N25 Little Island Pedestrian and Cyclist Bridge Environmental Impact Assessment Report



Chapter 01 Introduction

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1. Introduction

1.1 Introduction

Ove Arup & Partners Ireland Ltd (Arup) has been appointed by Cork County Council (CCC) to prepare this Environmental Impact Assessment Report (EIAR). CCC, the National Transport Authority (NTA) and Arup have identified the benefits associated with the provision of a new pedestrian and cyclist bridge to enhance sustainable transport and active transport within the Eastgate Business Park and the surrounding area. The proposed bridge will cross the N25 and connect the Little Island Train Station, the L3004 Glounthaune Road and the future greenway to the Eastgate Business Park in Little Island, Cork. The objective of the proposed bridge is to provide efficient pedestrian and cycle connectivity between the Little Island Train Station and the Eastgate Business Park and to promote sustainable transport modes while minimising impacts on the surrounding area and environment.

For ease of reference, the proposed new pedestrian and cycle bridge is referred to as the '*Proposed Development*' in this chapter and throughout the EIAR.

This chapter outlines the background to the Proposed Development and summarises the required statutory consent procedure. This chapter also describes the methodology used to prepare this EIAR, provides details on competent experts and the consultation process that has been carried out to date.

This EIAR has been prepared in accordance with Article 5 of Council Directive 2011/92/EU as amended by Directive 2014/52/EU on the assessment of effects of certain public and private projects on the environment ('The EIA Directive').

1.2 Overview of the Proposed Development

The Proposed Development includes the construction of a new pedestrian and cyclist bridge and associated ramps over the existing N25. The Proposed Development is located approximately 10km to the east of Cork City and will cross over the N25 and the Cork City to Middleton Cobh railway line, connecting the Little Island Train Station, the Glounthaune Road and the future greenway to the Eastgate Business Park in Little Island, Cork. When operational, it will function as an active travel link for pedestrians and cyclists to travel from the Little Island Train station and surrounds to the Eastgate Business Park and further surrounds of Little Island.

Refer to **Image 1.1** for a site location map.

The Proposed Development consists of a new pedestrian and cyclist bridge that encompasses a segregated footway and cycleway that will be 5m wide. The proposed crossing will be approximately 460m long and will consist of a combination of different structural forms as follows:

- Northern approach ramp: Combination of earthen embankment and elevated ramp structure;
- Irish Rail span: Concrete portal frame structures;
- N25 span: Steel network arch structure; and
- South approach ramp: Combination of elevated ramp structure, at grade sections and earthen embankment.

Refer to Chapter 4, Description of the Proposed Development for further details.

The construction footprint of the Proposed Development, including the proposed construction compounds and bridge assembly compound is approximately 1.7 hectares. The construction footprint of the final works (excluding planting and minor tie in footpaths in the northern park area) is approximately 0.3 hectares.

The site layout for the Proposed Development is presented in **Figure 4.2** in **Volume 3** of this EIAR.



Image 1.1: Approximate location of the Proposed Development. Source: OpenStreetMap. Not to scale.

1.3 Planning and EIAR Processes

1.3.1 Overview of the Statutory Consent Process

Roads Act, 1993 as amended

A review of the Roads Act (1993), as amended, determined that the Proposed Development is considered a "road development" as defined under Section 2 of Roads Act (1993)

A "road" is defined as:

"(a) any street, lane, footpath, square, court, alley or passage,

(b) any bridge, viaduct, underpass, subway, tunnel, overpass, overbridge, flyover, carriageway (whether single or multiple), pavement or footway,

(c) any weighbridge or other facility for the weighing or inspection of vehicles, toll plaza or other facility for the collection of tolls, service area, emergency telephone, first aid post, culvert, arch, gulley, railing, fence, wall, barrier, guardrail, margin, kerb, lay-by, hard shoulder, island, pedestrian refuge, median, central reserve, channelliser, roundabout, gantry, pole, ramp, bollard, pipe, wire, cable, sign, signal or lighting forming part of the road, and

(d) any other structure or thing forming part of the road and—

(*i*) necessary for the safety, convenience or amenity of road users or for the construction, maintenance, operation or management of the road or for the protection of the environment, or

(ii) prescribed by the Minister";

A "road authority" is defined as:

"road authority", except in Part V, means the council of a county, the corporation of a county or other borough, or the council of an urban district";

A "public road" is defined as:

"public road" means a road over which a public right of way exists and the responsibility for the maintenance of which lies on a road authority.

The Proposed Development is interpreted to be a "road" development under the legislation and CCC is a "road authority". The proposed construction of the bridge is interpreted as the construction of a "*public road*" under the legislation.

Section 50 (1) of the Roads Act (1993) (as amended by S.I No 279 of 2019) relates to road developments subject to Environmental Impact Assessment (EIA).

The thresholds for mandatory EIA of a road development are set out in Section 50(1)(a) below. The prescribed types of proposed road development for the purposes of Section 50(1)(a)(iii) are set out in Article 8 of SI 119 of 1994 Roads Regulations and also set out below.

Roads Act (1993), as amended

"50. (1) (a) A road development that is proposed that comprises any of the following shall be subject to an environmental impact assessment:

(*i*) the construction of a motorway;

(*ii*) the construction of a busway;

(iii) the construction of a service area;

(*iv*) any prescribed type of road development consisting of the construction of a proposed public road or the improvement of an existing public road.

SI 119 of 1994 Roads Regulations. Part V Environmental Impact Assessment

"(8). The prescribed types of proposed road development for the purpose of subsection (1)(a)(iv) of section 50 of the Act shall be—

(a) 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;

(b) the construction of a new bridge or tunnel which would be 100 metres or more in length"

Section 50(1)(b) states that where the road authority considers that a proposed road development (other than development as listed in Section 50(1)(a)) consisting of the "construction of a proposed public road or the improvement of an existing public road" would be likely to have significant effects on the environment, it shall decide that it will be subject to EIA (i.e., it must carry out EIA Screening).

Section 50(1)(c) states that where a road authority considers that a proposed road development that it proposes (other than development as listed in Section 50(1)(a)) consisting of the "construction of a proposed public road or the improvement of an existing public road" would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making an application.

Further, Section 50(1)(d) states that where the construction of a proposed public road is located on a European site (or other important sites as listed in 50(1)(d)), the road authority proposing the development must make an EIA screening determination and it must also make its decision publicly available (Section 50(1)(f)).

Finally, Section 50(1)(e) states that An Bord Pleanála or the road authority shall take into account the relevant selection criteria specified in Annex III (of the EIA Directive) in making its EIA Screening determination.

1.3.2 Legislative Context

EIA

A European Directive for EIA has been in force since 1985 since the adoption of Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

The EIA Directive of 1985 has been amended three times by Council Directives 97/11/EC, 2003/35/EC and 2009/31/EC. It was ultimately codified and repealed by Council Directive 2011/92/EU on 13 December 2011. This Directive was further amended in 2014 by Council Directive 2014/52/EU which sets out the current provisions for member states on the assessment of the effects of certain public and private projects on the environment.

Pursuant to the EIA Directive, the competent authority may consider and take account of the EIAR for certain public and private projects that might have significant effects on the environment as part of the consent decision making process. In Ireland, the EIA content in relation to planning consents is set forth in Part X of the Planning and Development Acts 2000 to 2018 and in Part 10 of the Planning and Development Regulations 2001 to 2018.

This EIAR has been prepared in accordance with the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No 296 of 2018), the EIA Directive and also all Irish law and requirements under the Planning Act and Planning Regulations in respect of EIA.

EIAR under Section 172 of the Planning and Development Acts 2000 to 2018

Section 172(1) of Part X of the Planning and Development Acts 2000 to 2018 provides as follows:

(1) An environmental impact assessment shall be carried out by the planning authority or the Board, as the case may be, in respect of an application for consent for Proposed Development where either—

(a) the Proposed Development would be of a class specified in—

(i) Part 1 of Schedule 5 of the Planning and Development Regulations 2001, and either—

(I) such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or

(II) no quantity, area or other limit is specified in that Part in respect of the development concerned, or

(ii) Part 2 of Schedule 5 of the Planning and Development Regulations 2001 and either—

(I) such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part, or

(II) no quantity, area or other limit is specified in that Part in respect of the development concerned, or

(b) (i) the Proposed Development would be of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations 2001 but does not equal or exceed, as the case may be, the relevant quantity, area or other limit specified in that Part, and

(ii) the planning authority or the Board, as the case may be, determines that the Proposed Development would be likely to have significant effects on the environment.

Schedule 5 of Planning and Development Regulations, as amended

The prescribed classes of development and thresholds that may trigger an EIA are set out in Schedule 5 of the Planning and Development Regulations as amended.

A review of the classes of development listed under Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001 as amended was therefore carried out to determine whether the Proposed Development might be considered to fall into any of the development classes which require an EIA.

Typically, a local authority development which requires an EIA (i.e., of a class listed in Schedule 5 of the Planning and Development Regulations 2001, as amended, which list projects requiring EIA), must be submitted to An Bord Pleanála for approval under Section 175 of the Planning and Development Act (2000), as amended. However, subsection 14 of Section 175 specifically excludes road developments: "(14) This section shall not apply to proposed road development within the meaning of the Roads Act, 1993, by or on behalf of a road authority."

Assessment for EIA Requirement

The proposed N25 Pedestrian and Cycle Bridge "road" development is neither a motorway, busway nor service area, but it does consist of the construction of a bridge approximately 460m in total length and exceeds the thresholds outlined in Section 50(1)(a) of the Roads Act 1993, as amended, and Article 8 of the Roads Regulations 1994. Therefore, the Proposed Development triggers the need for a mandatory EIA.

CCC, as the competent authority, considered the EIA Screening Report prepared for the development and determined that an EIA was required. In accordance with Section 50(1)(c) of the Roads Act (1993), as amended, CCC notified An Bord Pleanála, in writing, of this decision and made the decision publicly available.

This EIAR has been prepared to provide the relevant information to the consent authority to enable it to undertake the EIA. The EIAR accompanies the statutory approval application for the Proposed Development which is being submitted to An Bord Pleanála. The EIA for the purposes of statutory consent will be undertaken by An Bord Pleanála.

The EIA must identify, describe and assess the direct and indirect significant effects of the project on specified environmental factors.

Definition of EIA

EIA supports the decision-making process as it is integrated into consenting processes for new development projects. This ensures that consent decisions are made in the knowledge of the environmental consequences of the project. Article 1(2)(g) of the 2014 EIA Directive states that:

"environmental impact assessment" means a process consisting of:

(*i*) the preparation of an environmental impact assessment report by the developer, as referred to in Article *5*(1) and (2);

(ii) the carrying out of consultations as referred to in Article 6 and, where relevant, Article 7;

(iii) the examination by the competent authority of the information presented in the environmental impact assessment report and any supplementary information provided, where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7;

(iv) the reasoned conclusion by the competent authority on the significant effects of the project on the environment, considering the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examination; and

(v) the integration of the competent authority's reasoned conclusion into any of the decisions referred to in *Article 8a.*"

For the purpose of this EIAR, CCC is the '*developer*' of the Proposed Development, while An Bord Pleanála is the '*competent authority*' responsible for undertaking the EIA and integrating its reasoned conclusion in this regard into the consent decision for the Proposed Development.

Appropriate Assessment

EU member states are required to establish a network of Natura 2000 sites under the obligations of Council Directive 92/43/EEC (Habitats Directive) and Council Directive 79/409/EEC (Birds Directive), as amended and codified in Council Directive 2009/147/EC.

The Habitat and Birds Directives require that the likely significant effects of any plan or project, alone, or in combination with, other plans or projects, on the Natura 2000 site network (i.e., European designated sites), should be assessed before any decision is made to allow that plan or project to proceed. This process, known as Appropriate Assessment (AA), comprises a number of steps and tests in place that should be undertaken sequentially and documented by competent authorities in making decisions related to the approval or denial of a plan or project that may impact on European designated sites) in accordance with Part XAB of the Planning Acts, which transposes the Birds and Habitats Directives.

An Appropriate Assessment Screening Report (AA Screening Report) was prepared for the Proposed Development. This report concluded that "*The proposed N25 Pedestrian and Cycle Bridge, Little Island, Cork, either alone or in-combination with other plans and / or projects, does not have the potential to significantly affect any European Site, in light of their conservation objectives*". It was therefore concluded that "*a Stage 2 Appropriate Assessment is deemed not to be required does require*" for the Proposed Development.

The AA Screening Report has been submitted with the application for approval, so as to enable the Board, as competent authority, to carry out the assessments required pursuant to Article 6(3) of Council Directive 92 / 43 / EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (*'the Habitats Directive'*).

1.3.3 Guidance

This EIAR has been prepared with due regard to the following overarching guidance on EIA:

- Department of the Environment, Community and Local Government (2013) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment;
- Department of Housing, Planning, Community and Local Government (2017) Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licensing Systems;
- Department of Housing, Planning and Local Government (2018) Circular PL 05/2018 Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive) And Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment;
- European Commission (1999) Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions;
- European Commission (2013) Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment;
- European Commission (2017) Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report;
- Government of Ireland (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018);
- Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports (hereafter referred to as *'the EPA Guidelines'*); and

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Additional topic-specific guidance used to undertake assessments is identified in Chapters 7 - 20, as appropriate.

1.3.4 Rating and Significance of Effects

The EIAR has determined likely significant effects and the description of likely significant effects in accordance with the EPA guidelines. Likely effects are those which are planned to take place and those which can be reasonably foreseen to be inevitable consequences of normal construction and operation of the Proposed Development. Significance of effects is understood to mean the importance of the outcome of the effect (i.e., consequence of change) and is determined by a combination of objective (scientific, often quantitative) and subjective (social, often qualitative) concerns.

The EPA's description of effects (as outlined in **Table 1.1**) has been used where practicable to ensure a robust assessment and a consistent approach to the description of effects within the EIAR. Where assessments are making use of standard, topic-specific guidelines and descriptions of effects, this has been identified in **Chapters 7 - 20** of this EIAR.

Table 1.1: Description of effects as per Table 3.4 of the EPA Guidelines (EPA, 2022)

Nature	Description	Definition
Quality of effects	Positive effect	A change which improves the quality of the environment (for example, by increasing species diversity; or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
	Neutral effect	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative / adverse effect	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance).
Significance of effects	Imperceptible effect	An effect capable of measurement but without significant consequences
	Not significant effect	An effect which causes noticeable changes in the character of the environment but without significant consequences
	Slight effect	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate effect	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
	Significant effect	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
	Very significant effect	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	Profound effect	An effect which obliterates sensitive characteristics.
Extent and context of	Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
effects	Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?).
Probability of effects	Likely effect	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely effect	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Duration and	Momentary effect	Effect lasting from seconds to minutes.
frequency of effects	Brief effect	Effect lasting less than a day.

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Nature	Description	Definition
	Temporary effect	Effect lasting less than one year.
	Short-term effect	Effect lasting one to seven years.
	Medium-term effect	Effect lasting seven to fifteen years.
	Long-term effect	Effect lasting fifteen to sixty years.
	Permanent effect	Effect lasting over sixty years.
Reversible effect Effects that can be undone, for example through remediation or not appeared.		Effects that can be undone, for example through remediation or restoration.
	Frequency of effects	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).
Type of effects	Indirect effect	Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative effect	The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
	Do-nothing effect	The environment as it would be in the future should the subject project not be carried out.
	Worst-case effect	The effects arising from a project in the case where mitigation measures substantially fail.
	Indeterminable effect	When the full consequences of a change in the environment cannot be described.
	Irreversible effect	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
	Residual effect	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
	Synergistic effect	Where the resultant effect is of greater significance than the sum of its constituents, (e.g., combination of SOx and NOx to produce smog).

1.3.5 Structure of the EIAR

This EIAR has been prepared to provide information on the likely significant effects of the project on the environment as per Schedule 6 of the European Union (Planning and development) (Environmental Impact Assessment) Regulations 2018, S.I. No. 296 of 2018. The following has been included:

- A description of the Proposed Development comprising information on the site, design, size and other relevant features of the Proposed Development;
- A description of the potential effects on the environment of the Proposed Development;
- A description of the features, if any, of the Proposed Development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset potential adverse effects on the environment of the development;
- A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the Proposed Development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the Proposed Development on the environment; and
- A non-technical summary of the information referred to in the above four points.

This EIAR comprises the following elements:

- The Non-Technical Summary. This summarises the findings of the EIAR in a clear, accessible format that uses non-technical language and supporting graphics. The non-technical summary describes the Proposed Development, existing environment, effects and mitigation measures and relevant aspects of the EIAR in a manner that can be easily understood by the general public;
- The substantive EIAR chapters include introductory chapters in addition to 'assessment' chapters for each environmental aspect in accordance with Article IV of the EIA Directive. The front-end chapters (Chapters 1 6) provide the relevant project context, whilst the assessment chapters (Chapters 7 20) provide a description of the relevant environmental aspects and likely significant effects with summary chapters provided thereafter (Chapter 21 and 22); and
- The technical documents that support the EIAR are cross-referenced in the main EIAR chapters to appendices. The appendices include other relevant drawings, modelling outputs, background reports and / or supporting documents and are included after the EIAR chapters.

1.4 Project Team

The engineering design team has been led by Arup on behalf of CCC.

This EIAR has been prepared by a multi-disciplinary consultancy team of competent experts, led by Arup.

Arup has been awarded an EIA Quality Mark by the Institute of Environmental Management and Assessment in recognition of its excellence in EIA activities. Further, all technical leads are deemed to be qualified and competent experts in their fields in accordance with Article 5(3) of the EIA Directive, given their academic qualifications, professional affiliations and professional experience on other EIARs for similar projects. Refer to **Table 1.2** for details on the competent experts that have prepared this EIAR.

Table 1.2 Competent experts undertaking EIAR

Торіс	Responsible competent expert – competency details	
Chapter 1 (Introduction)	Sinead Whyte, MSc CMIWEM, Arup Sinead Whyte is an Associate Director with Arup and has over 18 years' experience as an Environmental Consultant. She holds a MSc in Experimental Physics and is Chartered for over 16 years with the Institute of Water and Environmental Management. She has prepared numerous Air Quality and Climate Impact Assessments for infrastructural developments including DART Underground, M20 Cork to Limerick Motorway, M7 Osberstown Interchange and R407 Sallins Bypass and N9/N10 Kilcullen to Powerstown. Sinead presented expert witness evidence at the An Bord Pleanála oral hearings into these developments.	
	Simon Grennan, BA (Mod.), MSc, Arup Simon Grennan, BA (Mod.), MSc, Arup Simon Grennan is a Senior Environmental Consultant with Arup and has over 8 years' experience in the environmental sector. Simon holds an MSc in environmental Sciences from Trinity College Dublin. Simon has a wide range of experience in the environmental field, with specific experience in EIA coordination and preparation and waste management consultancy work. Simon has experience preparing and coordinating EIARs in a number of areas including residential/commercial developments, transport developments and industrial/manufacturing. Example projects include the BusConnects Tallaght/Clondalkin to City Centre EIAR, the Ticknick Park EIAR, the Greenlink Interconnector EIAR, the Arklow Flood Relief Scheme EIAR and the Arklow Wastewater Treatment Plant EIAR.	
	Alice Halpenny, MSc, Arup Alice Halpenny is a Graduate Environmental Consultant with Arup. Alice holds an MSc in Environmental Leadership from National University of Ireland, Galway. Alice has experience in EIAR preparation and waste management report preparation. Example projects include the preparation of BusConnects EIAR and the One Adelaide Road CDRWMP preparation.	
Chapter 2 (Background and Need for the Proposed Development)	Sinead Whyte See above	
	Simon Grennan See above	
	Alice Halpenny See above	
Chapter 3 (Alternatives Considered)	Eddie Feely, BSc, MIES, CEnv, Arup Eddie is an Associate with Arup and has over 21 years' experience as an Environmental Consultant. He holds a BSc in Environmental Pollution Science from the University of Glamorgan, UK and is a Member of the Institution of Environmental Sciences and is a Chartered Environmentalist. Eddie has managed the preparation of Environmental Impact Assessment Reports Statements for a number of infrastructure projects including High Speed Two Phase 2a (West Midlands to Crewe) in the UK, Curragh Racecourse Redevelopment, DART Underground, Dublin Airport Visual Control Tower and Wicklow Port Access and Town Relief Road. Eddie presented expert witness evidence at the DART Underground and Wicklow Port Access and Town Relief Road oral hearings.	
	Simon Grennan	

Торіс	Responsible competent expert – competency details
	See above
	Alice Halpenny
	See above
Chapter 4 (Description of	Eddie Feely
the Proposed Development)	See above
	Tim O' Sullivan Glynn, BE MSc CEng MIEI MICE, Arup
	Tim is a Senior Bridge Engineer with Arup and has over 9 years' experience as a bridge designer and project manager. Tim holds an M.Sc. in structural engineering and is a chartered engineer with the Institute of Civil Engineers for over 5 years. Tim has work experience with major consultants in the UK and New Zealand before moving to Arup and has been part of the design and project management team for numerous bridge and civil structural projects from design through to construction including the Christchurch Footbridge Reading, the Wichelstowe Footbridge Swindon, Springhead Bridge Ebbsfleet, Omaroro Reservoir strengthening peer review NZ, Edenderry Pedestrian and Cycle Bridge concept design and options assessment as well as numerous other projects.
	Simon Grennan
	See above
Chapter 5 (Construction	Eddie Feely
Strategy)	See above
	Tim O'Sullivan Glynn
	See above
	Simon Grennan
	See above
Chapter 6 (Planning and	Sinead Whyte
Policy)	See above
	Simon Grennan
	See above
	Alice Halpenny
	See above

Торіс	Responsible competent expert – competency details
Chapter 7 (Traffic and Transportation)	Gerna Van Jaarsveld, MSc, Arup Gerna is an Associate with Arup and has more than 22 years' experience as a Transport Planner, of which she has spent over 10 years in Ireland. She holds a Town and Regional Planning degree with a masters in Transport Planning and has experience in delivering a wide range of transport planning projects in the public and private sector. She has prepared a number of Traffic Impact Assessments for Environmental Impact Assessments in Ireland including Arklow Wind Farm, Lower Lee Flood Relief Scheme and North Irish Sea Array (NISA).
	Pedram Zand, MSc, Arup Pedram Zand is a Senior Transport Planner and has more than 12 years' experience in the field. Pedram holds a MSc in Urban Management and development from Erasmus University of Rotterdam. He has ample experience in managing projects and delivering high quality results. The projects he managed include transport strategies at different levels, the interaction between built environment and transport, works on the most important improvements to various aspects of public transport services, residential and commercial parking, CCAM (Connected, Cooperative and Automated Mobility) and the impact of its extensive use. These are some of the Projects he managed over the last years: Traffic Impact Statements for Mercy University Hospital, Cork- Moate First Masterplan, Moate- Smarte: The most effective improvements to shift more people to rail transport in Brussels & Flanders, Belgium- PPART: studying and preparing plans for residential parking spaces in several neighbourhoods in Brussels, Belgium- SUMI: Optimising public transport network design in order to enhance its use in Flanders, Belgium
Chapter 8 (Landscape and Visual)	David Bosonnet, BAgSc, MILI, CMLI, Brady Shipman Martin David Bosonnet is a Senior Landscape Architect and Partner with Brady Shipman Martin. David qualified from UCD in 1995 with a B.Ag.Sc. (Land Hort) and from TCD in 2000 with Dip. Information Systems. He is a Member of Irish Landscape Institute and Chartered Member of the Landscape Institute (UK). He has over 25 years' experience in preparing landscape and visual assessments and has prepared over 120no. LVIA reports for inclusion in EIA documents for a wide range of project types. David has extensive experience in landscape design/mitigation and implementation. He is co-author of TII's ' <i>Standards and Technical</i> <i>Guidance for Landscape Character Assessment and Landscape and Visual Assessment of Transport Infrastructure</i> '.
	George Dundon, BA, MLA, MLI, Brady Shipman Martin George Dundon is a Senior Landscape Architect with Brady Shipman Martin. George qualified from NUI Maynooth in 1995 with a B.A. (Sociology & Modern History) and from Edinburgh College of Art & Design, Heriott-Watt University in 1998 with Master Landscape Architecture (MLA). He is a Member of the Landscape Institute (UK) since 2002. He has over 25 years' experience in landscape architecture including landscape and visual appraisal, assessment, and preparation of LVIA reports for inclusion in EIA documents for a wide range of project types. George has extensive development master planning experience using context and environment led design with integrated landscape design/mitigation and enhancement.
Chapter 9 (Biodiversity)	Carl Dixon, MSc, DixonBrosnan Carl Dixon holds an Honours Degree (BSc) in Ecology and a Masters (MSc) in Ecological Monitoring from UCC. He is a senior ecologist who has over 25 years' experience in ecological assessment. Prior to setting up DixonBrosnan Environmental Consultants in 2000, Carl set up and ran Core Environmental Services which included REPS planning for landowners and ecological assessments. Carl has particular experience in freshwater ecology, including electrofishing fish stock assessments and water quality assessments. He also has considerable experience in habitat mapping and mammal ecology including survey work and reporting in relation to Badgers and bats. Other competencies include surveys for invasive species and bird surveys. Carl has extensive experience with regards to EIAR and NIS mitigation and impact assessment. He has experience in large-scale industrial developments with extensive experience in complex assessments as part of multi-disciplinary teams. Such projects include gas pipelines, incinerators, electrical cable routes, oil refineries and quarries.

Торіс	Responsible competent expert – competency details
	Sorcha Sheehy, PhD, DixonBrosnan Sorcha Sheehy, PhD, (Ecology/ornithology) is an ecologist and ornithologist who has worked for 15 years in environmental consultancy. She has worked on Screening / NISs for a range of small and large-scale projects with expertise in assessing impacts on birds. Sorcha's PhD research focused on bird behaviour at airports, where she studied bird avoidance behaviour and collision risk to aircraft. Her research involved field observations, post-mortem analysis and radar surveys. Sorcha has worked on bird collision risk assessments at airports throughout Ireland including Dublin airport, Cork airport, Shannon airport and Kerry airport. During her consultancy work Sorcha carried out field-based surveys and environmental reports including NIS, AA screening and EIARs. Notable projects include the Arklow Bank Wind Park, Indaver Ireland Waste Management Facility at Ringaskiddy, Irving Oil Whitegate Refinery (IOWR), Shannon LNG and Greenlink Interconnector.
Chapter 10 (Noise and Vibration)	Sinead Whyte See above
	Dean Redmond, BSc, Arup Dean Redmond is a Graduate Acoustician with Arup. He holds a BSc in Physics from University College Dublin. He has previously worked on noise and vibration assessments for infrastructural developments, industrial developments and commercial developments including DART+ Coastal North, The North Irish Sea Array (NISA) offshore wind energy project EIAR, IDL Midleton distillery expansion EIAR, Irish Cement noise improvements for EPA licencing along with several due diligence assessments for confidential clients for work on data centres.
Chapter 11 (Air Quality)	Sinead Whyte See above
	Simon Grennan See above
Chapter 12 (Climate)	Sinead Whyte See above
	Simon Grennan See above
Chapter 13 (Archaeology, Architectural and Cultural Heritage)	Avril Purcell, MA, MIAI, Lane Purcell Avril is a consultant archaeologist with over 20 years' experience in commercial archaeology. She has been company principle of Lane Purcell Archaeology for the last 14 years and before that worked for Sheila Lane & Associates, which developed into Lane Purcell Archaeology. Avril has extensive experience in all aspects of archaeological consultancy from preplanning stage right through resolution through archaeological excavation. She has carried out a number of large scale excavation projects in advance of re-development most recently in Cork city on the North Main Street. Avril has compiled a large number of archaeological and cultural heritage sections of EIARs and given expert witness evidence at oral hearings.

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Торіс	Responsible competent expert – competency details		
	Avril has a BA in Archaeology and History and MA in Archaeology both from UCC and is a member of the Institute of Archaeologists of Ireland.		
	Musetta O'Leary, BA, MA, Lane Purcell		
	Musetta O'Leary has over 15 years of experience in all aspects of archaeological consultancy. Musetta primarily manages the archaeological and cultural heritage components of projects at the pre-planning consultancy stage and has co-ordinated and written the Cultural Heritage section of a large number of diverse EIAR/EIS projects for road construction, industrial, residential and sporting developments, energy delivery and quarrying. Musetta has presented expert witness evidence at the An Bord Pleanála oral hearings. Some of the various projects include the M20 Cork to Limerick Motorway; Belvelly Port Facility, Marino Point, Co. Cork; Horizon Mall, Parkway, Co. Limerick; Horgan's Quay, Mixed Use Development, Cork City, Shannon LNG Terminal, Co. Kerry, Shronagree Windfarm, Ballydehob and Coolbane Quarry, Co. Cork.		
Chapter 14 (Population and	Simon Grennan		
Human Health)	See above		
	Alice Halpenny		
	See above		
Chapter 15 (Resources and	Janet Lynch, BEng, MCTWM, MIEI CEng, Arup		
Waste)	Janet Lynch is an Associate with Arup with over 20 years' experience in circular economy, resource and waste management, EIAR and Industrial Emissions Licensing. Skills include Construction and operational resource and waste management strategies and plans, material reuse, recycling and disposal technologies. Planning and EIA project management includes energy, renewables, industrial and infrastructure Projects; Industrial Emissions (IE) License applications & review includes waste, biomass, oil and gas, energy, cement and the pharmaceutical sector. Janet holds an honours degree in Civil and Environmental Engineering from University College Cork, a FETAC Certificate in Waste Facility Management and a Certificate in Applied Project Management from the IEI and University Limerick. She is a Chartered member of the Chartered Institution of Wastes Management (MCTWM) and a Chartered Member of Engineers Ireland.		
	Simon Grennan		
	See above		
Chapter 16 (Water)	Mesfin Desta, PhD, FIEI, Arup		
	Mesfin Desta is a Principal Hydrologist with Arup and has over 17 years of experience as a hydrologist. He holds a PhD in Civil Engineering from UCD and MSc in Engineering Hydrology from NUI Galway. He is a chartered member and Fellow of Engineers Ireland. He was responsible for the preparation of Water/Hydrology Chapters of EIAR's for various projects including Galway Bus Connect, N24 Waterford to Cahir, NISA Offshore Windfarm, and various Strategic Housing Developments.		
Chapter 17 (Land, Soils,	Marie Fleming BSc (Hons), MSc. Arup		
Geology and Hydrogeology)	Marie is an Associate working in the Ground Engineering team in Arup and has a Bachelor of Science (Earth Sciences) honours degree from University College Cork and a Master's Degree in Engineering Geology from Imperial College London. Marie has over 18 years professional experience on large infrastructure projects and is a Professional Geologist (PGeo) with the Institute of Geologists of Ireland (IGI), a Chartered European Geologist (EurGeol) with the European		

Торіс	Responsible competent expert – competency details		
	Federation of Geologists and a Fellow of the Geological Society of London (GSL). She has prepared numerous Land, Soils, Geology & Hydrogeology Impact Assessments for infrastructural developments including DART Underground, the M7 Osberstown Interchange, the R407 Sallins Bypass and the North Irish Sea Array (NISA) offshore windfarm.		
	Sarah Ryan, BE (Civil), MIEI, Arup		
	Sarah is a Senior Ground Engineer with Arup and has over 10 years' experience in the ground engineering sector. Sarah holds a BE in civil engineering from University College Dublin. Sarah has a wide range of experience across, ground investigation, geotechnical risk management, design and construction which she draws on when preparing EIA. Sarah has prepared numerous land soils, geology and hydrogeology chapters often in parallel to carrying out the preliminary geotechnical design for the same project. Example EIAs for which Sarah contributed to the Land, soils, geology and hydrogeology assessment / chapter include all 12 BusConnects Dublin EIARs, BusConnects Galway Cross City Link EIAR, Kenmare WWTP EIAR and the National Maternity Hospital EIAR.		
Chapter 18 (Material	Simon Grennan		
Assets)	See above		
	Alice Halpenny		
	See above		
Chapter 19 (Risk of Major	Simon Grennan		
Accidents and / or Disasters)	See above		
	Alice Halpenny		
	See above		
Chapter 20 (Cumulative and Interactive Impacts)	Simon Grennan		
and interactive impacts)	See above		
	Alice Halpenny		
	See above		
Chapter 21 (Summary of Mitigation and Monitoring	Simon Grennan		
Mitigation and Monitoring Measures)	See above		
	Alice Halpenny		
	See above		

Торіс	Responsible competent expert – competency details	
Chapter 22 (Summary of Residual Impacts)	Simon Grennan See above	
	Alice Halpenny See above	

1.5 Consultation Undertaken

1.5.1 Overview

Extensive consultation has been undertaken with a range of stakeholders during the development of the EIAR and statutory consent application to:

- Provide information on the Proposed Development;
- Ascertain and understand the views of stakeholders; and
- Seek input from stakeholders on the design, construction and assessment aspects of the Proposed Development.

It should be noted that this section describes project-wide consultation that has been undertaken. Where appropriate, **Chapters 7-20** identify specific consultation that has been undertaken to support individual assessments and assessment chapters.

1.5.2 Consultation with relevant stakeholders

During the preparation of this EIAR, several statutory and non-statutory bodies were consulted to ensure that issues relating to the Proposed Development were addressed. The parties consulted are detailed in **Table 1.3**.

Table 1.3: Relevant stakeholders

Stakeholder		
An Taisce	Gas Networks Ireland	
Bat Conservation Ireland	Geological Survey of Ireland	
Birdwatch Ireland	Health and Safety Authority	
Department of Agriculture, Food and the Marine	Health Service Executive	
Department of Enterprise, Trade and Employment	Heritage Council	
Department of Rural and Community Development	Inland Fisheries Ireland	
Department of the Environment, Climate and Communications	Irish Raptor Study Group	
Department of Housing, Local Government and Heritage - Development Applications Unit	Irish Wildlife Trust	
EirGrid	Office of Public Works	
Environmental Protection Agency	Transport Infrastructure Ireland	
Fáilte Ireland		

A high-level summary of the responses received are outlined in Table 1.4.

Table 1.4: Consultation responses

Stakeholder	Response
An Taisce	No response
Bat Conservation Ireland	Bat Conservation Ireland acknowledged receipt of the request for consultation but noted that they did not have the capacity to comment on planning issues.
Birdwatch Ireland	No response
Department of Agriculture, Food and Marine	No response

Stakeholder	Response
Department of Enterprise, Trade and Employment	No response
Department of Rural and Community Development	No response
Department of the Environment, Climate and Communications	The Department of the Environment, Climate and Communications acknowledged receipt of the request for consultation. No response received was received, however.
Department of Housing, Local Government and Heritage - Development Applications Unit	The Development Applications Unit noted that a number of invasive plant species are known to occur in the general area and otters have also been recorded and have been found dead on the adjacent road. The Department recommended that these factors should be included in the EIAR.
Eirgrid	No response
Environmental Protection Agency	The Environmental Protection Agency acknowledged receipt of the request for consultation. No response received was received, however.
Fáilte Ireland	No response
Gas Networks Ireland	No response
Geological Survey of Ireland	No response
Health and Safety Authority	No response
Health Service Executive	The HSE welcomed the Proposed Development as it will support objectives of the Healthy Ireland Strategy and other Health Strategies that encourage physical exercise and sustainable transport. It noted specific EIA published guidance that should be followed for the EIAR and identified appropriate methodology to assess the potential human health impacts arising from the Proposed Development. The HSE also suggested that a Construction Environmental Management Plan be prepared as part of the EIAR that addresses a range of topics, including dust, pest control, interruption to services, waste routes and collection, a waste management plan for the Construction Phase and servicing of the temporary construction compounds.
Heritage Council	No response
Inland Fisheries Ireland	No response
Irish Raptor Study Group	No response
Irish Wildlife Trust	IWT acknowledged receipt of the request for consultation and noted that they did not have the staff capacity to respond to the consultation but would endeavour to respond if possible. No response received was received, however.
Office of Public Works	The OPW recommended that a flood risk assessment be carried out in accordance with the guidelines, "The Planning System and Flood Risk Management" in support of the Proposed Development.
Transport Infrastructure Ireland	Transport Infrastructure Ireland acknowledged receipt of the request for consultation. No response received was received, however.

1.5.3 Landowners

Ongoing engagement took place with landowners, and / or anyone with an interest in potentially impacted properties or lands within the footprint of the Proposed Development as the design development progressed.

Privately owned lands within the footprint of the Proposed Development will be acquired by CCC. The private landowners that have been consulted with by CCC are:

- Irish Rail;
- Radisson Blu Hotel & Spa, Little Island;
- Private owner of land to south of N25; and
- O'Flynn Developments.

Over the course of the engagements, affected property owners had the opportunity to discuss, among other things, the following aspects with CCC:

- Development proposals and potential impacts;
- Timelines for the design development and associated EIAR assessment;
- Procedural matters such as planning and CPO process; and
- Specific details of the impact of the Proposed Development on landowner property, including approximate extent of encroachment.

1.6 Difficulties Encountered during the Preparation of the EIAR

No difficulties were encountered during the preparation of this EIAR that were considered to have a material impact on the EIAR.

1.7 References

Cork County Council (2022) Cork County Development Plan (2022-2028).

Department of Housing, Planning and Local Government (2018) Circular PL 05/2018 -Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive) And Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Department of Housing, Planning, Community and Local Government (2017) Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems.

Department of Housing, Planning, Community and Local Government (2018) Circular PL 1/2017 -Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition.

Department of the Environment, Community and Local Government (2013) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (The Birds Directive).

Environmental Protection Agency (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

European Commission (1999) Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions.

European Commission (2012) Interpretation suggested by the Commission as regards the application of the EIA Directive to ancillary/associated works.

European Commission (2013) Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment.

European Commission (2017) Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report.

European Communities (Birds and Natural Habitats Regulations; S.I. No. 477 of 2011)

European Union (2013) Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment.

Government of Ireland (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018).

National Roads Authority (2008) Environmental Impact Assessment of National Road Schemes - A Practical Guide.

Planning and Development Regulations, 2001 (S.I. 600 of 2001) as amended.

Roads Act (1993), as amended, National Roads Authority.