



# **Environmental Impact Assessment Screening**

Park Bridge and Associated Works

12 December 2019



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# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Project background	1
1.2	EIA Legislative Background	1
1.3	Irish Legislative Context	1
1.4	Subthreshold EIA Screening	2
1.5	EIA Screening Methodology	3
1.6	Report Structure	3
	1.6.1 Annex IIA	3
	1.6.2 Annex III	4
<b>2</b>	<b>Description of the Development</b>	<b>6</b>
2.1	Project Overview	6
	2.1.1 Construction Methodology	6
	2.1.2 Operational Phase	8
2.2	Spatial Planning Context	8
2.3	Baseline Environment	9
	2.3.1 Ecology	9
	2.3.2 Archaeology	11
	2.3.3 Land	11
	2.3.4 Water	12
	2.3.5 Landscape	12
<b>3</b>	<b>EIA Screening Assessment</b>	<b>13</b>
3.1	Type and Characteristics of Potential Impact	16
<b>4</b>	<b>Conclusions</b>	<b>17</b>

# 1 Introduction

## 1.1 Project background

This Environmental Impact Assessment (EIA) Screening Report has been prepared by Mott MacDonald Ireland Limited on behalf of Limerick City and County Council for the proposed Park Bridge project.

The bridge and the approach roads to the north and south of the canal are within designated "Slow Zone" and shared use areas. Pedestrians, cyclists and vehicles share this space and safety is managed through the implementation of a 30km/hr speed limit, speed ramps and junction traffic signals. The construction of the new bridge over the canal adjacent to the existing rail bridge, will accommodate the pedestrianisation of the existing Park Bridge. The aim of these works is to improve the safety of the pedestrian, cyclist, and vehicle crossing facilities of the canal.

## 1.2 EIA Legislative Background

The requirement for environmental impact assessment has its origins in Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment. This Directive has been amended three times and was codified by Directive 2011/92/EU in 2011. Directive 2011/92/EU was subsequently replaced by Directive 2014/52/EU in 2014. The primary objective of the EIA Directive is to ensure that projects which are likely to have significant effects on the environment are subject to an assessment of their likely impacts.

Directive 2014/52/EU provides a definition of environmental impact assessment as being a process consisting of:

- The preparation of an environmental impact assessment report (EIAR);
- The carrying out of consultations required to inform the EIAR;
- The examination by the competent authority of the information presented in the EIAR and any supplementary information;
- The reasoned conclusion by the competent authority on the significant effects of the project on the environment; and
- The integration of the competent authority's reasoned conclusion into its decisions.

In determining the requirement for EIA, the Directive differentiates between the projects that always require EIA and those for which an EIA may be required. These projects are listed in Annex I and Annex II of the Directive.

**The Park Bridge project is not of a type requiring mandatory EIA under the EIA Directive.**

## 1.3 Irish Legislative Context

Directive 2014/52/EU was formally transposed into Irish planning law on 1<sup>st</sup> September 2018 through the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018. Project types and project criteria that are used to determine whether a project requires "mandatory EIA" are listed in the following legislation:

- First Schedule of European Communities (Environmental Impact Assessment) Regulations (S.I. No. 349 of 1989) as amended

- Schedule 5 of the Local Government (Planning and Development) Regulations (S.I. No. 25 of 1990) as amended
- Section 50 (1) of the Roads Act 1993 as amended;
- Article 8 of the Roads Regulations 1994.

Road schemes that require mandatory environmental impact assessment are as follows:

- The construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area; and
- The construction of a new bridge or tunnel which would be 100 metres or more in length
- construction of a motorway, busway or service area

**The proposed Park Bridge Project is not of a scale or in a location type which would require a mandatory EIA under current national legislation.**

#### 1.4 Subthreshold EIA Screening

The project is not of a type that would require a mandatory EIA. However, having regard to Circular Letter PL 1/2017, Limerick City and County Council are committed to assessing the Project for its potential to have significant effects on the environment. As such, Mott MacDonald, on behalf of Limerick City and County Council has prepared this Assessment Report to inform a determination as to whether any application for statutory approval for the Park Bridge project should be accompanied by an Environmental Impact Assessment Report.

It is of note also that, in accordance with Section 50 of the Roads Act, 1993 as amended, where a Roads Authority (such as Limerick City and County Council) considers that a proposed road development (which is not the subject of mandatory EIA) would be likely to have significant effects on the environment, then there is a requirement for the Roads Authority to inform An Bord Pleanála in writing of this conclusion. Where An Bord Pleanála concurs with the conclusion of the EIA Screening assessment, then it will direct the Roads Authority to prepare an Environmental Impact Assessment Report. Where An Bord Pleanála does not concur with the conclusion of the assessment, then this conclusion will be notified to the Roads Authority. This Assessment Report has therefore also been prepared to assist the Roads Authority in their consideration of whether the proposed Park Bridge project would be likely to have significant effects on the environment.

With specific reference to Circular PL10/2018 (Department of Housing, Planning and Local Government, 22<sup>nd</sup> November 2018) Article 120(3) of the Planning and Development Regulations 2001 (the Regulations) as amended by S.I. 296 of 2018, there is a requirement for inclusion with the public notices of proposed development by a local authority of the conclusions of the preliminary examination or screening determination by the local authority (that an EIA is not required) in respect of the proposed development. Where any person considers that a development proposed to be carried out by a local authority would be likely to have significant effects on the environment, he or she may, at any time before the expiration of 4 weeks beginning on the date of the publication of the notice apply to the Board for a screening determination as to whether the development would be likely to have such effects.

## 1.5 EIA Screening Methodology

This assessment was undertaken having regard to the following legislation and guidance:

- Circular Letter PL 1/2017, Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive), Department of Housing, Planning, Community and Local Government, May 2017;
- The Planning and Development Acts 2000 to 2018, as amended and the Planning and Development Regulations 2001 to 2018, as amended;
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out EIA, Department of Housing, Planning and Local Government, August 2018;
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, EPA, Draft, August 2017;
- Advice Notes for Preparing Environmental Impact Statements, EPA, Draft, September 2015;
- Guidance on EIA Screening (Directive 2011/92/EU as amended by 2014/52/EU), European Commission, 2017;
- Environmental Impact Assessment of National Road Schemes – A Practical Guide (NRA, 2008);
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 (revised 2010).

## 1.6 Report Structure

This report is structured such that the criteria to be considered in determining whether the project has potential to have significant effects on the receiving environment, as set out in Annex IIA and Annex III of the EIA Directive (2014/52/EU), are addressed. These screening criteria are also set out in Schedule 7 of the Planning and Development Regulations 2001, as amended.

### 1.6.1 Annex IIA

Annex IIA of the EIA Directive sets out the information to be provided by the 'developer' to the competent authority, for the purpose of EIA Screening. This information, which normally would only apply only to Annex II projects, is as follows:

1. A description of the project, including in particular:
  - a. a description of the physical characteristics of the whole project and, where relevant, of demolition works;
  - b. a description of the location of the project, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
2. A description of the aspects of the environment likely to be significantly affected by the project.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the project on the environment resulting from:
  - a. the expected residues and emissions and the production of waste, where relevant;
  - b. the use of natural resources, in particular soil, land, water and biodiversity.

The Directives that the criteria of Annex III shall be taken into account, where relevant, when compiling the information in accordance with points 1 to 3 above.

### 1.6.2 Annex III

Annex III of the EIA Directive sets out the following evaluation criteria to determine whether projects listed in Annex II should be subject to EIA.

#### **Characteristics of Projects**

*The characteristics of projects must be considered, with particular regard to:*

1. *the size and design of the whole project;*
2. *cumulation with other existing and/or approved projects;*
3. *the use of natural resources, in particular land, soil, water and biodiversity;*
4. *the production of waste;*
5. *pollution and nuisances;*
6. *the risk of major accidents and/ or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;*
7. *the risks to human health (for example due to water contamination or air pollution).*

#### **Location of Projects**

*The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:*

1. *the existing and approved land use;*
2. *the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;*
3. *the absorption capacity of the natural environment, paying particular attention to the following areas:*
  - a. *wetlands, riparian areas, river mouths;*
  - b. *coastal zones and the marine environment;*
  - c. *mountain and forest areas;*
  - d. *nature reserves and parks;*
  - e. *areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;*
  - f. *areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;*
  - g. *densely populated areas;*
  - h. *landscapes and sites of historical, cultural or archaeological significance.*

#### **Type and Characteristics of Potential Impact**

*The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard in particular to the impact of the project on the factors specified in Article 3(1), taking into account:*

1. *the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);*
2. *the nature of the impact;*
3. *the transboundary nature of the impact;*
4. *the intensity and complexity of the impact;*
5. *the probability of the impact;*
6. *the expected onset, duration, frequency and reversibility of the impact;*
7. *the cumulation of the impact with the impact of other existing and/or approved projects;*

8. *the possibility of effectively reducing the impact.*

Section 3.0 of this report provide a comprehensive analysis of the Park Bridge project having regard to the above headings.

## 2 Description of the Development

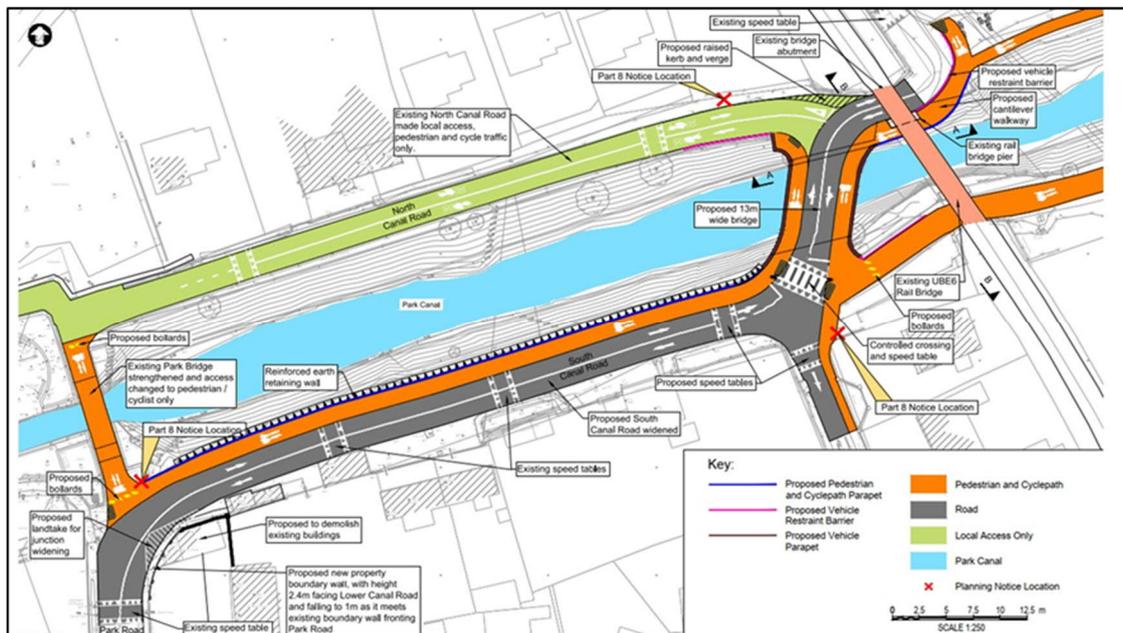
### 2.1 Project Overview

It is proposed to construct a new bridge approximately 140m to the east of the existing Park Bridge, adjacent to the existing railway bridge. The south end of the Lower Park Road on the north canal bank, where it passes under the rail bridge will be connected by the new bridge to the junction at the east end of the south canal road. The north canal road will be maintained as a pedestrian and cycleway with local access for residents. The south junction will be widened to accommodate traffic travelling from the south canal road towards Rhebogue Road.

The existing Park Bridge will be closed to vehicular traffic and retained as a pedestrian and cycle crossing for the park.

The new bridge will consist of reinforced concrete abutments supported on piles on each canal bank. The bridge will have a skew span of 17.6m which will maintain the existing navigable canal width. The deck width will be 13m which is enough to accommodate two lanes of highway traffic, and combined pedestrian/cycleway raised verges to the east and west sides of the deck. The approaches will be a combination of unreinforced and reinforced earth embankments. An additional towpath will be built on the north abutment.

**Figure 1: Proposed Layout**



#### 2.1.1 Construction Methodology

##### Site access and compound

The bridge itself will be accessed using the existing road network. All works will be carried out from road level.

The works will require lane closures and traffic management to facilitate the works. The works will be carried out over a 4-5-month period. The road will be closed to traffic to facilitate the piling

works, and traffic management put in place throughout. The location of the site compound has not been determined as of yet. The location of the compound will be agreed with Limerick City and County Council, however the compound will be located a minimum of 50m from watercourses / drains. The truck wash-down facility will be located within a dedicated area within the site compound.

Diversion of services (Eir, ESB and Irish Water) will be required to accommodate the works, this will be carried out by or under the supervision of the individual service providers. A small shed will require removal to accommodate road widening and a new boundary wall and landscaping will be completed in association with the shed removal.

### **Construction of new bridge**

All works will be carried out during daylight hours.

A works area will firstly be established by sheet piling along the canal bank for approximately 5m upstream and 5m downstream from the footprint of the proposed bridge. The sheet piles will isolate the works area and prevent the release of emissions into the canal. A hardstanding area for the piling rig will be set up at road level behind the existing northern and southern banks of the canal. Trees within the footprint of the works will be cut back to stump level. Sheet piles will then be installed flush with the canal bank. The piling works will be carried out from the banks. The line of the piles will not extend beyond the edge of the canal banks. There is no requirement for instream works.

Following the installation of the piles the tree stumps and roots will be excavated. The canal banks behind the sheet piled area will then be excavated to accommodate the construction of the new towpaths and bridge abutments. Given the height and slope of the canal banks it is unlikely that there will be any groundwater pumping required. Should the need arise, the discharge of groundwater to the canal will be in accordance with IFI *Guidelines on protection of Fisheries During Construction Works in and Adjacent to Waters (2016)* such that it is treated prior to entering any watercourses. Any surplus material which is excavated and not suitable for reuse on-site will be disposed of in accordance with waste legislation.

Piles for the abutment will then be constructed behind the sheet piles. A temporary weekend road closure to the Lower Park Road will be put in place to accommodate the works.

Reinforcement and formwork for the abutments and wingwalls will then be erected. The abutments and wingwalls will be cast in situ. Concrete will be delivered to site by truck. Any washing out of the truck will take place within a designated impermeable bund within the site compound. The concrete will be allowed to fully cure, and shutters removed. The abutments and wingwalls will then be backfilled with granular material.

Temporary decking will be erected spanning the abutments. Formwork and reinforcement for the decking will be constructed. The deck of the bridge will then be cast in situ, and steel parapets installed. Following the construction of the parapets the deck will be waterproofed. This will be spray applied and, as it binds to the deck on contact, there will be no run-off. The waterproofing will be within the confines of the parapet edge beams and no spraying is required outside of the deck over the canal. Following the waterproofing the temporary decking will be removed. An earth embankment will be installed to tie in the new bridge and existing road.

### **Construction of the towpaths, walkways, and cycle paths**

The sheet piles will be cut down to the towpath level, and the towpaths installed. Trenches will be excavated on the south canal bank and the precast concrete crib wall footings will be installed. Modular crib walls will be erected along the cycle paths and where the road will then be widened.

The cribwall structures will then be backfilled along with the retained area. Along the southern canal bank the existing road will be widened.

The south lane of the existing carriageway adjacent to the rail bridge will be excavated. Cantilever walkway foundations will be cast within the existing roadway and backfilled to the reinstated road level. Steel beams will be connected to the buried foundations and cantilever cycle path decking will be constructed adjacent to the north railway bridge. The embankment adjacent to the road to the northeast of the proposed bridge will be excavated. Precast concrete foundations will then be installed along with a modular crib retaining wall. The wall will be backfilled with 6N granular material. The lower park road will be widened to the east of the railway bridge. Flexible surfacing will be installed to all walkway paths and to the cycle paths. Cycleway barriers will also be installed along all cycle paths.

### **Reinstatement and finishing**

The carriageway along the north bank, and the bridge deck will be surfaced, and new road markings painted. Additional speed restriction tables will be added to existing roads, along with vehicle restraint barriers and road signage. The traffic lights at Park bridge will be removed and traffic bollards placed. The exposed fasciae of the crib walls will be seeded. Pre-seeded erosion matting will be installed in areas where vegetation was removed during the works.

Temporary decking and sheeting will be placed over the canal between the lock walls under Park bridge. Steel replacement beams will be erected to Park Bridge. The existing beams will be shot-blasted and repainted. The temporary decking will then be removed.

### **2.1.2 Operational Phase**

The proposed works consist of alterations to the existing Park Bridge, and the addition of new bridge spanning the Park Canal adjacent to the existing railway bridge. The existing Park Bridge will be pedestrian and cyclist only, while the new bridge will carry cars, cyclists and pedestrian over the canal. The design life of the works is 120 years and any further alterations to the bridges will be subject to environmental assessment.

## **2.2 Spatial Planning Context**

### **Limerick City Development Plan**

The Limerick City Development Plan (2016) sets out an overall strategy for the proper planning and sustainable development of the City. The plan gains its legal basis from the Planning & Development Act, 2000-2008.

The City Development Plan states that *“The City Council will strive to create a network of natural heritage areas and recreational open spaces/amenity areas by promoting linkages and accessibility between these areas and by using walkways/cycleways to connect them where appropriate. Linkages will serve to provide higher accessibility for the wider community to green areas, provide more interaction and recreation on these sites and strengthen the existing walkways and cycleways while also supporting the City Council’s general objective of encouraging alternative transportation modes.*

Policy LBR.16, in relation to this states that *“It is the policy of Limerick City Council to develop a network of high-quality amenity walkway routes, particularly along waterways, linking existing parks and public open spaces and providing for strategic creation of new public open spaces.”*

Further a key objective listed in the City Development plan for the Corbally/Rhebogue regions is the development of the canal as a sustainable transportation link between the University of Limerick and the city centre.

The proposed Park Bridge project would allow for improvement of the pedestrian, and cyclist, crossing facilities of the canal, improving safety by segregating them from vehicles, and connecting walkway routes along the canal.

### **Limerick 2030: An Economic and Spatial Plan for Limerick**

The Limerick 2030 economic and spatial plan is the first such plan for the city. The document aims to set out a framework for public sector action and private sector investment until 2030. The spatial plan notes that pedestrian access to the waterfronts at the Canal is challenged by through traffic routes and lists this as a challenge for the city. The plan also states that “*there is an absence of a connected framework of public spaces and streets that brings the central city districts together*”;

The plan proposed a series of co-ordinated improvements to improve the City Centre transport infrastructure. These improvements generally seek to:

- improve pedestrian access
- reduce car traffic, and better manage traffic flows
- improve management of parking
- accommodate a new/improved connection between the city centre and the University of Limerick campus for pedestrians, cyclists and public transport users
- create the conditions where Limerick City gains a reputation as a safe and easy place for pedestrians to use and as a green transport City.

Among items which are listed to be complemented by a new public realm strategy, the plan includes “*Renovation of the Park Canal to allow it to fulfil its potential as a valuable waterside amenity and an important link between the City Centre and the University of Limerick.*”

The proposed Park Bridge project would allow for improvement of the pedestrian, cyclist, and vehicle crossing facilities of the canal, connecting walkway routes along the canal.

## **2.3 Baseline Environment**

### **2.3.1 Ecology**

Mott MacDonald ecologists undertook a field survey of the Park Bridge project on the 18<sup>th</sup> of October 2018. The proposed project is located within the Lower River Shannon SAC (002165) and approximately 1.5km from the River Shannon and River Fergus Estuaries SPA (004077). Drainage from the road will be to the existing drainage network.

The project is located within a wider urban environment and is bordered to the north and the south by residential housing. The project spans the Park Canal. Adjacent to the bridge the banks of the canal were stone. Further from the bridge the banks were steeply sloped and vegetated with cock's foot grass (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*), winter heliotrope (*Petasites fragrans*), nettles (*Urtica dioica*), broad dock (*Rumex obtusifolius*), creeping buttercup (*Ranunculus repens*), and dandelion (*Taraxacum vulgaria*).

Where the banks were not maintained they had become dominated by scrub. Species recorded within the scrub included willow (*Salix spp.*), brambles (*Rubus fruticosus*), nettles (*Urtica dioica*),

and willow herb (*Chamaenerion angustifolium*). The toe of the banks was fringed by stands of common reed (*Phragmites australis*).

The lands are generally of lower ecological value due to the low species diversity.

A small shed which is located within the south eastern corner of the works area will require removal. This shed has been identified as having potential to contain bat roosts. Confirmed bat roosts cannot be removed unless in accordance with a derogation afforded under the Wildlife Act 1976 as amended. A pre-construction emergence survey will be carried out to ascertain whether the shed contains roosting bats. In the event that a bat roost is confirmed a derogation license for removal of the roost will be sought from the National Parks and Wildlife Service.

### European Designated sites

The proposed works area is located within the Lower River Shannon SAC (002165).

The site synopsis describes the Lower River Shannon SAC (002165) as follows:

*“This very large site stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head/ Kerry Head, a distance of some 120 km. The site thus encompasses the Shannon, Feale, Mulkear and Fergus estuaries, the freshwater lower reaches of the River Shannon (between Killaloe and Limerick), the freshwater stretches of much of the Feale and Mulkear catchments and the marine area between Loop Head and Kerry Head. Rivers within the sub-catchment of the Feale include the Galey, Smearlagh, Oolagh, Allaughaun, Owveg, Clydagh, Caher, Breanagh and Glenacarne. Rivers within the sub-catchment of the Mulkear include the Killeenagarraiff, Annagh, Newport, the Dead River, the Bilboa, Glashacloonaraveela, Gortnageragh and Cahernahallia.”*

The qualifying interests for which the Lower River Shannon SAC is designated for are presented below in table 1.

**Table 1: Lower River Shannon SAC (002165)**

Qualifying Interests (* Indicates priority habitats)	
Annex I Habitats	Annex II Species
Sandbanks which are slightly covered by sea water all the time [1110]	<i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]
Estuaries [1130]	<i>Petromyzon marinus</i> (Sea Lamprey) [1095]
Mudflats and sandflats not covered by seawater at low tide [1140]	<i>Lampetra planeri</i> (Brook Lamprey) [1096]
Coastal lagoons [1150]	<i>Lampetra fluviatilis</i> (River Lamprey) [1099]
Large shallow inlets and bays [1160]	<i>Salmo salar</i> (Salmon) [1106]
Reefs [1170]	<i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]
Perennial vegetation of stony banks [1220]	<i>Lutra lutra</i> (Otter) [1355]
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	
Salicornia and other annuals colonising mud and sand [1310]	
Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330]	
Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]	
Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260]	

### Qualifying Interests (\* Indicates priority habitats)

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Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]

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Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]

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A report to inform Screening for Appropriate Assessment has been undertaken for the project and has identified that there is no potential for a significant effect on any European site.

### Nationally Designated Sites

Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) are sites designated under the Wildlife Acts, 1976-2014 as they are considered important habitats which support animals or vegetation of importance.

Park bridge is not located within or in close proximity to any NHAs or pNHAs. The nearest nationally designated site is located approximately 1km to the east of the project.

### 2.3.2 Archaeology

Park Bridge is not listed as a Recorded Monument under the National Monument Act, nor is it listed on the National Inventory of Architectural Heritage. The original structural form has been altered by removal of the arch barrel, however, a significant portion of the original structure remains. There is a plaque on the bridge dating from 1891 highlighting that this structure historically marked the boundary of Limerick City. The canal itself is also not listed as a protected structure.

Four structures which are located along Park Canal are listed under the National Inventory of Architectural Heritage. These structures (listed also in the Record of Protected Structures) are lock keeper's house (Reg no: 21513051), lock walls (Reg no: 2153052), lock quay bridge (Reg no: 2153050), a carriage arch (Reg no: 21513049) and a warehouse (21513048) associated with the canal. These structures are located at the western extent of the canal. There are no Protected structures or monuments located within or adjacent to the footprint of the works, and the works. The works area is also not within any architectural conservation areas.

### 2.3.3 Land

#### Land use

The Limerick City Development Plan details the land to the north and south of the project as residential. The land to the east and west of the project is public open space, and sports ground.

#### Geology

The bedrock within the works area is identified as Visean Limestones (Undifferentiated) by the Geological Survey Ireland Spatial Resources.

#### Hydrogeology

The Geological Survey Ireland Spatial Resources identifies the works area as entirely "Made ground". The aquifer for the region is described as a "Locally Important Aquifer - Bedrock which is Generally Moderately Productive". An area north of the works area is mapped as "Moderate permeability subsoil and overlain by well drained soil". The land to the east and west of the works area is described as "Marine/estuarine silts and clays".

### 2.3.4 Water

#### **Water quality**

There is no water quality data available for the canal itself. However, data is available for Limerick Dock which is the transitional water body located downstream of the canal. The EPA mapping details this water body as being “unpolluted”, but “at risk” of pollution.

#### **Flood Extents**

The land to the east and west of the project location is identified as having a medium probability of coastal flooding (CFRAMS 2016). Medium Probability coastal flood events have an approximate 1 in 200 chance of occurring or being exceeded in any given year. This land is also identified as having a medium probability of river flooding. Medium Probability river flood events have an approximate 1 in 100 chance of occurring or being exceeded in any given year.

The works area, outside of the canal itself, is not identified in the flooding extents.

### 2.3.5 Landscape

The Park canal is not referenced in relation to any key landscape or visual locations.

## 3 EIA Screening Assessment

**Table 2: Characteristics of the Project**

Criterion	Discussion
Will the size and design of the whole project be considered significant?	No. The Park Bridge project consists of the construction of a new bridge spanning the canal adjacent to the rail bridge, along with the addition of cycle lanes and towpaths. The project is not significant in terms of design or size.
Will the project have a significant impact when considered in cumulation with other existing and/or approved projects?	The project is small scale in nature and does not have potential to result in significant impact. A search of planning applications submitted in surrounding townlands within the last 5 years was carried out in April 2019. The applications returned were all small scale in nature typically involving renovations, extensions, and construction of dwelling houses. No plans or projects were identified with the potential to cause a significant impact when considered in cumulation with the Park Bridge project.
Will the project involve the use of natural resources, in particular land, soil, water and biodiversity? Is the use of these natural resources considered significant?	No. The project will comprise the repair of an existing bridge and the construction of a new bridge. There are no other land, materials or energy requirements associated with the proposed development which will impact on non-renewable elements of the natural environment.
Will the project produce a significant volume of wastes?	During construction, solid waste will be generated however volumes requiring off-site management will not be significant. Other non-soil wastes associated with the project are not considered to be significant and can be readily disposed of/recycled through existing waste management infrastructure in the locality.
Will the proposed development create a significant amount or type of pollution during its construction or operation?	<p><b>Construction</b></p> <p>There is potential that the works will generate surface water emissions e.g. through generation of silt, cement fines, and hydrocarbons. The sequencing of the works is such that supporting sheet piles will be driven first. The sheet piles will extend 5m above and below the footprint of the bridge and act as a barrier to the canal. This will prevent the release of these emissions to the watercourse. It is unlikely that the water table along the banks is high enough to require pumping out of excavations given the steep, raised, nature of the canal embankments. As outlined in the construction methodology, should the need arise, the discharge of groundwater to the canal will be in accordance with <i>IFI Guidelines on protection of Fisheries During Construction Works in and Adjacent to Waters (2016)</i> such that it is treated prior to entering any watercourses.</p> <p><b>Operation</b></p> <p>During operation no significant pollution is envisaged. There will be no increase in traffic to the area caused by the project. The drainage of the works will tie in to the existing drainage for the surrounding road network.</p>
Will the project result in a risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge?	There is significant industry experience in Ireland in the construction of roads and bridge projects. It is not considered likely that the substances or technologies to be used during the construction or operational phases of the proposed development could be considered as presenting a significant accident risk.

Criterion	Discussion
<p>Will the project result in any risks to human health (i.e. due to water contamination or air pollution)?</p>	<p>The works are small scale, and short term (4-6 months) in nature. The design of the works has been developed such that there is no requirement for instream works. There is potential that the works will generate surface water emissions e.g. through generation of silt, cement fines, and hydrocarbons</p> <p>The sequencing of the works is such that supporting sheet piles will be driven first. The sheet piles will extend 5m above and below the footprint of the bridge and act as a barrier. This will prevent the release of these emissions to the watercourse. It is unlikely that the water table along the banks is high enough to require pumping out of excavations given the steep, raised, nature of the canal embankments. As outlined in the construction methodology, should the need arise, the discharge of groundwater to the canal will be in accordance with <i>IFI Guidelines on protection of Fisheries During Construction Works in and Adjacent to Waters (2016)</i> such that it is treated prior to entering any watercourses.</p> <p>The operational phase of the works will serve to alleviate traffic congestion in the area. There will be no rise in existing traffic levels as a result of the project. The aim of the works is to allow pedestrians and cyclists to safely utilise the greenways by segregating them from traffic. The drainage of the scheme will tie in to the existing drainage network. There will be no risk to human health as a result of the project.</p>

**Table 3: Location of the Project**

Criterion	Response
<p>Is the proposed development in line with the existing and approved land use?</p>	<p>The proposed Park Bridge project will assist the aims of the city development plan, and the spatial plan for Limerick 2030 by creating an important link between the City Centre and the University of Limerick.</p>
<p>Has the project the potential to impact on the relative abundance, availability, quality, and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground?</p>	<p>The project will involve only limited use of natural resources, for example in terms of land take and water supply, and as such the use of these resources is not considered significant.</p> <p>Drainage will tie into the existing drainage infrastructure associated with the surrounding road network.</p> <p>The project has no potential to impact on natural resources in the area and its underground.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to wetlands, riparian areas, river mouths</p>	<p>Park Canal is a highly modified waterbody. The existing canal banks are steep, and as such the riparian areas along the banks are limited. The outer layers of the piles will extend as far as the toe of the existing banks. There will be no restriction of the carrying capacity of the canal, or the absorption capacity of the riparian areas.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to coastal zones and the marine environment</p>	<p>The project has no potential to impact on these features of the natural environment having regard to its location.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to mountain and forest areas</p>	<p>The project has no potential to impact on these features of the natural environment having regard to its location.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to nature reserves and parks.</p>	<p>The project has no potential to impact on these features of the natural environment having regard to its location.</p>

Criterion	Response
<p>Has the proposed development the potential to impact directly or indirectly on any site designated under national legislation or/and by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC (e.g. SAC, SPA, NHA)?</p>	<p>The proposed project is located within the Lower River Shannon SAC (002165). No viable source-pathway-receptor links were identified to any other European designated sites.</p> <p>The canal is a highly modified watercourse and is isolated from the main stretch of the River Shannon by the existing Lock Gates. As such, the canal does not support many of the qualifying features associated with the SAC, for example salmon and lamprey. The design of the works has been developed such that there is no requirement for instream works. As there is no requirement for instream works, there will be no direct impact on any qualifying features for which the SAC is designated.</p> <p>There is potential that the works will generate surface water emissions e.g. through generation of silt, cement fines, and hydrocarbons. The sequencing of the works is such that supporting sheet piles will be driven first. The sheet piles will extend 5m east and west of the footprint to the bridge and act as a barrier, preventing the release of these emissions to the watercourse.</p> <p>A report to inform Screening for Appropriate Assessment has been undertaken for the project. This report provides detail on the potential for impact on each of the qualifying features for which the site is designated. The report has identified that there is no potential for a significant effect on any European site.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure</p>	<p>The proposed project has no potential to impact on these features of the natural environment.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to densely populated areas</p>	<p>The proposed project has no potential to impact on the natural environment in densely populated areas. The works are surrounded by residential properties and within a wider urban environment. The works will not result in any restriction in the carrying capacity of the canal.</p>
<p>Has the project the potential to impact on the absorption capacity of the natural environment, paying particular attention to landscapes and sites of historical, cultural or archaeological significance</p>	<p>A review of the Sites and Monuments Record (SMR) data available from the National Monuments Service indicates that there are no sites of archaeological significance located within the proposed project site.</p> <p>The site is not located within or in proximity to scenic views or protected landscapes as identified in the Limerick City Development 2010-2016 (as extended).</p> <p>As a result, there is no potential for the proposed project to impact directly or indirectly on listed or scenic views or protected landscapes.</p>

### 3.1 Type and Characteristics of Potential Impact

Criteria	Discussion
Outline the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected)	The magnitude of impacts is not considered to be significant as the project is 820m in length. The works are located within an urban area, however, there are a limited number of sensitive residential receptors in the vicinity.
Outline the nature of the impact	There is no potential for negative adverse impacts arising from the proposed project. Construction will be to good industry standard and will be in accordance with environmental good practice. Design will be in accordance with industry standards. The project will result in a permanent change from canal embankment to piled walls. Given that the canal is already highly modified, this is not a significant impact.
Outline the transboundary nature of the impact	The project will not result in transboundary impacts.
Outline the intensity and complexity of the impact	It is considered that with appropriate design and construction phase environmental best practice will not have potential to have a significant impact on the receiving environment alone or in combination with any projects.
Outline the probability of the impact	During construction, conventional construction and best environmental practice techniques can be readily deployed. Traffic management will be in place in order to keep disruption to a minimum during the construction phase. It could not be concluded that there is a high probability that adverse environmental impacts will occur.
Outline the expected onset, duration, frequency and reversibility of the impact	The proposed works are small scale and short-term (4-6 months) in nature. It is considered that there is no potential for significant environmental effect resulting from the proposed project.
Outline the cumulation of the impact with the impact of other existing and/or approved projects	The design of the project has been optimised to ensure that environmental impacts are minimised as much as possible. It is considered that there is no potential for significant environmental effect resulting from the proposed project in isolation. A search of planning applications submitted in surrounding townlands within the last 5 years was carried out in December 2019. The applications returned were generally small scale in nature typically involving renovations, extensions, and construction of dwelling houses. Two plans for housing developments in the were noted also in the vicinity. No plans or projects were identified with the potential to cause a significant impact when considered in cumulation with the Park Bridge project.
Outline the possibility of effectively reducing the impact	The design of the project has been optimised to ensure that environmental impacts are minimised as much as possible. It is considered that there is no potential for significant environmental effect resulting from the proposed project.

## 4 Conclusions

It is concluded that impacts associated with the construction and operation of the proposed new bridge and associated works are not considered to be significant in the context of Annex III of the EIA Directive. This conclusion is based on the findings of the analysis provided in the preceding sections in relation to:

- Characteristics of Project;
- Location of Project; and
- Type and Characteristics of Potential Impact.

As part of the above analysis, a broad range of environmental media have been assessed in combination with planning and land-use considerations in the context of construction and operational phases. No potential impacts of significance were identified during either phase of the proposed development's lifetime.

