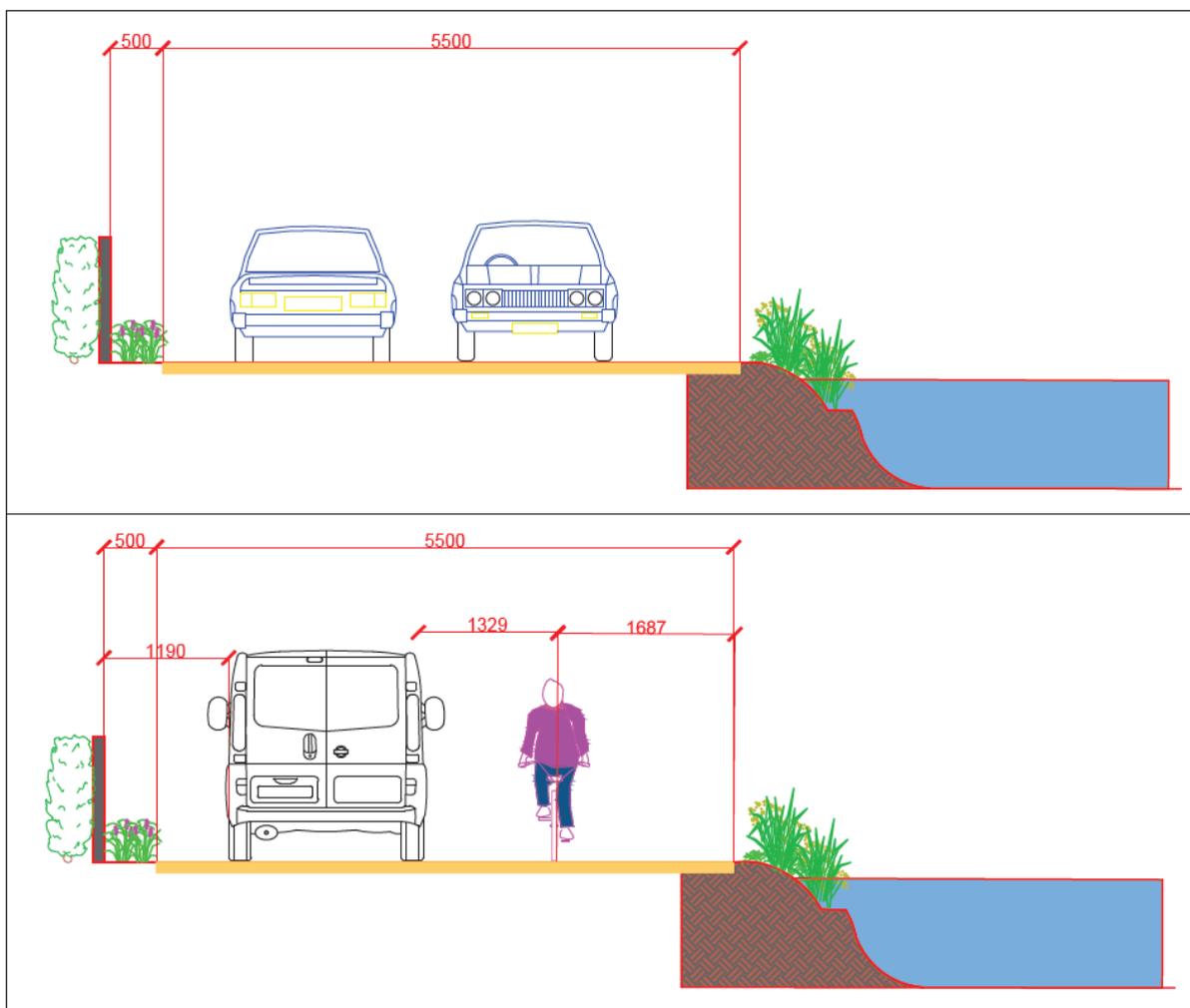


Figure 8 Indicative Sections of Proposed Greenway at Coke Oven Cottages

5.2 Section 2 West of Broombridge

This northern bank along this section of the canal channel will be realigned by up to 1.4m over 345m to facilitate the widening of the towpath from approximately 1.8m at

its narrowest to a 4.5m wide segregated greenway facility. A 0.5m wide verge strip will be provided at either side of the widened towpath.

5.3 Section 3 West of Lock 8

This is the shortest section of the proposed canal channel reconfiguration at approximately 85m. It is proposed to realign the northern bank of the canal channel by up to 1.75m to facilitate widening the towpath from its current width at approximately 2.85m to a 4.5m wide segregated walking and cycling facility. A 0.5m wide verge strip will be provided at either side of the widened towpath.

5.4 Method of Construction

The proposed reconstruction of the northern canal embankment, to facilitate the widening of the towpath at the above-described locations, will be carried out prior to any general towpath construction works. The proposed method of such reconstruction has been agreed with Waterways Ireland and will be as follows:

- Carefully remove existing planting and sod on the northern bank, and set aside to a designated wet bed area for re-use;
- Surplus silt material will be dredged from canal down to original lining (puddle clay in most instances) using tracked machines. This will most likely be done by dewatering the canal and dredging in the dry particularly where there is a potential or known risk of dredging contaminated materials
- Dewatering shall be achieved through the construction of temporary watertight dams or by opening the locks at the downstream end where possible. Where the dewatered section is not bounded by a downstream lock (for example where a bund is established) the canal will need to be dewatered by pumping.
- Electro fishing will be carried out prior to dewatering.
- Prepare ground for installation of additional fill material;
- Fill in northern side of canal with boulders and crushed stone to create the new embankment structure;
- Install new puddle clay and HDPE lining over this crushed stone;
- Install topsoil layer to the new embankment and reinstate planting from wet bed to integrate the Project into the area.

These works will be fully reversible, if ever there is a requirement to revert to the original embankment structure. The new material can be stripped back to the original lining material and the sod / planting reinstated once again.

The ability for the contractor to proceed with above works are predicated on a lack of Otter breeding activity within 50m of the works and an Otter derogation licence being in place. Mitigation measures as outlined in the associated Ecological Impact Assessment (EclA) report shall be put in place to reduce the impact to Otters while the canal is dry and works are ongoing. A programme of annual otter surveys has been commissioned to allow monitoring of their breeding habits,

All works will require protective measures in place to ensure no contamination of the Canal watercourse occurs. Usage of artificial lighting during the construction phase will be limited to the works areas to minimise impacts on biodiversity including bats and otter. Such lighting shall not be directed onto the canal at any point.

5.5 Energy Infrastructure Resilience

The ESB has committed to a significant programme of works to upgrade and augment the legacy network of oil filled high voltage electricity cables throughout Dublin City. New modern cables will be installed as environmentally superior replacements to the aging electricity infrastructure currently under the streets of Dublin. The replacement cables will be modern plastic insulated rather than fluid insulated cables with no risk of cable fluid leakage. The cable replacement programme will increase the resilience of the network, as well as accommodating the ever-increasing demand to accommodate new renewable energy sources and to serve new development. Making use of any new routes through the city – such as the Royal Canal Greenway – would reduce the impact of ESB's essential cable replacement programme on traffic disruption in Dublin City, and indeed much of the legacy network already follows the canals (including between Binns Bridge and Cross Guns Bridge on the Royal Canal. DCC understands the strategic importance of these future network enhancements and seeks to accommodate them where practicable.

It is proposed therefore to include ducting and associated chambers to ESB standard along the proposed Royal Canal Greenway project. This will future proof the project against disruption to the completed scheme and potential environmental impacts in the event that such infrastructure has to be retrofitted in future. The relevant works will comprise the provision of HDPE ducting and concrete chambers along the proposed scheme between Cross Guns Bridge and Broom Bridge. The inclusion of these works in the Royal Canal Greenway project will not have any appreciable additional environmental impacts over those of the planned scheme works. Both the accompanying EIA Screening and AA Screening documents have considered the provision of the ducting and chambers in reaching their respective conclusions.

Any future installation and energisation of high voltage cables will be a separate matter for the ESB subject to its own planning processes (as applicable). The inclusion of ducting and chambers in the Royal Canal Greenway project will ensure that such cables could be installed in future with minimal impact on greenway operation and the environment. It should be noted that high voltage installations require almost no maintenance, except in fault repair scenarios, so maintenance activities will not disrupt the regular operation of the towpath.

6. ENVIRONMENTAL CONSIDERATIONS

6.1 Environmental Impact Assessment Screening

The Environmental Impact Assessment (EIA) Screening Report undertaken for this amending Part VIII application has determined that the scheme does not exceed the thresholds that trigger the mandatory requirement for EIA and therefore the proposed development is deemed to be a sub-threshold development. Accordingly, a Screening Assessment has been carried out in respect of this sub-threshold development in accordance with Schedule 7 of the Planning and Development Regulations 2001 (as amended). The EIA Screening found that any likely negative environmental effects arising from the proposed development will be **slight, negative, short-term** impacts in localised areas during the construction phase and can be mitigated as part of the contractor's Construction Environmental Management Plan to be agreed by the Local Authority prior to the works. The operational effects will be **moderate, positive and long-term**. It is therefore concluded that the proposed development does not require an Environmental Impact Assessment and an Environmental Impact Assessment Report is not required.

6.2 Screening for Appropriate assessment

An Appropriate Assessment (AA) Screening Report was prepared by ROD-AECOM on behalf of Dublin City Council (the Competent Authority in this case) for the entire scheme in compliance with Part XAB of the Planning and Development Act, 2000 (as amended). As part of that assessment, the potential for the scheme to significantly affect any European sites in the likely zone of impact was considered. The AA Screening Report concluded as follows:

"It is the considered opinion of ROD-AECOM, as the author of this AA Screening Report, that Dublin City Council, as the Competent Authority, may find in completing its AA Screening in respect of the Royal Canal Premium Cycle Route - Phase 4 Phibsborough to Ashtown, that the Project, either individually or in combination with other plans and projects, is not likely to have a significant effect on the South Dublin Bay and River Tolka Estuary SPA, the North Bull Island SPA, the North Dublin Bay SAC or any other European site, in view of best scientific knowledge and the Conservation Objectives of the site concerned. Therefore, it is the recommendation that the Competent Authority may determine that AA is not required in respect of the Project."

6.3 Biodiversity (Flora and Fauna)

The scheme is located within the bounds of the Royal Canal proposed Natural Heritage Area. Habitats within the immediate vicinity of the scheme include canal (FW3), buildings and artificial surfaces (BL3), amenity grassland (GA2), flowerbeds and borders (BC4), stonewalls and other stonework (BL1), hedgerow (WL1), treelines (WL2) and improved agricultural grassland (GA1). The Royal Canal flows in an easterly direction where it eventually discharges into the River Liffey at North Wall quay, which in turn flows into Dublin Bay. Dublin Bay supports a number of sites designated for nature conservation.

An Ecological Impact Assessment (EclA) was prepared for the entire scheme, and this is available as a standalone report. The potential impacts of the scheme have been considered and assessed to ensure that all impacts on Key Ecological Receptors are

adequately addressed. Where potential significant impacts on Key Ecological Receptors are predicted, mitigation has been prescribed to ameliorate such impacts.

A total of 2,500 m² of canal habitat will be permanently lost to accommodate the widening of the existing towpath into the canal. There will be minor loss of riparian habitat during the widening of the towpath. The canal bank will be restored following construction and vegetation will regrow and recover over time.

Where dredging is undertaken, there will be a short-term loss of aquatic vegetation. The species recorded within the scheme area are common and widespread within the Royal Canal and so can be expected to re-establish over the course of a few years.

There are no trees impacted along these three sections where reconfiguration of the canal channel is proposed.

There were no species listed on the Flora Protection Order (FPO) recorded in the study area during the surveys.

Construction activities within and adjacent to surface waters, e.g. canals, can negatively impact water quality. In this regard, mitigation is provided in the EclA to ensure that the construction of the scheme does not impact significantly on the water quality of the Royal Canal or waterbodies downstream of the canal.

The Royal Canal provides suitable habitat for fish including European Eel (*Anguilla anguilla*). The Contractor shall carry out works in accordance with the Fisheries Consolidation Act 1959 as amended and by the Local Government (Water Pollution) Act 1977 as amended.

Protected mammals including otter and bats were recorded along the canal. Specific mitigation measures are described in the EclA in relation to these species. Usage of artificial lighting during the construction phase will be limited to the works areas to minimise impacts on biodiversity including bats and otter. Public lighting poles and ducting will be installed as part of the Project; however, the final lighting regime including timing, colour and lux levels, will be informed by the results of lighting trials and concurrent surveys of bat activity to be undertaken in Summer 2023. The preferred lighting regime will be agreed with DCC public lighting in consultation with the National Parks and Wildlife Service prior to being commissioned.

The canal provides good nesting and foraging habitat for a range of bird species. Site clearance will take place outside the nesting bird season (1st March- 31st August inclusive). If site clearance is required during the nesting bird season, the area will be checked by a suitably qualified ecologist. If nesting birds are found to be present, the site clearance works will be postponed until the chicks have fledged.

Possible records of Glutinous Snail (*Myxas glutinosa*) and a Stonewort of the genus *Tolypella* from October 2022 were highlighted by the NPWS and Dublin City Council. A data submission was made to the NPWS to confirm the locations and positive ID to species level. At the time of writing no response was received. The project team will continue to liaise with DCC Parks and Biodiversity, and the NPWS in relation to *Myxas* and *Tolypella*, should records of red listed species be confirmed.

Three Invasive Alien Plant Species, subject to restrictions as listed on the Third Schedule of the Birds and Natural Habitats Regulations were recorded within the study area, namely, Japanese Knotweed, Nutall's Waterweed and Three-cornered Garlic. These species can impact negatively on the biodiversity, preventing the regeneration of

native species and leading to soil erosion. Measures have been recommended in the EclA to prevent further spread of these species within and outside the footprint of the scheme.

Following consideration of the residual impacts (post mitigation) the EclA concludes that reconfiguration of the canal will not result in any significant impacts on any of the identified Key Ecological Receptors.

No impacts on receptors of International Importance were identified. The potential for impacts on European designated sites is discounted in the Screening for Appropriate Assessment Report, which concluded, in view of best scientific knowledge and on the basis of objective information that the proposed development, either individually or in combination with other plans or projects, would not result in likely significant effects on European designated sites.

One Key Ecological Receptor (Royal Canal pNHA) will be affected by the scheme, as a result of direct habitat loss within the footprint of the scheme. However, given the small area of loss within the entire pNHA this impact is not considered to be significant.

Otter activity including two active holts, three inactive holts, two couches, slides and spraints were recorded within the study area. Given the proximity of the Project to holts and couches, there is potential for the project to disturb Otter resting places. A derogation licence will be required from the NPWS in advance of any works in these areas. Mitigation measures are presented in the EclA, and are recommended as conditions of the licence.

Other than the identified Key Ecological Receptors, the ecological impacts on flora and fauna of Local Importance (Lower Value) are not considered to be significant in the short, medium or long term.

It is considered that, with the implementation of the mitigation measures set out in the EclA, the construction and operation of the scheme will not have a significant negative impact on biodiversity in the Zone of Influence.

6.4 Landscaping and Tree Impacts

The landscaping plan for the scheme (BSM, 2022) details the restoration of the canal bank following construction. The canal bank is to be relocated and reshaped. The existing growth is to be lifted in a sod or turf with a sufficient root zone then stored on site locally in a wet bed situation. The sods will be reinstated as soon as works to the bank are completed. In certain sections, marginal planting including Sweet Reed Grass and Reed Canary grass will be used to enhance the re-established canal bank.

No trees will be impacted along these three sections to which this Amending Part VIII relates.

6.5 Flooding and Drainage

The Royal Canal is a managed watercourse with built in flood management mechanisms such as the overflow to the Tolka River between Lock 9 and 10, and the lock gates. In line with the original Part VIII proposals, a weir structure raising the path over the overflow sewer will prevent the towpath from flooding, and from impacting the ability of the water overflow reaching the sewers. There are no known flooding incidents along the sections of the canal where it is proposed to reconfigure the channel.

The overall scheme proposals will not result in any additional water overflow to the canal. Where the greenway is segregated, the footpath side will fall towards the canal and the cycle track element will fall towards the landscaping strip to the land side. To prevent flooding of greenway facility during times of saturated earth, the greenway facility will be raised 50mm above and tapered back to the adjacent soil level. To prevent such water build-up overflowing into bounding sites that are below the level of the towpath, the 0.5m land side verge strip will comprise an infiltration trench with a clay seal.

A 300mm freeboard between the towpath level and the canal water will also be provided throughout the entire scheme, at the request of Waterways Ireland. This currently already exists along most of the route and the works required to implement it throughout will be imperceptible.

There will be no impact on the sewers located beneath the canal channel during dredging works as long reach machines will be required and no machines will be permitted within the canal channel.

6.6 Population and Human health

The construction phase of the proposed development will likely give rise to localised slight, short term, negative effects as a result of noise, dust, landscape, visual and traffic impacts to Population and Human Health. It will also result in temporary closures of sections of footpath along the route in question. These aspects of the construction phase will result in, at worst, slight, temporary negative effects, in the form of nuisance to road-users and residents in the immediate vicinity. The works will be carried out in accordance with best practice in relation to health and safety, such that no direct, significant, negative human health effects are expected to arise as a result of on-site accidents or otherwise.

The operational phase of the proposed development will provide safer and more convenient infrastructure for cyclists and pedestrians along the route in question and will also tie in with the other phases of the Royal Canal Greenway. This is likely to facilitate and promote a modal shift away from private car use and towards cycling, walking or both along the route. In terms of human health in the locality, this will result in slight to moderate, permanent, positive effects, through reduced risk of road traffic accidents involving most vulnerable road-users, increased physical activity, improved access to outdoor recreation and reduced noise / air pollution due to internal combustion engines along the route.

6.7 Architecture, Archaeology, and Cultural Heritage Impact

The Dublin City Development Plan 2022-2028 designates the Royal Canal as a Conservation Area. The Plan states that, Conservation Areas have been '*designated in recognition of their spatial interest or unique historic and architectural character and important contribution to the heritage of the city*'. The Royal Canal including the various locks, boundary walls and structures all fall within the Conservation Area designation. The Conservation Area is recognised as a unique industrial heritage landscape. There will be moderate negative effects on the Conservation Area due to the direct changes occurring to the width of the Royal Canal and towpath.

During the operational phase, the regeneration and enhancement of the Royal Canal corridor will have a positive impact and contribute to the enjoyment of this historic and cultural heritage amenity.

The proposed development will impact directly on the Royal Canal channel itself where the realignment is proposed. The channel is a Dublin City Industrial Heritage recorded site (DCIHR ref. 18-02-001 and 18-03-001)¹. However, the Royal Canal channel has also been dredged and relined in the past and therefore the direct impacts to the channel will be a moderate long-term effect.

An Architectural Heritage Impact Assessment was carried out on the proposed scheme by Lotts Architecture and Urbanism Ltd. in March 2023. The report assesses the impact of the scheme on the historical canal and its environs, which is of architectural, historical, and technical significance. The report concludes that the proposed scheme will not have a negative impact on the historic canal setting.



Figure 9 Previous Works within the Canal Channel east of Coke Oven Cottages

6.8 Public Lighting

Daubenton's Bat was recorded foraging along the canal, hedgerows, treelines, and scrub habitat along the Royal Canal. As a result, the scheme will incorporate lighting that is sensitive to the needs of these bats. As of March 2023, Dublin City Council is funding trials to survey the impact of public lighting on bat behaviour on the Royal Canal. Public lighting poles and ducting will be installed as part of the Project; however, the final lighting regime including timing, colour and lux levels, will be informed by the results of lighting trials and concurrent surveys of bat activity to be undertaken in Summer 2023. The preferred lighting regime will be agreed with DCC public lighting in consultation with the National Parks and Wildlife Service prior to being commissioned.

¹ <https://heritagemaps.ie/WebApps/DublinCountyHeritage/index.html>

7. CONCLUSIONS

This report supports the amending Part VIII application for Phase 4 of the Royal Canal Greenway Cycle and Pedestrian Route from Phibsborough to Ashtown. The works will include:

- Widening the towpath by realigning the northern bank of the canal channel by a minimum of 1.4m and up to a maximum 2.4m.
- Buff high friction surface outside the Coke Oven Cottages to help reduce the speed of cyclists. The buff surface will also highlight the change of use in this area.
- Widening the towpath between the Coke Oven Cottages east to Lock 6.
- Additional signage to advise greenway users of the various activities.

The works will provide improved Quality of Service along the Royal Canal with no impact on adjacent land uses.

Widening the towpath into the canal channel, rather than on the land side into other land areas, allows for the scheme to be delivered without the need for land acquisition processes. When complete, this scheme will provide a high quality and safe facility for pedestrians, cyclists and local residents along the entire length of the canal towpath between Phibsborough and Ashtown.