



# **Volume 2 Environmental Impact Assessment Report**

**FOR**

**BLANCHARDSTOWN SITE B**

**AT**

**SITE B (LIBRARY CAR PARK) AND SITE C (BLUE CAR  
PARK) SITES AT ROAD C AND ROAD D,  
BLANCHARDSTOWN TOWN CENTRE, COOLMINE,  
DUBLIN 15**

**MARCH 2022**

**ON BEHALF OF**

**Blanche Retail Nominee Limited**

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- Appendix E Photo Montage Report ( Visual Labs)
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- Appendix H Traffic Data

# 1 INTRODUCTION AND METHODOLOGY

## 1.1 Introduction

This Environmental Impact Assessment Report (**EIAR**) has been commissioned by the applicant, Blanche Retail Nominee Limited, in support of an application for the Mixed Use Development on Development Sites located at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

This EIAR has been compiled in accordance with all current legislation and best practice guidance. This Chapter describes the methodology by which the Environmental Impact Assessment (**EIA**) was carried out and the EIAR was completed. The methodology used is broadly consistent across all chapters in order to ensure the EIAR is clear and easy to navigate.

The Proposed Development (as defined in Chapter 2) comprises of:

The Proposed mixed use Development consists of the construction of 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, in six no. buildings (Blocks A, B, C, D, J and K), ranging from 5 no. to 13 no. storeys in height. The development includes for an extension of the existing multi storey car park from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

The construction of 2 no. additional levels (increasing from 4 no. levels to 6 no. levels) on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the Blocks A, B, C, D, J and K. The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park. The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks. Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the application site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the site boundary.

Provision of telecommunications infrastructure at roof level comprising of 6 no. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3 no. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

The proposed development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2 no. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and

excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.

## 1.2 Definition of EIA and EIAR

EIA is a systematic examination of the potential impacts of a Proposed Development on the environment. In assessing the environmental impacts this EIAR will evaluate the existing situation and assess any potential impacts of the Proposed Development. Where potential impacts are identified proposed mitigation measures will be identified. In addition, the in-combination effects of any other known plans or projects will be identified and assessed.

Under Schedule 5 of the Planning and Development Regulations 2001, as amended (the **Planning Regulations**), an EIAR (formerly an EIS) is required to accompany certain planning applications for specified projects as part of the EIA process.

The EIAR describes the outcomes of the iterative EIA process which was progressed in parallel with the project design process. In doing so, it forms the first part of the EIA process that will be completed by Fingal County Council, as the competent authority, which in turn will be required to examine, analyse and evaluate the direct and indirect effects of the development on the various factors listed in Directive 2011/92/EU, as amended by 2014/52/EU (the **EIA Directive**).

*"The EIAR should be prepared at a stage in the design process where changes can still be made to avoid adverse effects. This often results in the modification of the project to avoid or reduce effects through redesign" (EPA, 2017)*

Where significant and likely environmental effects are identified that are unacceptable, the EIA process aims to quantify and minimise the effects of the impact that the specified development has on the environment through appropriate mitigation measures and where necessary, subsequent monitoring.

This process is illustrated in Fig 1-1.



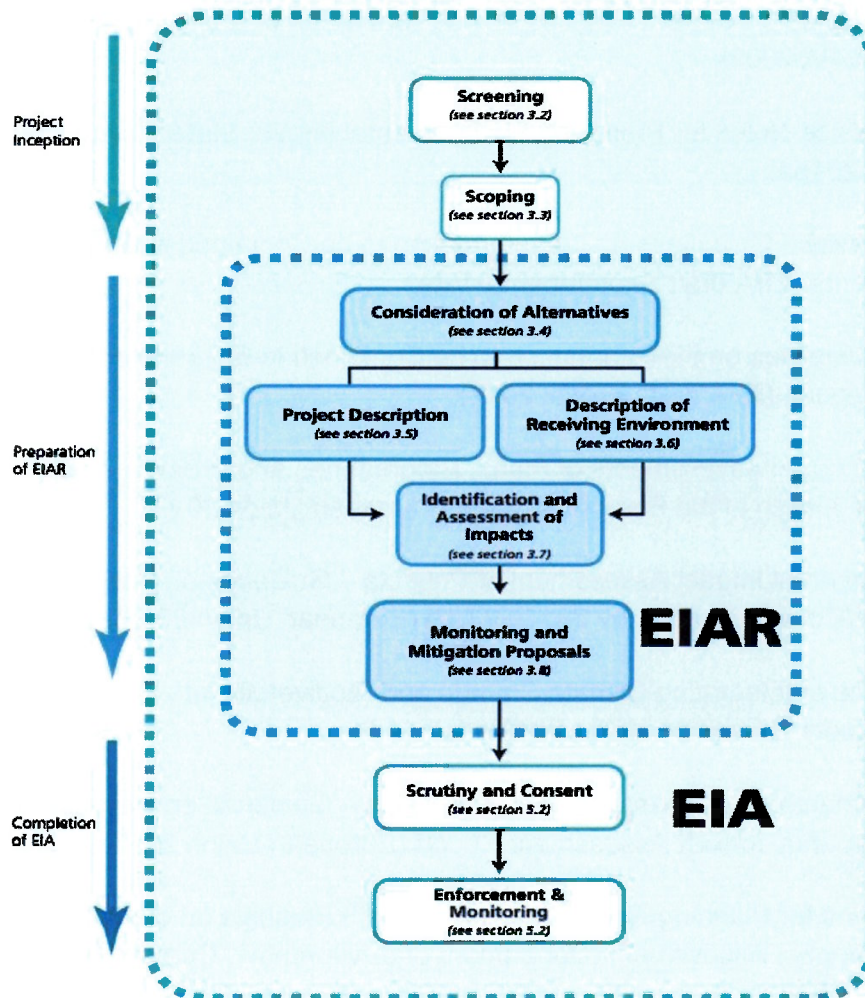


Figure 1-1 EIA Process

The purpose of the EIAR is to provide the Planning Authority with information on the likely and significant effects on the environment by the Proposed Development. This EIAR was prepared in parallel with the project design process and reflects the potential cumulative impact of other developments.

### 1.3 EIA Legislation

The EIA Directive requires EIA to be carried out for certain projects as listed in Annex I of the Directive. The EIA Directive is transposed into Irish law through the Planning and Development Act 2000 (as amended) (the **Planning Act**) and the Planning Regulations (2001- 2021).

### 1.4 EIA Guidelines

This EIAR has been prepared in accordance with all relevant guidance. The documents listed below are common to all chapters. Additional specific guidelines will be referred to in each specific chapter.

- Guidelines on the Information to be contained in Environmental Impact Statements (EPA 2002);

- Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA 2003);
- Draft Advice Notes for Preparing Environmental Impact Statements (EPA draft September 2015a);
- Draft Revised Guidelines on the Information to be Contained in Environmental Impact Statements (EPA draft September 2015b);
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA draft August 2017);
- Environmental Assessments of Plans, Programmes and Projects – Rulings of the Court of Justice of the European Union (European Union 2017);
- Environmental Impact Assessment of Projects – Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU) (European Union 2017);
- Guidance of Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Union 2013);
- Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report (European Union 2017);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Environment, Community and Local Government 2013);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Government of Ireland 2018);
- 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 2017);
- 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 and Local Government 2018);
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Communities 1999); and
- Implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (European Communities 2021).
- Appropriate Assessment Screening for Development Management; OPR Practice Note PN01(Office of the Planning Regulator March 2021).

The EIA Directive defines EIA as a process. Article 1(2)(g) states that EIA means:

*“(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, taking into account 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”.*

The EIA Directive requires the EIAR to identify, describe and assess, in an appropriate manner and in light of each individual case, the direct, indirect and cumulative significant effects of the Proposed Development on factors of the environment including:

- Population and human health
- Biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC (respectively, the Habitats Directive and the Birds Directive)
- Land, soil, water, air, and climate
- Material assets, cultural heritage, and the landscape
- The interaction between the factors referred to in points (a) to (d)

## 1.5 Screening for EIA

'Screening' is the term used to describe the process for determining whether a proposed development requires an EIA by reference to mandatory legislative threshold requirements or in the case of sub threshold development, by reference to the type and scale of the proposed development and the significance or the environmental sensitivity of the receiving baseline environment.

Annex 1 of the EIA Directive requires as mandatory an EIA for all development projects listed therein.

Schedule 5, Part 1, of the Planning Regulations transposes Annex 1 of the EIA Directive directly into Irish planning legislation. An EIAR is required to accompany a planning application for development of a class set out in Schedule 5, Part 1 of the Planning Regulations which exceeds a limit, quantity or threshold set for that class of development.

Schedule 5, Part 2 of the Planning Regulations defines projects that are assessed on the basis of set mandatory thresholds for each of the project classes including:

*Schedule 5, Part 2*

*10. Infrastructure projects*

*10. (b)(i) Construction of more than 500 dwelling units.*

*10 (b)(ii) Construction of a car-park providing more than 400 spaces, other than a car-park provided as part of, and incidental to the primary purpose of, a development.*

*10(b)(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.*

*(In this paragraph, "business district" means a district within a city or town in which the predominant land use is retail or commercial use.)*

The Proposed Development is located in an Urban Area. The overall site area is 2.55 hectares which exceeds the 2 hectare threshold. Therefore a mandatory EIAR is required for this application.

## **1.6 Scope of the EIAR**

'Scoping' is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in EC Guidance on EIA Scoping 2001<sup>1</sup> as:

*'Determining the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR'*

The content of this EIAR was informed by a scoping process carried out by the applicant, design team and EIAR consultants to identify the core issues likely to be most important during the EIA process.

The EIAR prepared for the Proposed Development has endeavoured to be as thorough as possible and therefore all of the issues listed in Schedule 6, Sections 1 and 2 of the Planning Regulations have been addressed in the EIAR.

The scope of this EIAR has had regard to the documents listed in Section 1.4 above, together with:

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<sup>1</sup> Guidance on EIA Scoping European Commission June 2001

- The requirements of Part X of the Planning Act and also Part 10 of the Planning Regulations;
- The requirements of the Fingal County Development Plan 2017-2023;
- Relevant Regional and National Planning Policy Documents;
- The receiving environment and any vulnerable or sensitive local features and current uses;
- Previous relevant planning history and applications that have been submitted on the subject and adjoining lands;
- The likely and significant impacts of the Proposed Development on the environment; and
- Available mitigation measures for reducing or eliminating any potentially significant undesirable impacts.

In addition, the individual chapters of this EIAR should be referred to for further information on the documents consulted by each individual consultant.

## **1.7 Purpose and Objectives of the EIAR**

The purpose of this EIAR is to assist in the EIA process, by identifying likely significant environmental impacts resulting from the Proposed Development, to describe the means and extent by which they can be reduced or mitigated, to interpret and communicate information about the likely impacts and to provide an input into the decision making and planning process.

The fundamental principles to be followed when preparing an EIAR are:

- Anticipating, avoiding, and reducing significant effects;
- Assessing and pursuing preventative action;
- Maintaining objectivity;
- Ensuring clarity and quality;
- Providing relevant information to decision makers; and
- Facilitating public and stakeholder consultation.

EIA is an iterative process. The EIAR captures this assessment process and describes its outcomes. The EIAR documents the consideration of environmental effects and provides transparent, objective and replicable documentary evidence of the EIA evaluation and decision-making processes.

The EIAR provides information on any identified effects arising as a consequence of the Proposed Development and which:



- Are environmentally based;
- Are likely to occur; and
- Have significant and adverse effects on the environment.

It also documents how the design of the Proposed Development incorporates measures for the purposes of impact avoidance, reduction or amelioration; as well as to explain how significant adverse effects will be avoided.

The key objective of this EIAR is to inform the Planning Authority on the acceptability of the Proposed Development, in carrying out an EIA, in order to reach a decision in the full knowledge of the Proposed Development's likely significant impacts on the environment, if any.

### **1.8 Format and Structure of this EIAR**

The formation of an EIAR necessitates the co-ordination and collation of associated, yet diverse specialised areas of assessment. The EIA approach involves the examination of each environmental factor, describing the existing baseline environment, the Proposed Development, its likely impacts and direct and indirect significant effects pertaining to that environmental factor and mitigation measures, where appropriate.

The topics examined in this EIAR are categorised under the environmental factors prescribed under the EIA Directive:

- Population and Human Health
- Biodiversity
- Land & Soils
- Water
- Air
- Climate
- Material Assets
- Cultural Heritage
- Landscape

The expected effects deriving from the vulnerability of the Proposed Development to risks of major accidents and/or disasters must also be examined.

The structure of the EIAR is set out in Table 1-1 below.

*Table 1-1: Structure of the EIAR*

Chapter	Title	Content
1	Introduction and Methodology	Chapter 1 sets out the purpose, methodology and scope of the document.
2	Description of the Proposed Development & Assessment of Alternatives	As required under Article 5(1)(a), Chapter 2 provides a description of the site, design and scale of Proposed Development, and, as required under Article 5(d), an evaluation of the reasonable alternative design approaches.
3	Planning and Development Context	Chapter 3 sets the national, regional and local policy framework for the Proposed Development.
4	Population and Human Health	Chapter 4 covers the requirement for assessment on potentially significant effects to population and human health as required under Article 3(1)(a).
5	Biodiversity	Chapter 5 covers the requirement of Article 3(1)(b) to assess potentially significant effects on biodiversity (which previously referred only to 'fauna and flora'), having particular attention to species and habitats protected under the Habitats Directive and the Birds Directive.
6	Land and Soils	Chapter 6 covers the requirement under Article 3(1)(c) on Land and Soil to assess the type of soil and geology in the area of the Proposed Development and identifies any potentially significant effects.
7	Hydrology	Chapter 7 covers the requirement under Article 3(1)(c) to assess potentially significant effects to water quality arising from the Proposed Development. This chapter will assess any potential effects from pollution and discharges to surface water.
8	Air Quality and Climate	Chapter 8 covers the requirement under Article 3(1)(c) on Air to assess potentially significant effects to air quality in the surrounding environment.
9	Microclimate	Chapter 9 covers the requirement under Article 3(1)(c) on Climate to assess potentially significant effects to air quality in the surrounding environment.
10	Noise and Vibration	Chapter 10 covers the requirement to assess potentially significant effects from airborne noise and vibration as required under Article 3(1)(a) on Human Health.
11	Landscape and Visual Amenity	Chapter 11 covers the requirement under Article 3(1)(d) to assess potentially significant effects on the landscape. This chapter will assess any potential visual impacts to landscape caused by the Proposed Development.
12	Archaeology and Cultural Heritage.	Chapter 12 covers the requirement under Article 3(1)(d) to assess potentially significant effects on cultural heritage.



13	Material Assets _Traffic, Utilities and Waste Management	Chapter 13 covers the requirement under Article 3(1)(d) to assess potentially significant effects on material assets. This chapter will identify impacts to existing utilities and infrastructure from the development of the Proposed Development. Article 5(1), Annex IV, point 1(d) requires estimates of quantities and types of waste produced during construction and operation phase. Chapter 12 will also present an assessment of how resources and waste will be managed for the Proposed Development.
14	Risk Management	Chapter 14 covers the requirement under Article 3(2) to include the expected effects deriving from the vulnerability of the Proposed Development to risks of major accidents and/or disasters.
15	Interactions	As required under Article 3(1)(e), Chapter 15 provides an assessment of the interaction between all of the environmental aspects referred to in this EIAR.
16	Mitigation and Monitoring	Chapter 16 describes mitigation and monitoring as required under Article 5(1) in order to avoid, prevent, reduce, or if possible, offset any identified significant adverse effects on the environment and, where appropriate, describes any proposed monitoring arrangements.

This approach employs standard descriptive methods, replicable prediction techniques and standardised impact descriptions to provide an appropriate evaluation of each environmental topic under consideration.

## 1.9 Methodology Used to Produce this EIAR

The methodology employed to produce this EIAR is detailed in Table 1-2. The objective is to evaluate each environmental topic, both individually and collectively, in a systematic and objective manner.

The methodology will outline the methods used to describe the baseline environmental conditions as well as predict the likely impacts on the environment of the Proposed Development. The data and survey requirements for each chapter will vary depending on the environmental topic and will be chosen by the particular specialist based on relevant legislation, best practice guidance, policy requirements, and professional judgement. Similarly, the study area is also defined for each environmental topic based on professional judgement and experience.

All environmental topics require desktop reviews of all relevant data at a minimum. These desktop studies are then supplemented by field studies and consultations with relevant stakeholders, for example interested parties, statutory bodies and local authorities, as required for each environmental topic.

An outline of the methodology employed consistently in each chapter of the EIAR to examine each environmental topic is provided below:

*Table 1-2: Methodology Employed to Produce each EIAR Chapter*

Introduction	Provides an overview of the specialist area and specifies the specialist who prepared the assessment.
Study Methodology	This subsection outlines the method by which the relevant impact assessment has been conducted within that chapter.
The Existing Receiving Environment (Baseline Situation)	This section will describe and assess the receiving environment, the context, character, significance and sensitivity of the baseline receiving environment into which the Proposed Development will fit. This analysis also takes account of any other Proposed Developments that are likely to proceed in the immediate surroundings.
Characteristics of the Proposed Development	<p>Consideration of the '<i>Characteristics of the Proposed Development</i>' allows for a projection of the '<i>level of impact</i>' on any particular aspect of the environment that could arise.</p> <p>For each chapter those characteristics of the Proposed Development which are relevant to the area of study are described; for example, the chapter on landscape and visual impact addresses issues such as height, design and impact on the surrounding landscape.</p>
Potential Impact of the Proposed Development	<p>This section provides a description of the specific, direct and indirect, effects that the Proposed Development may have. This analysis is provided with reference to both the Existing Receiving Environment and Characteristics of the Proposed Development sections, while also referring to the: (i) magnitude and intensity, (ii) integrity, (iii) duration and (iv) probability of impacts.</p> <p>The assessment addresses whether the impacts are direct, indirect, secondary or cumulative in nature. It also looks at the timescale of such impacts e.g. are they short, medium, long-term, and are they of a temporary, permanent, continuous or intermittent nature, and are they positive or negative impacts. The impact interactions are also addressed.</p>
Do Nothing Impact	In order to provide a qualitative and equitable assessment of the Proposed Development, this section considers the Proposed Development in the context of the likely impacts upon the receiving environment should the Proposed Development not take place.
Avoidance, Remedial and Mitigation Measures	<p>This section of each chapter describes the mitigation measures which are required. The requirement to describe mitigation measures is laid out in the EIA Directive, as implemented by the Planning Act and the Planning Regulations.</p> <p>Avoidance, remedial and mitigation measures describe any corrective or mitigative measures that are either practicable or reasonable, having regard to the potential impacts of the Proposed Development. This includes avoidance, reduction and remedy measures as set out in Section 4.7 of the Development Management Guidelines 2007, to reduce or eliminate any significant adverse impacts identified.</p>
Residual Impacts of the Proposed Development	This section allows for a qualitative description of the resultant specific direct, indirect, secondary, cumulative, short, medium and long-term, temporary, permanent, continuous, or intermittent, positive and negative effects as well as impact interactions which the Proposed Development may have, assuming all mitigation measures are fully and successfully applied.

Monitoring	This involves a description of monitoring in a post-development phase, if required. This section addresses the effects that require monitoring, along with the methods and the agencies that are responsible for such monitoring.
Reinstatement	While not applicable to every aspect of the environment considered within the EIAR, certain measures may need to be proposed to ensure that in the event of the proposal being discontinued, there will be minimal impact to the environment.
Interactions	This section provides a description of impact interactions together with potential indirect, secondary and cumulative impacts.
Difficulties Encountered in Compiling Information	The EIA Directive requires that the EIAR includes 'details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved' (EIA Directive, Annex IV, Part 6). Each chapter that contains an environmental baseline and assessment contains a section outlining any difficulties encountered in compiling that chapter.

## 1.10 EIAR Project Team

Table 1-3: EIAR Project Team

Chapter	Consultant Name and address	Specialist Area
<b>1.0 Introduction and Methodology including Non-Technical Summary</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Janet O'Shea	Multidisciplinary Environmental Consultants
<b>2.0 Project Description and Alternatives Examined</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Nikita Coulter	Multidisciplinary Environmental Consultants
<b>3.0 Planning &amp; Policy Context</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Mairead Foran	Multidisciplinary Environmental Consultants
<b>4.0 Population and Human Health</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Kamala Yagubova	Multidisciplinary Environmental Consultants

<b>5.0 Biodiversity</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Liam Gaffney	Multidisciplinary Environmental Consultants
<b>6.0 Land and Soils</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Gareth Carroll / Claire Clifford	Multidisciplinary Environmental Consultants
<b>7.0 Hydrology &amp; Water</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Gareth Carroll / Claire Clifford	Multidisciplinary Environmental Consultants
<b>8.0 Air Quality &amp; Climate</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Aoife Grogan	Multidisciplinary Environmental Consultants
<b>9.0 Microclimate</b>	GIA, 77 Lower Camden Street, Dublin, Ireland, D02 XE80	Chartered Surveyors
<b>10.0 Noise and Vibration</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Laura Griffin	Multidisciplinary Environmental Consultants
<b>11.0 Landscape &amp; Visual Amenity</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Mairead Foran / Dara Hilliard	Multidisciplinary Environmental Consultants
<b>12.0 Archaeology, Architectural, and Cultural Heritage</b>	Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN  Laura Griffin	Multidisciplinary Environmental Consultants
<b>13.0 Material Assets: Traffic, Waste, and Utilities</b>	CSEA, 3rd Floor The Highline, Bakers Point, Pottery Road,	Multidisciplinary Consulting Engineers

	<p>Dun Laoghaire, Co. Dublin, A96 KW29.</p> <p>Carol Diaz Rosario</p> <p>Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN</p> <p>Nikita Coulter</p>	Multidisciplinary Environmental Consultants
<b>14.0 Risk Management</b>	<p>Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN</p> <p>Janet O'Shea/ Nikita Coulter</p>	Multidisciplinary Environmental Consultants
<b>15.0 Interactions</b>	<p>Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN</p> <p>Louise Hewitt</p>	Multidisciplinary Environmental Consultants
<b>16.0 Mitigation and Monitoring Measures</b>	<p>Enviroguide Consulting, 3D Core C, The Plaza, Park West, D12F9TN</p> <p>Louise Hewitt</p>	Multidisciplinary Environmental Consultants

### 1.11 Non-Technical Summary

A Non-Technical Summary of the EIAR has also been prepared. The EIA Directive states that one of the objectives of the EIA process is to ensure that the public are fully aware of the environmental implications of any decisions. EPA Guidelines note that the non-technical summary of the EIAR should facilitate the dissemination of the information contained in the EIAR and that the core objective is to ensure that the public is made as fully aware as possible of the likely environmental impacts of projects prior to a decision being made by Fingal County Council. A Non-Technical Summary of the EIAR has therefore been prepared which summarises the key environmental impacts and is provided as a separately bound document.

### 1.12 Links between EIAR and Appropriate Assessment

A Screening Report for Appropriate Assessment (**AA**) has been carried out for the Proposed Development to determine if there is a risk of effects to any Natura 2000 site. As the AA screening screened out potential impacts on any Natura 2000 sites, a full Natura Impact Statement (**NIS**) was not required.

While AA is required by the proposer of any plan or project likely to have an adverse effect on a Natura 2000 site, EIA is required for projects listed in Annex I of the EIA Directive. The requirement for EIA relative to projects listed in Annex II of the EIA Directive is determined on



a case by case basis. While these two different types of assessment are independent and are required by separate legislation, namely the Birds and Habitat Directives (i.e. AA) and the EIA Directive (i.e. EIAR) there is a degree of overlap, particularly in the biodiversity chapter of the EIAR.

### **1.13 Availability of EIAR Documents.**

A copy of this EIAR document and Non-Technical Summary is available for purchase at the offices of Fingal County Council at a fee not exceeding the reasonable cost of reproducing the document.

### **1.14 Statement of Difficulties Encountered**

No exceptional difficulties were experienced in compiling the necessary information for the EIAR. Where any specific difficulties were encountered these are outlined in the relevant chapter of the EIAR.

### **1.15 Quotations**

The application is also accompanied by a Non-Technical Summary of the EIAR, which is laid out in a similar, but condensed format to the main EIAR. The structure, presentation and the Non-Technical Summary of the EIAR, as well as the arrangements for public access, all facilitate the dissemination of the information contained in the EIAR. The core objective is to ensure that the public and local community are aware of the likely environmental impacts of the Proposed Development prior to the granting of consent.

However, it is important to acknowledge that the EIAR by its nature contains statements about the Proposed Development, some of which are positive and some less than positive. Selective quotation or quotations out of context can give a very misleading impression of the findings of the study. Therefore, the study team urge that quotations should, where reasonably possible, be taken from the conclusions of specialists' sections or from the Non-Technical Summary and not selectively.

The EIA Regulations require that difficulties such as technical deficiencies, lack of information or knowledge encountered in compiling any specified information for the EIAR be described. There were no such difficulties encountered in the production of this EIAR.

## 2 PROJECT DESCRIPTION & DESCRIPTION OF ALTERNATIVES

### 2.1 Introduction and Terms of Reference

This Chapter provides a detailed description of the Proposed Development together with details of the existing environment. In accordance with Article 5(1)(a) of the EIA Directive, the description of the project should comprise:

*'information on the site, design, size and other relevant features of the project'.*

A description of the Proposed Development and its surroundings is provided in this Chapter, together with the proposed design parameters. This description sets the basis against which the specialist assessments presented in this EIAR have been undertaken.

The EIAR must contain information in relation to the environmental impact of both the Proposed Development and all other "reasonable" alternatives studied. An indication of the main reasons for the option chosen must be given, taking into account the effects of the Proposed Development on the environment.

### 2.2 Site Location and Description

Blanche Retail Nominee Limited intend to apply to Fingal County Council for permission for a mixed-use development at Blanchardstown Town Centre. Blanchardstown Town Centre is located approximately 10km north-west of Dublin City Centre and approximately 1km north of the village of Blanchardstown. The Site of the Proposed Development, with an area of 2.55 hectares, incorporates the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the southeast corner adjoining the Blanchardstown Centre, a section of Road C and Road D and the associated roundabout junction, verges and footpaths.

Blanchardstown Town Centre is zoned 'MC – Major Town Centre' under the Fingal Development Plan 2017-2023. The objective of the MC zoning is to 'protect, provide for and/or improve major town centre facilities' through the future development of these centres by densification of appropriate commercial and residential developments ensuring a mix of commercial, recreational, civic, cultural, leisure, residential uses, and urban streets, while delivering a quality urban environment which will enhance the quality of life of resident, visitor and workers alike, and ensuring priority for public transport, pedestrians and cyclists.

### 2.3 Site History / Background

Blanchardstown is the largest urban area in the County of Fingal and serves as a service centre for the county along with Swords.

Blanchardstown Town Centre is designated as a Metropolitan Consolidation Town under the Eastern & Midland Regional Assembly Regional Spatial and Economic Strategy (RSES) 2019 and a Level 2 'Major Town Centre' in the Retail Strategy for the Greater Dublin Area. The town centre is now one of the key retail locations within Fingal, the Greater Dublin Area and nationally with an excess of 170,000 sq.m of retail floor space.



The construction of Blanchardstown Town Centre (BTC) commenced in 1994 and the first stage (i.e. the Phase 1 Shopping Centre now known as the Blanchardstown Centre) was completed in October 1996, followed by a multiplex cinema, restaurants and further retail units which opened in early 1997. The centre has an extensive planning history, dating back to the first available record of a planning application on the site in 1977. It has evolved to become the commercial, civic, recreational and transportation hub of the area. Blanchardstown Town Centre provides for a significant opportunity for consolidation and densification and delivery of residential development through the redevelopment of the existing surface car parks, and this Proposed Development is the first step in the process by the new owners.

The Blanchardstown Town Centre Development Framework / Masterplan (non-statutory) was adopted in 2009 to provide a comprehensive policy for BTC and includes guidance on the scale of development, mix of land uses and the overall urban design elements for future development at the centre. The current Development Plan supports the mixed-use development of the Town Centre lands. Recent expansion of the centre has focused on upgrading and expanding the town centre offer / retail environment and the next phase is envisaged to provide for a more comprehensive mixed-use approach. This will include a significant increase of integrated residential development in the Centre, and to continue the ongoing upgrade of the retail offer, and expansion of food & beverage and other supporting land uses in accordance with the existing planning policy framework.

### 2.3.1 Planning History

A planning history search for the Site of the Proposed Development has been undertaken and the relevant, recent planning history is set out in this section. We summarise below a number of relevant planning applications relating to adjoining areas, which primarily relate to the Blue Mall area of the Blanchardstown Town Centre and the associated public space. A number of other applications have been approved as part of the current applicant / previous owners' strategy for the overall expansion and upgrade of the Centre, including the Central Mall extension (Reg. Ref.: FW18A/0105), the Green Mall Entrance and extension (Reg. Ref.: FW18A/0116), and the Red Mall extension (Reg. Ref.: FW18A/0143 and Reg. Ref.: FW19A/0017), which are now all complete, and the permitted Blue Mall Extension which is expected to commence in the short-term.

#### 2.3.1.1 Reg. Ref.: FW18A/0168 – Permitted Blue Mall Extension

A planning application was granted permission on the 11<sup>th</sup> of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:

- The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.
- The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.
- A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.

- A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.
- The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.
- The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank.
- The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works.

The application was subject to a request for Further Information (FI) containing three items in total. Item 1 of the FI request required a justification for the quantum and scale of café / restaurant space proposed. A detailed justification report was provided, which satisfied the requirements of the Planning Authority.

On the 2<sup>nd</sup> of July 2020, 2 No. final grant of permission was issued for the following amendments to the permitted Blue Mall extension (under Reg. Ref.: FW18A/0168):

#### **FW20A/0018**

- Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall.
- Associated alterations to internal mall seating and modifications to fenestration.
- Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance.
- All associated and ancillary works.

#### **FW20A/0030**

- Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension.

#### **2.3.1.2 Reg. Ref.: F015A/0158 – Previous Permission for Blue Mall Extension**

Planning permission was granted by Fingal County Council, subject to 15 no conditions, on the 14<sup>th</sup> of March 2016 for the following development at the existing Blue Mall within the Blanchardstown Centre:

- Sub-division, change of use and extension of Unit 307C, including demolition of Unit 311, to provide two no. restaurant units. The extension consists of a double height structure including a mezzanine floor for each unit. Proposed restaurant Unit 307C will

have a Gross Floor Area (GFA) of 375 sq.m and proposed restaurant Unit 307D will have a GFA of 421 sq.m. An outdoor terrace with seating is also proposed.

- Provision of a new retail unit with a GFA of 55 sq.m (to provide for the relocation of Unit 311) to the southeast of Unit 307C and D.
- Provision of a single storey pavilion building (GFA of 75 sq.m) for restaurant / cafe use and a single storey kiosk building (GFA of 25 sq.m) for Class 1 Shop use to the front of the Blue Entrance.
- Alterations to the front façade of the Blue Entrance to include new glazed entrance, replacement glazed canopies for units either side of the entrance, removal of existing entrance canopy, improvements to the freestanding white fabric canopy, and new lighting, all associated with the upgrade of the Blue Entrance.
- Associated signage zones for each of the new units and main entrance, landscaping, lighting, and access alterations at the Blue Entrance Plaza to provide for improvements to vehicular and pedestrian circulation and overall enhancement of this area.

#### **2.3.1.3 Reg. Ref.: FW11A/0120**

Planning permission granted by Fingal County Council on the 11<sup>th</sup> of May 2012 for the following development at the existing Blue Mall within the Blanchardstown Centre:

- Proposed sub-division of Unit 307, with an existing GFA of 904.2 m<sup>2</sup>, into 3 no. units. Unit 307A will have a GFA of 295 m<sup>2</sup>, Unit 307B will have a GFA of 289.5 m<sup>2</sup> and Unit 307C will have a GFA of 282 m<sup>2</sup>.
- A change of use from retail to restaurant / café use is proposed for Unit 307A and Unit 307B. Unit 307C will remain in retail storage use.
- Two new entrances will be provided including shop front alterations on the east elevation and an outdoor seating area is proposed to the front of Unit 307A and Unit 307B.

The final grant of permission was subject to 8 no. conditions.

#### **2.3.1.4 Reg. Ref.: F05A/1409**

Planning permission was granted by Fingal County Council on the 14<sup>th</sup> of February 2006 for the following development at the existing Blue Mall within the Blanchardstown Centre:

- Extension to units 301, 303 and 304 (Penneys), on the Central Mall adjacent to the blue entrance at Road C, The Blanchardstown Centre, Coolmine, Blanchardstown, Dublin 15. The Proposed Development involved the provision of 4,586.7 sq. metres of additional floor space at levels 2, 3, 4 and 5 of the Blanchardstown Centre.
- This included the change of use of 18.9 sq. metres at level 2 from circulation to storage use, the change of use of 1,812.2 sq. metres at level 3 from staff offices/storage to retail use and the provision of 1917.8 sq. metres of staff and storage space at level 4 and the provision of 56 sq. metres of plant rooms at level 5. The net increase in retail

floor area is 2332.5 sq. metres. The Proposed Development will have a maximum height of 22.1 metres from the ground floor level of the Blue Car Park.

- The proposal also involved the construction of two additional decks of car parking at the existing Blue Car Park to accommodate a total of 496 car parking spaces. The first additional deck will contain 245 spaces. 100 of the spaces will provide for the car parking needs arising from the additional floor space proposed under this application in units 301, 303 and 304. 39 spaces will be re-providing spaces lost at lower levels to provide for the ramp up to the new levels. 106 spaces at the first additional level will replace the 106 spaces currently located at the Northwest Corner of the town centre and permitted as temporary spaces under application Register Reference F04A/0762. The 251 car parking spaces at the proposed second additional level are designed to provide for further future development of the Blanchardstown Centre, to be subject to separate planning applications, and include there placement of 120 spaces which are allocated to provide for future development and are currently accommodated in the temporary car park at the north west corner of the town centre permitted under application Register Reference F04A/0762 and the re-provision of 19 spaces lost at lower levels to provide for the ramp up to the new levels.'

The final grant of permission was subject to 8 no. conditions.

## 2.4 Project Overview

The Proposed Mixed-Use Development consists of the construction of 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, in 6 no. buildings (Blocks A, B, C, D, J and K), ranging from 5 no. to 13 no. storeys in height. The Proposed Development includes for an extension of the existing multi storey car park from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

The construction of 2 no. additional levels (increasing from 4 no. levels to 6 no. levels) on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the Blocks A, B, C, D, J and K. The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park. The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks. Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the application site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the site boundary.



Provision of telecommunications infrastructure at roof level comprising of 6 no. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3 no. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

The Proposed Development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2 no. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.

The application seeks a seven year permission for the Proposed Development. This is considered appropriate given the scale and nature of the Proposed Development, the Town Centre environment, and the associated complexities of construction in this location. However, it is intended to commence and complete construction in a timely manner, with the duration of construction approximately 24 to 30 months. Furthermore, following new legislation<sup>2</sup> in 2021, Section 42(8) of the Planning and Development (Housing) and Residential Tenancies Act 2016, as amended, provides that Planning Authorities shall not extend planning permissions granted that were subject to an EIAR, and accordingly it is considered appropriate to request a duration beyond the typical five year permission.

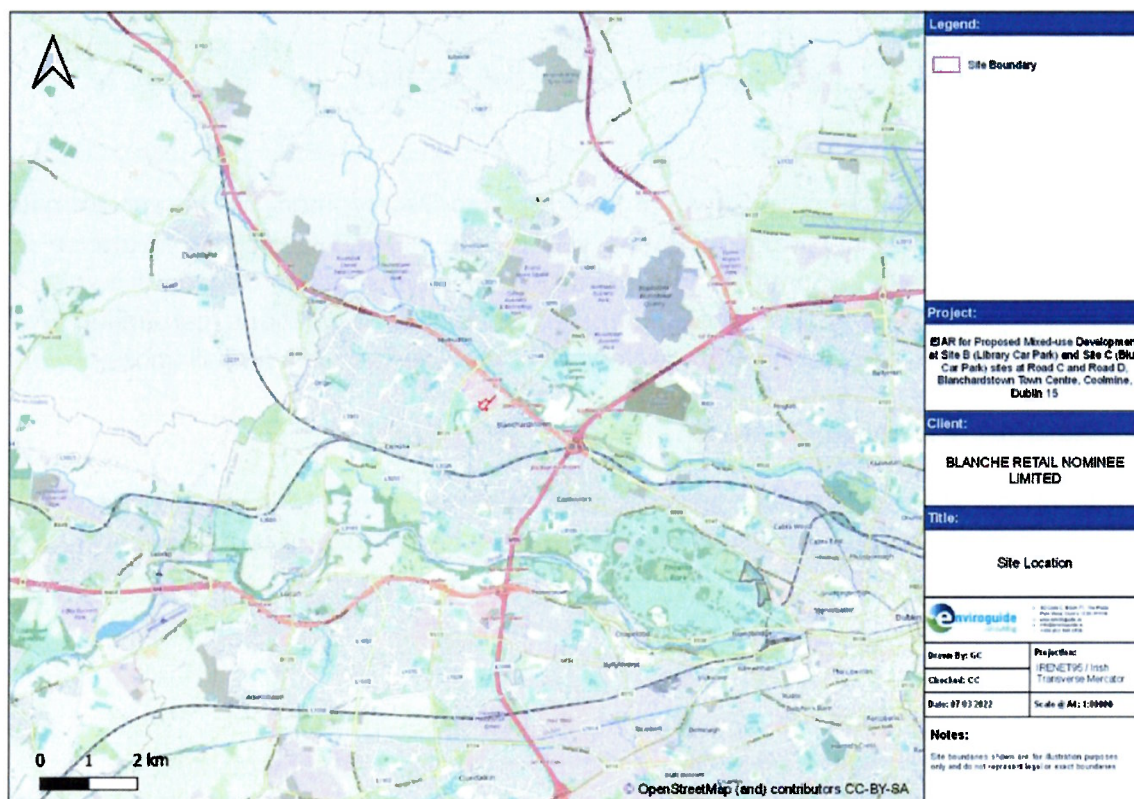


Figure 2-1: Location of the Proposed Development

<sup>2</sup> The European Union (Planning) (Habitats, Birds and Environmental Impact) Regulations 2021

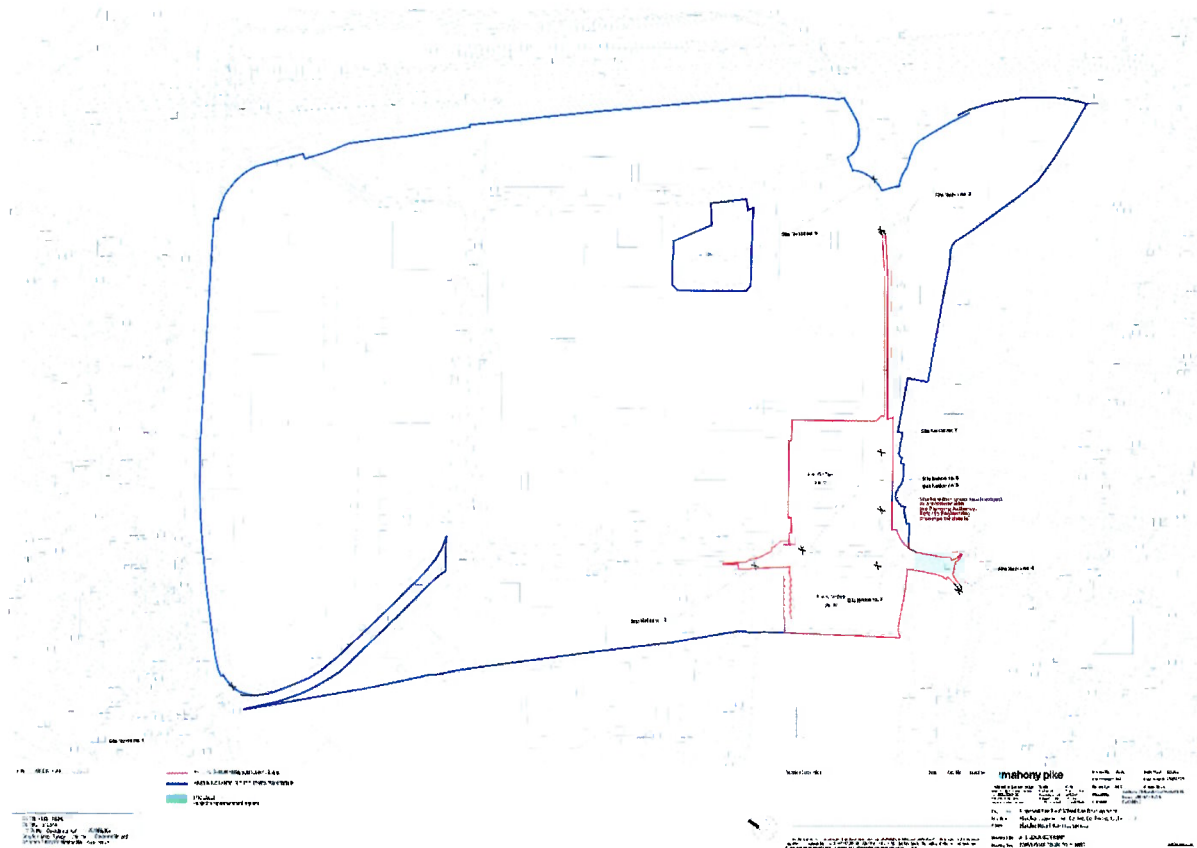


Figure 2-2: Proposed Site Location

## 2.5 Construction Phase

The duration of the Construction Phase of the Proposed Development will be approximately 24 to 30 months. The Construction Phase will include all necessary site clearance and preparation work, site development and construction. The Construction Phase will involve the excavation of soil and bedrock for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works.

## 2.6 Statutory Planning Context

The site of the Proposed Development is subject to National, Regional and Local level planning policy. The following outlines the key planning policy documents of relevance to the Proposed Development.

### 2.6.1 National

- Project Ireland 2040: National Planning Framework
- Sustainable Urban Housing: Design Standards for New Apartments 2018
- Urban Development and Building Heights – Guidelines for Planning Authorities 2018
- Housing for All – A New Housing Plan for Ireland (2021)
- Design Manual for Urban Roads & Streets 2013
- Climate Action and Low Carbon Development Act 2015 (as amended, 2021)
- Planning System and Flood Risk Management Guidelines 2009
- Sustainable Residential Development in Urban Areas Guidelines 2009

- Urban Design Manual, A Best Practice Guide 2009
- Smarter Travel, A Sustainable Transport Future. A New Transport Policy for Ireland 2009-2020

## 2.6.2 Regional

- Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031

## 2.6.3 Local

- Fingal County Council Development Plan 2017-2023

The policies and the objectives contained in the various plans / policies that are relevant to the Proposed Development are addressed in detail in Chapter 3 (Planning and Policy Context) of this EIAR.

## 2.7 Description of Alternatives

### 2.7.1 Introduction

Consideration of reasonable alternatives is an important aspect of the EIA process and is necessary to evaluate the likely environmental consequences of a range of development strategies for the site of the Proposed Development within the constraints imposed by environmental and planning conditions. This section provides a description of the reasonable alternatives that have been considered.

Article 5 of the EIA Directive requires that the EIAR contain:

“A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the Proposed Development and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”

This section of the EIAR provides an explanation of the reasonable alternatives examined throughout the design and consultation process. This serves to indicate the main reasons for choosing the Proposed Development, taking into account and providing a comparison of the environmental effects. The alternatives may be described at four levels:

- Alternative locations
- Alternative designs
- Alternative layouts
- Alternative processes

Pursuant to Section 3.4.1 of the Draft Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2017), the consideration of alternatives also needs to be cognisant of the fact that “*in some instances some of the alternatives described below will not be applicable - e.g. there may be no relevant ‘alternative location’...*”



In accordance with Draft EPA Guidelines (EPA, 2017), different types of alternatives may be considered at several key phases during the process. As environmental issues emerge during the preparation of the EIAR, alternative designs may need to be considered early on in the process or alternative mitigation options may need to be considered towards the end of the process.

The Draft EPA Guidelines (EPA, 2017) states:

*“The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with ‘an indication of the main reasons for selecting the chosen option’. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or ‘mini-EIA’) of each alternative is not required.”*

Thus, the consideration and presentation of the reasonable alternatives studied by the project design team is an important requirement of the EIA process.

### **2.7.2 Alternative Locations**

Three possible alternatives have been considered in terms of alternative locations for the Proposed Development

1. The Do-Nothing Alternative
2. Develop a greenfield site
3. Purchase another existing site with current planning permission for a similar development

The Do-Nothing Alternative would see the site will be remain as a car park.

A theoretical greenfield site was developed on the assumption that such a site was available. It was deemed that a greater impact would be created by the siting of a mixed-use development at this scale on such a site, given that the existing Site of the Proposed Development lies within lands that are heavily developed and have already been paved and built upon. In their current state these lands have little or no value for agriculture, forestry, or biodiversity. Additionally, if the theoretical greenfield site was in an area of outstanding natural beauty, the impact would be of greater significance.

The Site of Proposed Development is already owned by the applicant, hence purchasing another existing site with current planning permission was discounted due to the unlikely availability of such a site on the market and the levels of capital that would be required to purchase such a site.

Having regard to the above alternatives, the selected location is considered the most suitable location for the Proposed Development.

### **2.7.3 Alternative Uses**

As previously stated, the Site of the Proposed Development is located in Zone ‘MC – Major Town Centre’ under the Fingal County Development Plan (FCDP) 2017-2023. The objective of MC

zoning is to 'protect, provide for and/or improve major town centre facilities', which permits the following uses on the zoned lands:

Permitted in Principle		
Bed and Breakfast	Betting Office	Carpark - Non-Ancillary
Childcare Facilities	Community Facility	Conference Centre
Cultural Facility	Dancehall/Nightclub	Education
Exhibition Centre	Fast Food Outlet/Take-Away	Funeral Home/Mortuary
Garden Centre	Guest House	Health Centre
Health Practitioner	Holiday Home/Apartments	Home-Based Economic Activity
Hospital	Hotel	Office Ancillary to Permitted Use
Office ≤ 100sqm	Office > 100sqm and < 1,000sqm	Office ≥ 1,000sqm
Open Space	Petrol Station	Place of Worship
Public House	Public Transport Station	Recreational Facility/Sports Club
Research and Development	Residential	Residential Care Home/ Retirement Home
Residential Institution	Restaurant/Café	Retail - Local < 150 sqm nfa
Retail - Convenience ≤ 500 sqm nfa	Retail - Comparison ≤ 500 sqm nfa	Retail - Comparison > 500sqm nfa
Retail - Supermarket ≤ 2,500 sqm nfa	Retail - Superstore > 2,500 sqm nfa	Retail - Hypermarket > 5,000 sqm nfa <sup>8</sup>
Retail - Factory Outlet Centre	Retail Warehouse	Retirement Village
Sheltered Accommodation	Taxi Office	Telecommunications Structures
Training Centre	Traveller Community Accommodation	Utility Installations
Vehicle Sales Outlet - Small Vehicles	Vehicle Servicing/ Maintenance Garage	Veterinary Clinic
Wholesale		

Figure 2-3: Use Classes Related to Zoning Objective MC (Fingal County Development Plan 2017-2023)

The Proposed Development is in accordance with the Permitted in Principle uses under Zoning Objective MC.

There is the potential for the Site of the Proposed Development to be alternatively used for retail or recreational development, however, as stated in the Department of Housing, Local Government and Heritage's (DoHLGH) Plan 'Housing for All – A New Housing Plan for Ireland' (2021), Ireland needs an average of 33,000 homes to be constructed per annum until 2030 to meet targets set out for additional households. The Proposed Development seeks to achieve the objectives of the 'Housing for All' plan by:

- Supporting homeownership and increasing affordability,
- Eradicating homelessness, increasing social housing delivery, and supporting social inclusion,
- Increasing new housing supply; and
- Addressing vacancy and efficient use of existing stock.

Additionally Objective Blanchardstown 4 of the FCDP 2017-2023 which states '*Promote the consolidation and densification of the core retail area of Blanchardstown Town Centre as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the MC zoning.*'

Hence, considering these objectives and targets, the Proposed Development would seem to be the best option for the Site.

Additionally, the Proposed Development is located beside an area under Zoning Objective 'HT – High Technology', which seeks to 'provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment.' Using the Site of the Proposed Development for residential development, combined with commercial units, public and communal open spaces and additional commercial parking, will complement the neighbouring land use zone, by providing additional housing and amenities for employees in the High Technology area.

#### **2.7.4 Alternative Design & Layouts**

The design and layout of the Proposed Development was the subject of detailed discussions with all the relevant authorities prior to the finalised design and layout being prepared, which highlighted numerous issues to be addressed to inform the design process. These considerations have informed the consideration of alternative layouts and designs, open space provision, addressing the issues of population and human health in an urban environment, noise and visual impact, biodiversity, archaeology, road and access arrangements up to the formalisation of the final scheme which is being submitted to Fingal County Council for approval.

During the design process for the Proposed Development several iterations of the site layout and alternative designs were considered. The Proposed Development has been prepared in accordance with the requirements of the Fingal County Development Plan 2017-2023 and has been the subject of several pre-application meetings with the Planning Authority prior to lodgement.

*Housing for All – A New Housing Plan for Ireland (DoHLGH, 2021)* not only states that Ireland requires additional housing to meet its current and future needs, but the plan also states that the housing must be built in "*the right place, to the right standard and in support of climate action*". Hence the proposal has also been the subject to a Nearly Zero Energy Building (NZEB) assessment (Axiseng, 2022) with design alterations arising out of this process also. The finalised design includes energy conservation measures aiming to achieve the best energy performance possible, including passive and active elements that have been designed to reduce energy use, carbon emissions, and cost through the building's lifecycle. The finalised design has also been developed based on the latest Building Regulations Technical Guidance Document, Part L - Nearly Zero Energy Building, of 2019.

The pre-application discussions took place on the 16th of September 2021, the 12th of October 2021 and the 3rd of December 2021. In addition, separate discussions also took place with other departments prior to lodgement. The key considerations and amendments to the design of the scheme, having regard to and comparing the key environmental issues, are set out and discussed below, including: -



- Design options and changes which were incorporated into the scheme as the proposals progressed through pre-application discussions with the Planning Authority;
- Key design changes arising following the lodgement of the pre-application to FCC;
- Overview of the scheme submitted for approval.

The following outlines the key issues raised during the pre-application discussions and how the applicant / design team have responded in the final application:

The layout of public open space planned for Site B in the original proposal has been altered to incorporate access to the MC zoned lands to the south. Cameo Landscape Architects have designed a high-quality public realm / public open space areas at street level and quality communal open space areas at podium level. The quantum and quality of the spaces are considered appropriate for a town centre environment, where space must be intensively used. The public realm and public open space areas exceed the minimum of 10% for town centre / infill / brownfield sites.

Compliance with the Design Standards for New Apartments - Guidelines for Planning Authorities (Dec 2020) with regards to the height and density of the buildings was addressed and demonstrated through OMP Architects architectural drawings and supporting daylight and sunlight assessment.

It was recommended to consider that the scheme would benefit from a greater extent of ground floor commercial uses and active frontage. The original proposal has been altered to incorporate additional commercial, communal and amenity uses at ground floor level onto Road D and C. Further activation of the elevations onto the access road to the MC zoned lands to the south has been provided, whilst acknowledging the unsuitability for commercial uses and other constraints for this particular section of Block J and K.

It was noted that the transition of the proposed heights to surrounding land uses needed further consideration. The architectural drawings and visuals demonstrate the methods employed by OMP Architects, in respect to massing, setbacks, detailing, etc., to ensure that the final proposal responds to its existing context, whilst delivering a scale and density of development which is appropriate for a Town Centre environment. Additionally, it was stated that the architectural quality and elevational treatment must be of a high standard for the Town Centre location and must include quality materials. As demonstrated in OMP's Design Statement, and supporting visuals, the proposals are considered to be of a high-quality architectural design, with high quality materials, and will provide a very positive addition to the built form of Blanchardstown Town Centre, thereby setting a positive precedent for future densification of the MC zoned lands

During the discussions it was stated that appropriate setbacks are required from the MC zoned lands to the south and treatment of southern block / car park. The building is setback in excess of 11m from the boundary with the Major Town Centre zoned lands to the south, thus, the minimum opposing separate distance would be 22m between blocks if the Proposed Development was mirrored on the adjoining MC lands. An indicative layout is provided in OMP's Design Statement, and the daylight / sunlight assessment also includes a section demonstrating that the proposals will not adversely impact on future development proposals on the Major Town Centre zoned lands to the south. Block J and K have been designed to allow for the retention of the existing hedgerow and trees along the southern boundary, with a

landscape buffer zone and treatment of the undercroft car park being designed to ensure it responds appropriately to its context

### **2.7.5 Alternative Process**

Due to the nature of the current proposal, i.e.,

- the construction of 352 no. apartments and ancillary resident amenity floorspace, 5 no. commercial units, and 1 no. community facility, in 6 no. buildings (Blocks A, B, C, D are to be located on the Blue Car Park site (Site C), and Blocks J and K are proposed on the Library Car Park site (Site B)), ranging from 5 no. to 13 no. storeys in height; and
- the extension of the existing multi storey car park from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development,

where the planning application will be submitted to Fingal County Council, it was not considered necessary to consider alternative processes for the Proposed Development.

## **2.8 The Existence of the Project**

The Construction Phase of the Proposed Development is estimated to take 24-30 months. During the Construction Phase of the Proposed Development there will be approximately 450 jobs created, with a maximum of 300 construction workers onsite at any one time at the peak of the construction works. Hence, for the duration of the Construction Phase of the Proposed Development there will be a short-term increase in construction employment in the area, which will have a positive impact, both directly and indirectly, on the local economy.

The COVID-19 pandemic has affected Ireland's economy and society since the first case of the virus was confirmed in Ireland at the end of February 2020. On 11th March 2020, the World Health Organisation (WHO) declared COVID-19 to be a global pandemic. Ireland's society continues to adhere to the public health advice. All public health advice in place at the time of commencement of the Construction and Operational Phases of this Proposed Development will be adhered to in order to protect human and public health.

The Operational Phase of the Proposed Development will result in an increase in the population of the area, and it will have a positive impact on the long-term supply needs of housing in the Greater Dublin Area. The Proposed Development will provide additional housing options for those already employed in the area, which will reduce commute times. In addition to housing, the Operational Phase of the Proposed Development will have the potential to create employment in the retail units, and in the maintenance and management of the Proposed Development, which will have a long-term, positive impact on the local socio-economic environment.

Any likely significant environmental impacts of the Proposed Development are fully addressed in the relevant specialist Chapters of this EIAR. These impacts relate to Population & Human Health, Land & Soil, Hydrology and Hydrogeology, Landscape & Visual, Noise and Air Quality & Climate associated with the Proposed Development.

The Proposed Development has the potential for cumulative, secondary, and indirect impacts, these can be difficult to quantify due to complex inter-relationships. All interactions and cumulative impacts have been addressed in Chapter 14 (Interactions) with cumulative impacts and interactions fully addressed in the relevant specialist Chapters of this EIAR.

### 3 PLANNING AND POLICY

The planning and policy context gives an overview of the relevant legislation that supports the Proposed Development at a local, regional and national level, and sets out the strategic and statutory context governing the planning and development of the Proposed Development.

The Proposed Development consists of 6 no. apartment buildings (A, B, C, D, J and K), with ground floor commercial uses, ranging from 5 to 13 no. storeys in height and extension, including associated alterations, of the existing multi storey car park (the Blue Car Park) from 4 no. levels to 6 no. levels.

Apartment Blocks J and K are proposed on the Library Car Park site (Site B) and Apartment Blocks A, B, C and D are located on the Blue Car Park site (Site C). The Proposed Development includes a total of 352 no. apartments (comprising 43 no. studios, 134 no. 1 bed apartments, 154 no. 2 bed apartments, and 21 no. 3 bed apartments), resident amenity space and 6 no. retail / commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11 Gym or Restaurant / Café use, including ancillary takeaway use).

The construction of 2 no. additional levels on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the apartments within Blocks A, B, C and D. Car parking is also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The Proposed Development includes public and communal open space, landscaping and public realm improvements, vehicular accesses and new road infrastructure adjacent to Block J and K up to the site boundary, cycle parking, 2 no. ESB substations and switchrooms, bin stores and plant rooms. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting.

The following sections describe how the Proposed Development complies with the stated and statutory requirements of Fingal County Council (FCC) with respect to planning and sustainable development. The relevant local planning policy with which the Proposed Development complies primarily comprises the Fingal County Development Plan 2017-2023.

The Site of the Proposed Development is located on land zoned *MC- Major Town Centre*. Residential use is Permitted in Principle under this zoning objective.

The development strategy for the Town Centre also includes for *“the consolidation of Blanchardstown as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the Major Town Centre zoning.”* This is reflected in Objective Blanchardstown 4 of the Development Plan which seeks to *“Promote the consolidation and densification of the core retail area of Blanchardstown Town Centre as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the MC zoning.”* The proposal for a residential led development on Site B and Site C delivers on these objectives and will help deliver much needed residential development within the core of the Town Centre in accordance with the prevailing land use zoning (Planning Report, JSA, March 2022).



### 3.1 National and Regional Planning Policy Context

#### 3.1.1 National Planning Context

##### 3.1.1.1 National Framework Plan

The *Project Ireland 2040: National Planning Framework* (NPF), published on 16<sup>th</sup> February 2018, replaces the previous National Spatial Strategy. It is the Government's high-level strategic plan for shaping the future growth of the country to the year 2040. It will guide public and private investment and create and promote opportunities for people, and to protect and enhance the environment.

The NPF outlines key future planning and development place making policies for the Eastern and Midland Regions, including a major new policy emphasis on renewing and developing existing settlements with the target of achieving at least 40% of all new housing to be delivered within the existing built-up areas of cities, towns and villages on infill and/or brownfield sites, such as the subject site (Planning Report).

The National Strategic Outcomes as set out in the NPF are:

- Compact Growth;
- Enhanced Regional Accessibility;
- Strengthened Rural Economies and Communities;
- High-Quality International Connectivity;
- Sustainable Mobility;
- A Strong Economy, supported by Enterprise, Innovation and Skills;
- Enhanced Amenities and Heritage;
- Transition to a Low Carbon and Climate Resilient Society;
- Sustainable Management of Water, Waste, and other Environmental Resources;
- and
- Access to Quality Childcare, Education and Health Services.

The NPF - Project Ireland 2040 requires delivery of a baseline of 25,000 homes annually to 2020, followed by a likely level of 30-35,000 annually up to 2027. To achieve the objective of compact growth, 40% of future housing delivery is to be delivered within and close to the existing built-up areas. Within Dublin, the NPF states that the city needs to '*accommodate a greater proportion of the growth it generates within its metropolitan boundaries and to offer improved housing choice.*'

National Policy **Objective 4** in this regards states:

*'Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being.'*

The Proposed Development supports and assists in achieving the following objectives:

National Policy **Objective 11** in this regards states:

*'In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth.'*

National Policy **Objective 13** in this regards states:

*'In urban areas, planning and related standards, including in particular building height and car parking will be based on performance criteria that seek to achieve well-designed high quality outcomes in order to achieve targeted growth. These standards will be subject to a range of tolerance that enables alternative solutions to be proposed to achieve stated outcomes, provided public safety is not compromised and the environment is suitably protected.'*

The NPF also includes the following objective in relation to social infrastructure needs:

National Policy **Objective 33**:

*Prioritise the provision of new homes at locations that can support sustainable development and at an appropriate scale of provision relative to location.*

As defined in the NPF, ideally future homes will be located in places that can support sustainable development - places which support growth, innovation and the efficient provision of infrastructure, are accessible to a range of local services, can encourage the use of public transport, walking and cycling, and help tackle climate change.

The Proposed Development supports the policies and goals outlined in the NPF. The development is located in an area well served by the necessary infrastructure, and which is zoned specifically for uses of this nature.

Further details on how the Proposed Development supports and complies with planning policy and legislation are detailed in the Planning Report by JSA submitted separately as part of this application.

#### **3.1.1.2 Sustainable Urban Housing: Design Standards for New Apartments (2018)**

The Sustainable Urban Housing: Design Standards for New Apartments guidelines update the previous version that was published in 2015. These Guidelines promote sustainable living patterns with the objective to curb urban sprawl. The Proposed Development has been designed to these current standards.

#### **3.1.2 Urban Development and Building Heights Guidelines for Planning Authorities (2018)**

The Urban Development and Building Heights – Guidelines for Planning Authorities, set out national planning policy guidance on building heights with regard to urban areas. The Guidelines supports the strategic policy framework set out in Project Ireland 2040 through the strengthening of policies for consolidation of existing built-up areas, rather than an unsustainable pattern of development whereby many cities and towns continue to grow outwards.

In relation to individual Planning Applications the Guidelines identify that there is a presumption in favour of buildings of increased height in our town/city cores and in other urban locations with good public transport accessibility. In addition, Guidelines set out national planning policy that *'Applies those requirements in setting out relevant planning criteria for considering increased building height in various locations but principally (a) urban and city-centre locations and (b) suburban and wider town locations.'* The Guidelines seek to secure *'...compact and sustainable urban growth'* which means *'..either reusing or redeveloping existing sites and buildings, in well serviced urban locations, particularly those served by good public transport and supporting services, including employment opportunities'*.

The Proposed Development will assist in achieving growth within an already built-up commuter area such as Blanchardstown. In the context of the Proposed Development, this application is considered to meet the criteria of the Guidelines. The Site of the Proposed Development is well served by public transport - *'frequent service and good links to other modes of public transport'* and it is designed *'to integrate into/ enhance the character and public realm of the area, having regard to topography, its cultural context, setting of key landmarks, protection of key views'*.

### **3.1.3 Housing for All - A New Housing Plan for Ireland (2021)**

Housing for All - a New Housing Plan for Ireland' is the government's housing policy to 2030. It is a multi-annual, multi-billion euro plan which will improve Ireland's housing system and deliver more homes of all types for people with different housing needs.

The overall aim of Housing for All is : *"Everyone in the State should have access to a home to purchase or rent at an affordable price, built to a high standard and in the right place, offering a high quality of life."* Housing for All provides four pathways to achieving four overarching objectives:

- *"Supporting Homeownership and Increasing Affordability;*
- *Eradicating Homelessness, Increasing Social Housing Delivery and Supporting Social Inclusion;*
- *Increasing New Housing Supply; and*
- *Addressing Vacancy and Efficient Use of Existing Stock."*

To meet the targets as set out in the National Planning Framework and the measures discussed in the Housing Plan, Ireland needs an average of 33,000 homes constructed per annum until 2030

The Proposed Development will contribute to the number of residential homes being constructed and will assist in achieving the Housing Policy Objectives outlined in the Plan. The Government's *Housing for All Plan* as well as the policies outlined in the National Planning Framework support the delivery of residential development, such as that proposed. The Proposed Development is located in close proximity to quality public transport routes (the area is well serviced with public transport, including access to rail, buses, and established walking and cycling paths) and within an existing urban area.

### **3.2.2 Design Manual for Urban Roads & Streets (DMURS) (2013)**

The Design Manual was prepared by the Department of Transport, Tourism and Sport, together with the Department of Environment, Community and Local Government in 2013 for Urban Roads and Streets and sets out design guidance and standards for urban roads/streets in Ireland. It also outlines practical design measures to encourage more sustainable travel patterns in urban areas. The Traffic and Transport Assessment (January 18th 2022), prepared by Clifton Scannell Emerson, provides further detail in respect of the compliance of the Proposed Development with this Design Manual.

### **3.2.3 National Policy Position on Climate Action & Low Carbon Development and the Climate Action Plan**

The EU, in 2014, agreed the “2030 Climate and Energy Policy Framework” (EU 2014). The European Council endorsed an EU target of at least a 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990. The Paris Agreement was established in 2015 and is an important milestone in terms of international climate change agreements. In order to meet the objectives of the Paris Agreement, and to assist in reducing Ireland’s GHG emissions, the Irish government has established and outlined several policies at a national level.

In 2014, the Government adopted the National Policy Position on Climate Action and Low Carbon Development. The Climate Action and Low Carbon Development Act 2015 was adopted to provide for the approval of plans by the government in relation to climate change. This Act establishes the fundamental national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. It sets out the context for the objective, clarifies the level of greenhouse gas (GHG) mitigation ambition envisaged and establishes the process to pursue and achieve the overall objective. Specifically, the Policy Position envisages that policy development will be guided by a long-term vision based on:

- An aggregate reduction in carbon dioxide (CO<sub>2</sub>) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors; and
- In parallel, an approach to carbon neutrality in the agriculture and land-use sector, including forestry, which does not compromise capacity for sustainable food production.

The National Mitigation Plan (DCCAIE, 2017) and the National Adaptation Framework (DCCAIE, 2018) were also established under this Act.

In addition, on Thursday 4 November 2021, the government launched the Climate Action Plan 2021, an ambitious plan to put Ireland on a more sustainable path, cutting emissions, creating a cleaner, greener economy and society and protecting us from the devastating consequences of climate change.

The Climate Action Plan follows the Climate Act 2021, which commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030. These targets are a key pillar of the Programme for Government. By 2030, the government aims to achieve the following:

- Cutting greenhouse gas emissions by at least 30%
- Reaching a target of at least 32.5% energy efficiency
- Delivering 70% renewable electricity

The Proposed Development is compliant with the objectives of the National Policy Position on Climate Action and Low Carbon Development through the implementation of the following:

- High-performance construction envelope including low u-value and g-value
- Air tightness construction
- Localised Heat Pump system generating hot water for each apartment
- Mechanical ventilation with Heat Recovery
- Low installed lighting power
- Photovoltaic panels as required to achieve Part L compliance.

Further information is available within the *Energy Statement (NZEB & Part L Planning Compliance) For the Mechanical and Electrical Services Installations* Report (Axiseng Consulting Engineers, 4<sup>th</sup> March 2022) that will be submitted as part of this application.

#### **3.1.3.1 The Planning System & Flood Risk Management (2009)**

The Planning System and Flood Risk Management Guidelines were issued under Section 28 of the Planning & Development Act 2000 (as amended). The Planning System and Flood Risk Management Guidelines require the planning system at all levels to avoid development in areas at risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere; adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk; and incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

A Site-Specific Flood Risk Assessment (SSFRA) has been prepared in accordance with these guidelines by DBFL Consulting Engineers (January 2022) and is enclosed with the planning application.

#### **3.1.3.2 Sustainable Residential Development in Urban Areas, Guidelines for Planning Authorities, 2009 and Urban Design Manual, A Best Practice Guide**

The Sustainable Residential Development in Urban Areas guidelines detail the key principles for new residential developments in urban areas while its accompanying Urban Design Manual translates the guidelines into practice. The Guidelines encourage increased densities in appropriate zoned residential land within inner suburban areas of cities, proximate to existing and due to be improved public transport corridors.



The Site of the Proposed Development is located within Blanchardstown Town Centre, an established area already well serviced with all necessary infrastructure, including a rail line (coalmine station), bus hub (Local busses connect to Dublin Spine Bus Route) and Proposed Luas – stop in the centre. In the case of the Proposed Development, the density is approximately 350 apartments, which accords fully with strategic planning policy, particularly the Urban Development and Building Height Guidelines (2018).

### **3.1.3.3 Urban Design Manual (A Best Practice Guide) (2009)**

The Urban Design Manual was published as a companion document to the Guidelines for Sustainable Residential Development in Urban Areas. The Manual is intended to assist in the assessment of residential applications, to identify the principles and criteria that are important in the design of housing and to set out a design framework for a new residential neighbourhood. These guidelines are also incorporated in the relevant development plan and/or local area plans and outline key considerations in planning application assessments.

The Manual sets out 12 key urban design criteria that all new residential developments should be tested against, in order to establish if the scheme is a well-designed proposal including Context, Connections, Inclusivity, Variety, Efficiency, Distinctiveness, Layout, Public Realm, Adaptability, Privacy / Amenity, Parking and Detailed Design.

In accordance with the Guidelines, the Proposed Development has been assessed against these criteria by O'Mahony Pike Architects (OMP) within the Design Statement that is included as part of the planning application.

### **3.1.3.4 National Investment Framework for Transport in Ireland (NIFTI)**

The National Investment Framework for Transport in Ireland (NIFTI) sets out clear principles for the consideration of future transport investment and is closely aligned with key Government policy priorities and commitments, such as the Climate Action Plan and the National Development Plan.

The strategic investment priorities articulated by NIFTI have been developed to support the realisation of the NPF and address key transport challenges identified through extensive supporting analysis. The four NIFTI priorities for future land transport investment are:

- Decarbonisation
- Protection and Renewal
- Mobility of People and Goods in Urban Areas
- Enhanced Regional and Rural Connectivity

The Proposed Development aligns with the principles as set out by NIFTI. In particular, the Proposed Development assists in achieving one of the key outcomes of the NPF – Compact Growth. NIFTI Investment Priority: Mobility of People and Goods in Urban Areas' outlines importance measures such as *'walking and cycling infrastructure expansion, and the provision of better and more comprehensive public transport services'* in order to tackle spatial constraints and urban congestion issues.

*“Transport should be a central consideration for future development, reducing the need for new infrastructure and optimising existing transport capacity, mitigating the need to travel and ensuring that the most sustainable modes are encouraged.”* The Proposed Development meets these needs as the development site is located in close proximity to the bus terminus proposed inside the Blanchardstown Shopping Centre. The B Spine Corridor will be serviced every 4 minutes throughout the day, with a 15-minutes bus frequency. The Proposed Development Site is also located in close proximity to the Tolka and Royal Canal Greenways, primary cycle routes number 5 and 5A and secondary cycle route 5b- 5F. These routes extend from the site to Dublin City Centre, and several areas within north and south-west Dublin. Therefore, due to the strategic location and good public transport available near the Proposed Development Site, the Proposed Development will optimise existing transport services and assists in achieving the NFP and Climate Action Plan key policy objectives and commitments. A Traffic and Transport Assessment (March 2022) has been prepared by Clifton Scannell Emerson and is submitted with this planning application. The Traffic Report demonstrate the consistency of the Proposed Development with these policy objectives.

### **3.1.4 Regional Planning Context**

#### **3.1.4.1 Eastern & Midland Regional Assembly - Regional Spatial & Economic Strategy (2019)**

The Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031 (hereafter RSES) were adopted in 2019 to ensure the policies and objectives of the NPF are implemented at a regional level.

The Strategy identifies that the Region *‘is home to over 800,000 households, with 4 out of 5 living in conventional housing while apartments account for around 18% of our housing stock. One of the challenges facing the Region is the continued growth rates of household formation coupled with a severe slowdown in the development of new housing stock during the economic recession, resulting in housing supply and affordability pressures in both sale and rental markets, particularly in Dublin and urban areas but affecting all of the Region’.*

The RSES sets out an ambitious target to achieve compact growth with 50% of housing to be provided within or contiguous to the built-up area of Dublin city and suburbs.

RPO 4.3: to *“support the consolidation and reintensification of infill / brownfield sites to provide high density and people intensive uses within the existing built up area of Dublin city and suburbs and ensure that the development of future development areas is co-ordinated with the delivery of key water infrastructure and public transport projects.”*

The Proposed Development will contribute to the target to achieve compact growth with 50% of housing to be provided within or contiguous to the built-up area of Dublin City and suburbs.

The Proposed Development has been designed in accordance with the above guidelines, objectives of the NPF and the RSES EMRA.

### 3.1.5 Local Level

#### 3.1.5.1 Fingal County Council Development Plan 2017-2023

The Fingal County Council Development Plan is the statutory planning policy document for the County and sets out the policies and objectives for the proper planning and sustainable development of the County from 2017 to 2023. The Site is located within the administrative area of FCC.

##### 3.1.5.1.1 Requirements for Development of Lands Zoned MC

The entirety of the application Site is zoned MC- Major Town Centre, with the objective to “Protect, provide for and/ or improve major town centre facilities.” The Vision for this zoning objective, as outlined in the CDP, is to:

*“Consolidate the existing Major Towns in the County, (Blanchardstown, Swords and Balbriggan). The aim is to further develop these centres by densification of appropriate commercial and residential developments ensuring a mix of commercial, recreational, civic, cultural, leisure, residential uses, and urban streets, while delivering a quality urban environment which will enhance the quality of life of resident, visitor and workers alike. The zone will strengthen retail provision in accordance with the County Retail Strategy, emphasise urban conservation, ensure priority for public transport, pedestrians and cyclists while minimising the impact of private car based traffic and enhance and develop the existing urban fabric. In order to deliver this vision and to provide a framework for sustainable development, masterplans will be prepared for each centre in accordance with the Urban Fingal Chapter objectives.”*

The proposed mixed use development consists of the construction of 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, in six no. buildings (Blocks A, B, C, D, J and K), ranging from 5 no. to 13 no. storeys in height. The development includes for an extension of the existing multi storey car park from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

Residential, Retail, Restaurant/Café, Office and Fast Food Outlet/Take-Away use is classed as Permitted in Principle for this Zone therefore the Proposed Development is consistent with the policies and zoning objectives outlined in the CDP.

##### 3.1.5.1.2 Policy in relation to Residential Development

The Strategic Policy of the Development Plan will deliver on the Main Aims by seeking to “Add quality to the places where Fingal’s communities live, work and recreate by integrating high quality design into every aspect of the Plan promoting adaptable residential buildings and ensuring developments contribute to a positive sense of place and local distinctiveness of an area.”

It is the policy of the CDP to:

**SS02:** *Ensure that all proposals for residential development accord with the County's Settlement Strategy and are consistent with Fingal's identified hierarchy of settlement centres.*

**SS03:** *Identify sufficient lands for residential development in order to achieve the housing and population targets set out in the Core Strategy, while ensuring that excess lands surplus to this specific requirement are not identified, in order to prevent fragmented development, uneconomic infrastructure provision and car dependent urban sprawl.*

**SS16:** *Examine the possibility of achieving higher densities in urban areas adjoining Dublin City where such an approach would be in keeping with the character and form of existing residential communities, or would otherwise be appropriate in the context of the site.*

**Objective PM39:** *Ensure consolidated development in Fingal by facilitating residential development in existing urban and village locations.*

**Objective PM44:** *Encourage and promote the development of underutilised infill, corner and backland sites in existing residential areas subject to the character of the area and environment being protected.*

#### **3.1.5.1.3 Blanchardstown Development Plan Objectives**

The Development Plan also highlights the importance of the consolidation of Blanchardstown as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the Major Town Centre zoning.

**Objective BLANCHARDSTOWN 4:** *Promote the consolidation and densification of the core retail area of Blanchardstown Town Centre as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the MC zoning.*

### **3.2 The EIA Directive**

The EIA Directive (85/337/EEC) is in force since 1985 and applies to a wide range of defined public and private projects. The EIA Directive was amended in 1997, 2003, 2009, 2011 and 2014 by Directives 97/11/EC; 2003/35/EC, 2009/31/EC, 2011/92/EU and 2014/52/EU. The EIA Directive requires environmental impact assessments to be carried out for certain projects as listed in Annex I of the Directive. The EIA Directive, and amendments, are transposed into Irish law through the Planning and Development Acts 1996 to 2019 in particular S.I. No. 296 of 2018.

Schedule 5, Part 1, of the Planning Regulations transposes Annex 1 of the EIA Directive directly into Irish planning legislation. An EIAR is required to accompany a planning application for development of a class set out in Schedule 5, Part 1 of the Planning Regulations which exceeds a limit, quantity or threshold set for that class of development.

Schedule 5, Part 2 of the Planning Regulations defines projects that are assessed on the basis of set mandatory thresholds for each of the project classes including:

*"Schedule 5, Part 2 - Infrastructure projects*



*11(b) Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule.*

Draft “Guidelines on the Information to be contained in Environmental Impact Assessment Reports” published by the Environmental Protection Agency (EPA) in August 2017 detail the key changes made by the amended 2014 EIA Directive. This document has also been used in the preparation of this EIAR. In August 2018 the Department of Housing, Planning and Local Government published a document entitled ‘Guidelines for Planning Authorities and An Bord Pleanála’ on carrying out Environmental Impact Assessment. That document has also been used in the preparation of this EIAR.

The Revised EIA Directive defines EIA as a process. Article 1(2) (g) states that EIA means:

*“(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, taking into account 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”.*

The Revised EIA Directive requires the EIA to identify, describe and assess, in an appropriate manner and in light of each individual case, the direct and indirect significant effects of the Proposed Development on factors of the environment including:

- (a) population and human health;
- (b) biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives;
- (c) land, soil, water, air and climate;
- (d) material assets, cultural heritage and the landscape;
- (e) the interaction between the factors referred to in points (a) to (d).

The requirements of the Revised EIA Directive in relation to each chapter are addressed in the EIAR as follows;

- Chapter 2: Description of Development
- Chapter 3: Planning and Policy Context
- Chapter 4: Population and Human Health
- Chapter 5: Biodiversity;



- Chapter 6: Land and Soils;
- Chapter 7: Hydrology;
- Chapter 8: Air Quality and Climate;
- Chapter 9: Noise and Vibration;
- Chapter 10: Landscape and Visual Amenity;
- Chapter 11: Archaeology and Cultural Heritage;
- Chapter 12: Material Assets including Traffic;
- Chapter 13: Risk Management;
- Chapter 14: Interactions;
- Chapter 15: Mitigation and Monitoring Measures.

## **4 POPULATION AND HUMAN HEALTH**

### **4.1 Introduction**

This Chapter of the EIAR provides a description and assessment of the likely impact of the Proposed Development on Population and Human Health and was prepared by Kamala Yagubova (BS Hons.), Environmental Consultant, Enviroguide Consulting.

This chapter of the EIA Report considers the potential impacts of the Proposed Development on human beings, living, working, and visiting in the vicinity of the application site at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. The Chapter details the potential direct and indirect effects of the Proposed Development on population and human health.

Human beings are one of the most significant elements of the environment to be considered, therefore any potential impact on the status of humans by a development proposal must be comprehensively addressed. One of the principal concerns in any Proposed Development is that the local population experiences no reduction in the quality of life as a result of the development on either a permanent or temporary basis. This chapter also examines the socio-economic impacts of the development proposal focusing on pertinent issues such as residential amenity, economic activity, tourism and population levels.

The chapter on Population and Human Health is broad ranging and covers the existence, wellbeing, and activities of people through the format of considering people as 'groups' or 'populations'. The assessment of impacts on human beings involves the identification of relevant key populations that may be affected by the Proposed Development and quantifiable documentary research.

Key populations have been identified as persons residing and engaging in activities near the application site, persons with a stake in the general economy of the local and regional area, and persons enjoying the recreational and cultural amenities of the area.

### **4.2 Study Methodology**

A desk-based study was undertaken to assess information regarding population, age structure, economic activity, employment, and unemployment within the vicinity of the Proposed Development.

The scope of the evaluation is based on a review of data available from the Central Statistics Office (CSO), legislation, guidance documents and EIARs. Consultation was carried out with prescribed bodies to consider the likelihood of significant impacts arising, having regard to the receiving environment and the nature and extent of the Proposed Development. The aim of the study was to assess the current baseline environment.

The potential impact of the Proposed Development on the local population is assessed in this EIAR in relation to:

- Population;
- Settlement patterns;

- Socio Economic impacts;
- Tourism and Amenity;
- Air quality;
- Water;
- Noise;
- Traffic; and
- Risk

#### 4.2.1 Information Sources

The principal sources of information are as follows;

- Census and employment information published by the Central Statistics Office (CSO). Available at <https://data.cso.ie/#>
- Fingal County Development Plan 2017-2023, Available at: <https://www.fingal.ie/fingal-development-plan-2017-2023>
- Regional Planning Guidelines of the Greater Dublin Area 2010-2022, and
- Ordinance Survey Ireland (OSI) mapping and aerial photography.

In line with the EPA Guidelines (EPA, 2017), the following terms are defined when quantifying the quality of effects. See table 4.1.

*Table 4-1: Definition of Quality of Effects*

Quality	Definition
Positive Effects	A change which improves the quality of the environment
Neutral Effects	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error
Negative/adverse Effects	A change which reduces the quality of the environment

In line with the EPA Guidelines (EPA, 2017), the following terms are defined when quantifying the significance of impacts. See Table 4.2.

*Table 4-2: Definition of Significance of Effects*

Significance of Effects	Definition
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effects	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound Effects	An effect which obliterates sensitive characteristics.

In line with the EPA Guidelines (EPA, 2017), the following terms are defined when quantifying duration and frequency of effects. See Table 4.3.

*Table 4-3: Definition of Duration of Effects*

Quality	Definition
Momentary Effects	Effects lasting from seconds to minutes.
Brief Effects	Effects lasting less than a day.
Temporary Effects	Effects lasting less than a year.
Short-term Effects	Effects lasting one to seven years.
Medium-term Effects	Effects lasting seven to fifteen years.
Long-term Effects	Effects lasting fifteen to sixty years.
Permanent Effects	Effects lasting over sixty years.
Reversible Effects	Effects that can be undone, for example through remediation or restoration.

### 4.3 Characteristics of the Proposed Development

The applicant, Blanche Retail Nominee Limited, seeks to apply for planning permission for a Mixed Use Development on Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. The development includes apartments, resident amenity space, commercial units and ancillary services as detailed below.

In summary, proposed mixed use development consists of the construction of 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, in six no. buildings (Blocks A, B, C, D, J and K), ranging from 5 no. to 13 no. storeys in height. The development includes for an extension of the existing multi storey car park from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

The construction of 2 no. additional levels (increasing from 4 no. levels to 6 no. levels) on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the Blocks A, B, C, D, J and K. The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park. The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks. Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the application site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the site boundary.

Provision of telecommunications infrastructure at roof level comprising of 6 no. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3 no. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

The proposed development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2 no. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.





*Figure 4-1: Proposed Development Site Layout (OMP)*

#### **4.3.1 Details of Construction Phase**

A detailed construction programme has not been developed at this stage. However, the Proposed Development will include ground preparation works, site clearance and excavation, development of site infrastructure, construction of buildings and hardstanding areas and landscaping of the site including open soft landscaped areas, provision of utilities and associated civil works, foul and surface water drainage, and public lighting.

#### **4.3.2 Details of Operational Phase**

The Proposed Mixed Use Development will be for residential, retail and community use. It will provide 352 no. apartments, resident amenity space and 5 no. commercial units and 1 no. community facility. The Proposed Development will have provision of various car parking infrastructure, public and communal open space, landscaping and public realm improvements, vehicular accesses and new road infrastructure, cycle parking, 2 no. ESB substations and switchrooms, bin stores and plant rooms, provision of utilities and associated civil works, foul and surface water drainage and public lighting.

The Operational Phase of the Proposed Development will consist of the normal day-to-day operations necessary for the management of multistorey car parks, retail space, such as offices, a gym or food outlets, and the ongoing maintenance of residential units and public and communal amenity space.

#### **4.4 The Existing and Receiving Environment (Baseline Situation)**

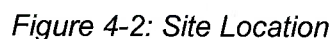
The Proposed Development Site is located at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. The Proposed Development Site comprises the existing surface car park (known as the Library Car Park) to the south east of the Blanchardstown Library and Offices building, the existing surface car park and multi storey car park site (known as the Blue Car Park) located to the south east of the Blanchardstown Centre, a section of Road C and Road D, including the associated roundabout junction, a section of the road and roundabout junction to the Westend Retail Park, and associated verges and footpaths.

The Proposed Development comprises two (2No.) sites which are separated by the Blanchardstown Centre Ring Road.

The southern portion of the Proposed Development Site comprises an overflow carpark for the Blanchardstown Town Centre, and is referred to as the Library Carpark, and is fringed to the north, south and east by a sparsely populated treeline and is bound to the north by the Blanchardstown Centre Ring Road, to the south Major Town Centre zoned lands in use by a Sports & Leisure Club, to the west by Blanchardstown Library and to the east by AIB Blanchardstown.

The northern portion of the Proposed Development Site comprises the existing multi storey car park, located in the Blue Car Park of the Blanchardstown Town Centre and is fringed to the south and east by a sparsely populated treeline. The northern portion of the Proposed Development Site is bound to the north and west by Blanchardstown Town Centre and to the south and east by the Blanchardstown Centre Ring Road.

The Proposed Development Site occupies an area of 2.55 hectares (Ha) and is accessed via the Blanchardstown Centre Ring Road which intersects the Proposed Development Site from east to west.



In terms of the County, Region and the State, population structure and change are more strongly influenced by migration and emigration rates than by birth and death rates. The mid to late 1980s in Ireland was a period of heavy population outflow, mainly due to the poor economic and employment situation in the country at that time. The most recent population estimates (April 2017) published by the Central Statistics Office indicate that the combination of a net inward migration and high birth rates have resulted in the largest annual population increase since 2008. Population projections for Ireland up to 2046 anticipate a population of approximately five million under the most pessimistic scenario and over 6.7 million under the most optimistic scenario. Population projections for Northern Ireland up to 2034 anticipate a population of approximately two million.

In the case of the GDA, population levels specified in the Greater Dublin Regional Planning Guidelines 2010 – 2022 are projected to be in excess of 2 million by the year 2022.

- Between 2006 and 2016 the population increased by 160,183 or 13.49% compared to an average for the State of 12.3%;

- Relatively speaking, there are high levels of young people and fewer older people in Fingal as detailed in Table 4-5 below.

*Table 4-4: Population Change in Greater Dublin Area, 2006 to 2016 Census (Source: CSO)*

County	Population 2006 Census Date	Population 2016 Census Data	Change in Number of Persons	Percentage change in Population
<b>Dublin</b>	1,187,176	1,347,359	160,183	13.49
<b>Kildare</b>	186,335	222,504	36,169	19.41
<b>Meath</b>	162,831	195,044	32,213	19.78
<b>Wicklow</b>	126,194	142,425	16,231	12.86
	<b>1,662,536</b>	<b>1,907,332</b>	<b>244,796</b>	<b>14.72</b>

#### 4.4.2 Population and Age

The social and community needs are assessed based on consideration of the existing and potential population growth and best practice provision. Census data for Small Area Population (SAP's) was used to study the existing demographics. There are 8 different Electoral Districts (ED) across Blanchardstown, which surround the Proposed Development area extending beyond the catchment area, including:

1. Blanchardstown Coolmine
2. Blanchardstown Tyrrelstown
3. Blanchardstown Mulhuddart
4. Blanchardstown Corduff
5. Blanchardstown Abbotstown
6. Blanchardstown Roselawn
7. Blanchardstown Delwood
8. Blanchardstown Blakestown

Population figures from the Central Statistics Office (CSO) Electoral Divisions (ED) data was used to create a profile of the area surrounding the Blanchardstown Town Centre. The population statistics have been calculated by adding together the populations for each of the 8 ED. The demographics for this area are assessed over 2011 and 2016 Census data, in order to obtain a profile of the area.

CSO data for 2016, recorded 1,347,359 persons in living in Dublin City and County, 296,020 of which are living in the Fingal County area. A total of 74,501 persons living in Electoral Divisions (ED), which surround the Proposed Development.



Table 4-5 shows the breakdown of the population of Electoral Divisions based on their age range during the 2016 Census against the Fingal County and State average. This table is further broken down into percentages of the population within these age ranges.

*Table 4-5: Electoral Division, County and National Population Categorisation by Age*

Age Range	Electoral Division		Fingal		Ireland	
	No. of People	% of People	No. of People	% of People	No. of People	% of People
0-4 years	6,662	8.9	24,899	8.4	331,515	7.0
5-24 years	10,533	14.1	81,221	27.4	1,251,489	26.3
25-34 years	6,329	8.5	44,365	15.0	659,410	13.8
35-44 years	4,784	6.4	55,012	18.6	746,881	15.7
45-54 years	26,968	36.2	37,171	12.6	626,045	13.1
55-64 years	14,444	19.4	26,317	8.9	508,958	10.7
65-69 years	2,076	2.8	10,133	3.4	211,236	4.4
70 years and over	2,705	3.6	16,902	5.7	426,331	9.0
<b>Total</b>	<b>74,501</b>		<b>296,020</b>		<b>4,761,865</b>	

As evident from Table 4-5, the population of Electoral Divisions has a higher proportion of older age group people and lower proportion of aging people than the State averages.

In the Electoral Division, the largest portion of the population ranges between 45 to 54 years (36.2% in total), which is much higher than the State average of 13.1%. The percentage of the population in Electoral Division ranging between 25 to 34 years is 8.5% and between 35 to 44 years is 6.4%. These figures are lower than the State averages of 13.8% and 15.7% respectively.

The percentage of the population in the Electoral Division who are aged 70 and over is 3.6% which is lower than that of the State average of 9%.

Children ranging from 0-4 years in the Electoral Division comprise 8.9%, higher than the State average of 7% and the average for Fingal County of 8.4%.

#### **4.4.3 Economic Activity & Employment**

The labour force is defined by the number of people above the legal working age that are available to work. The labour force participation rate is the number of people who are employed and unemployed but looking for a job, divided by the total working-age population.

In 2016, there were 2,304,037 persons in the labour force in Ireland. This represented an increase of 71,834 (3.2%) on 2011 statistics. The substantial increase in retired persons (up 19.2% to 545,407) has impacted on the labour force participation rate, which fell to 61.4%.



The site of the Proposed Development is centrally located in an area which accommodates an extremely wide range of uses and facilities. The Blanchardstown Town Centre, and adjoining lands play a key role in terms of retail and employment, and include a range of existing uses including retail, commercial, residential, hotel, leisure / sports, educational and healthcare, and it adjoins the Millenium Park. The Blanchardstown Town Centre is also centrally located to nearby regional and local employment destinations, facilities, and amenities, including Blanchardstown Village, the National Aquatic Centre, Connolly Memorial Hospital, TUD Blanchardstown, and a number of business parks and industrial estates.

Table 4-6 shows the percentage of the total population aged 15+ who were in the labour force during the 2016 Census. This figure is further broken down into the percentages that were at work or unemployed. It also shows the percentage of the total population aged 15+ who were not in the labour force, i.e. those who were students, retired, unable to work or performing home duties.

*Table 4-6: Economic Status of the Population Aged 15+ in 2016 (Source: CSO)*

Status		ED	% of People	Fingal	% of People	State	% of People
% of population aged 15+ who are in the labour force		No. of People	% of People	No. of People	% of People	No. of People	% of People
% of which are	Employee, Employer or own account worker	23,998	62.3	133,776	59.9	2,001,953	53.3
	Unemployed looking for first regular job	418	1.1	1,850	0.8	31,434	0.8
	Unemployed having lost or given up previous job	2,190	5.7	13,565	6.1	265,962	7.1
	Assisting relative	0	0.0	195	0.1	4,688	0.1
<b>Total population aged 15+ who are in the labour force</b>		<b>26,606</b>	<b>69.1</b>	<b>149,386</b>	<b>66.9</b>	<b>2,304,037</b>	<b>61.4</b>
% of population aged 15+ who are not in the labour force		No. of People	% of People	No. of People	% of People	No. of People	% of People
% of which are	Student or pupil	4,358	11.3	24,273	10.9	427,128	11.4
	Looking after home/family	4,306	11.2	17,677	7.9	305,556	8.1
	Retired	1,439	3.7	24,434	10.9	545,407	14.5
	Unable to work due to permanent sickness or disability	1,453	3.8	7,102	3.2	158,348	4.2
	Other economic status	363	0.9	535	0.2	14,837	0.4
<b>% of population aged 15+ who are not in the labour force</b>		<b>11,919</b>	<b>30.9</b>	<b>74,021</b>	<b>33.1</b>	<b>1,451,276</b>	<b>38.6</b>

When assessing the percentage of people in the labour force, it is noted that 69.1% of the population in the Electoral Division and 66.9% in the Fingal area are in the labour force. This reflects a high number of people of a working profile living within the area and higher than the national percentage of 61.4%.

The percentage of people in the Electoral Division who are an employee, employer or own account worker (62.3%) is higher than the national percentage of 53.3%.

The percentage of people who are unemployed having lost or given up a previous job is 5.7% in the Electoral Division and 6.1% in Fingal, which is lower than the State average of 7.1%. The percentage of people who are unemployed and looking for first regular job is 1.1% in the Electoral Division which is marginally higher than in Fingal and the State average of 0.8%.

The percentage of people in the Electoral Division area that are unable to work due to permanent sickness or disability is 3.8% which is lower than the percentage for the State of 4.2%.

The percentage of people who are retired in the Electoral Division area is 3.7% which is much lower than the percentage for the State of 14.5%.

The most recent publication of monthly unemployment statistics was issued by the CSO in January 2022 for reference month December 2021. The monthly unemployment release contains a series of monthly unemployment rates and volumes. These series are based primarily on the Labour Force Survey and are compiled in accordance with agreed international practice. These statistics are the definitive measure of monthly unemployment. The Live Register is used to provide a monthly series of the numbers of people (with some exceptions) registering for Jobseekers Benefit or Jobseekers Allowance or for various other statutory entitlements at local offices of the Department of Social Protection.

Table 4-7 details the most recent information available from the CSO from January 2022 on the number of persons on the Live Register in the Blanchardstown area. In December 2021, 3,349 people were on the Live Register in the Blanchardstown area.

*Table 4-7: Number of Persons on Live Register, Blanchardstown (Source: CSO)*

Month	July-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
<b>Number of Persons on Live Register, Blanchardstown</b>	3,677	3,616	3,371	3,335	3,425	3,349

According to the CSO Census 2016 data, a total of 94,735 people in the Fingal area, aged 15 years and over, have obtained a Third Level Qualification.

Employment in wholesale and retail trade; repair of motor vehicles and motorcycles is the most prevalent broad industrial area of employment in Fingal as detailed in Table 4-8 below. Human health and social work activities, transportation and storage, education and financial and insurance activities are also predominant areas of employment in Fingal. Table 4-8 also shows that 13,565 people in Fingal are unemployed, having lost or given up a previous job and 1,850 are unemployed looking for first regular job.

*Table 4-8: Population Aged 15+ in the Labour Force Fingal by Broad Industrial Group  
(Source CSO 2016)*

Broad Industrial Group	No. of People
Wholesale and retail trade; repair of motor vehicles and motorcycles	18,675
Human health and social work activities	13,771
Unemployed, having lost or given up previous job	13,565
Industry not stated	11,146
Transportation and storage	10,693
Education	10,258
Financial and insurance activities	9,764
Information and communication	8,305
Manufacturing	7,900
Professional, scientific and technical activities	7,801
Public administration and defence; compulsory social security	7,730
Accommodation and food service activities	7,139
Administrative and support service activities	6,399
Construction	5,866
Other service activities	2,625
Arts, entertainment and recreation	2,361
Unemployed looking for first regular job	1,850
Agriculture, forestry and fishing	1,193
Electricity, gas, steam and air conditioning supply	840
Real estate activities	695
Water supply; sewerage, waste management and remediation activities	479
Activities of households as employers producing activities of households for own use	189
Activities of extraterritorial organisations and bodies	91
Mining and quarrying	51
<b>Total in labour force</b>	<b>149,386</b>

As with employment, the number of persons in the labour force is also influenced by changes in the size of the working age population (demographic effect). Up to the start of 2008 this demographic effect had been adding at least 30,000 to the labour force, nationally, on an annual basis, primarily driven by net inward migration. The decline in inward migration saw the positive demographic effect starting to fall in the second half of 2007. Inward migration continued to decline throughout 2008 and 2009 before becoming negative in Q3 2009. The negative demographic effect continued for each quarter until Q1 2014. The demographic effect has been positive since Q2 2014 and in Q1 2019 a positive demographic effect contributed an increase of 36,000 to the overall change in the labour force.

#### **4.4.4 Tourism and Amenities**

Dublin is a vibrant and cosmopolitan city. The medieval city has an abundance of tourist attractions and offers tourists an opportunity to experience historical attractions, sporting events, cultural life, parks and walks of the coastline.

Some popular tourist attractions include The Guinness Storehouse, The Book of Kells and Trinity College, Dublin Castle, St Patrick's and Christ Church Cathedrals, Dublin Zoo as well as various galleries, Dublin Bay cruises and walks.

Some popular city parks include St Stephen's Green, Phoenix Park, St. Annes Park, Iveagh Gardens, Dubh Linn Gardens, Garden of Remembrance.

The numerous cultural and man-made attractions are easy to access via national roads, airports, and ports.

Tourism and recreation make a positive contribution to the economic and social wellbeing of Dublin City and County. In 2016, income from tourists and visitors from overseas to Dublin was in the region of €1,975m. The income from domestic visitors was € 278.2m in 2016. Fáilte Ireland, the national tourism development authority, aims to guide and promote tourism as a leading indigenous component of the Irish economy.

The Site of the Proposed Development due to its location is not considered to be of importance to tourism. However Blanchardstown Town Centre is designated as a Metropolitan Consolidation Town under the Eastern & Midland Regional Assembly Regional Spatial and Economic Strategy (RSES) 2019 and a Level 2 'Major Town Centre' in the Retail Strategy for the Greater Dublin Area. The Town Centre is now one of the key retail locations within Fingal and the Greater Dublin Area within excess of 170,000 sq.m of retail floor space. Blanchardstown Town Centre and adjoining lands play a key role in terms of retail and employment, and include a range of existing uses including retail, commercial, residential, hotel, leisure / sports, educational and healthcare, and it adjoins the Millennium Park. The Blanchardstown Town Centre is also centrally located to nearby regional and local employment destinations, facilities, and amenities, including Blanchardstown Village, the National Aquatic Centre, Connolly Memorial Hospital, TUD Blanchardstown, and a number of business parks and industrial estates.

#### **4.4.5 Landscape and Visual**

The lands surrounding the Proposed Development Site are zoned 'MC' Major Town Centre, 'RS' Residential, 'OS' Open Space and 'CI' Community Infrastructure under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).

There are no protected views, rights of way or planned pieces of strategic infrastructure or any important tourist sites affected in any way by the Proposed Development. Overall, it is not considered there will be any significant long-term impacts on the built services and infrastructure as a result of the Proposed Development.



#### 4.4.6 Human Health

Health, as defined by the World Health Organization (WHO), is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The Healthy Ireland Framework 2013-2025 defines health as 'everyone achieving his or her potential to enjoy complete physical, mental and social wellbeing. Healthy people contribute to the health and quality of the society in which they live, work and play'. This framework also states that health is much more than an absence of disease or disability, and that individual health, and the health of a country affects the quality of everyone's living experience.

Health is an essential resource for everyday life, a public good and an asset for health and human development. A healthy population is a major asset for society and improving the health and wellbeing of the nation is a priority for Government. Healthy Ireland Framework 2013-2025 is a collective response to the challenges facing Ireland's future health and wellbeing.

Table 4-9: Health Status of Fingal & Electoral Division (Source: CSO)

General Health	Fingal	% of People	ED	% of People
General health - Very good	184,048	62.2	43,988	59.0
General health - Good	77,917	26.3	20,850	28.0
General health - Fair	18,376	6.2	4,939	6.6
General health - Bad	3,109	1.1	899	1.2
General health - Very Bad	695	0.2	173	0.2
Not stated	11,875	4.0	3,652	4.9
<b>Total Number of People</b>	<b>296,020</b>		<b>74,501</b>	

Table 4-12 shows that the majority of people in Fingal (88.5%) and Electoral Division (87.0%) have self-identified themselves in the 2016 Census as having 'very good health' or 'good health'.

##### 4.4.6.1 COVID-19

The COVID-19 pandemic has affected Ireland's economy and society since the first case of the virus was confirmed in Ireland at the end of February 2020. On 11th March 2020, the World Health Organisation (WHO) declared COVID-19 to be a global pandemic.

Infection with the virus that causes COVID-19 can result in illness, ranging from mild to severe. In some cases, the virus can be life threatening or even fatal. It can take up to 14 days for symptoms to show. Symptoms can be similar to symptoms of cold and flu.

Exposure to COVID-19 is a public health risk, which affects every member of society. The COVID-19 pandemic has implications for all workplaces as it may present a health risk to workers.



The Work Safely Protocol, which was originally published in November 2020 (and has since been periodically updated) reflected the Government's Resilience and Recovery 2020-2021: Plan for Living with COVID19 as well as updating the public health advice available at that time. Since its publication, Ireland has faced additional measures, introduced nationally and locally, to address the continued risks from COVID-19, in particular the new variants of concern identified. The Work Safely Protocol is the result of a collaborative effort, led by the Department of Enterprise, Trade and Employment, and involving primarily the Health and Safety Authority (HSA), with significant input by public health from the Department of Health and the Health Services Executive (HSE).

Ireland's society continues to adhere to the public health advice. All public health advice that will be in place, at the time of commencement of the construction and Operational Phases of this Proposed Development, will be adhered to in order to protect human and public health. In spite of Covid-19, public investment in construction in Ireland in 2020 and 2021 remained among the highest in the EU.

#### 4.4.7 Social Health

According to the World Health Organisation, poor social and economic circumstances affect health throughout life. Good health involves reducing levels of educational failure, reducing insecurity and unemployment, and improving housing standards.

Health is influenced, either positively or negatively, by a variety of factors. Some of these factors are genetic or biological and are relatively fixed. '*Social determinants of health*' arise from the social and economic conditions in which people live. They are not so fixed such as type of housing and environments, access to health or education services, incomes generated and the type of work people do, can all influence a person's health, and the lifestyle decisions people make.

A range of factors have been identified as social determinants of health, these generally include the wider socio-economic context, inequality; poverty, social exclusion, socio-economic position, income, public policies, health services, employment, education, housing, transport, the built environment, health behaviours or lifestyles, social and community support networks and stress.

People who are less well off or who belong to socially excluded groups tend to fare badly in relation to these social determinants. Being at work on the other hand provides not only an income, but also access to social networks, a sense of identity and opportunities for development or progression.

Figure 4-3 presents the social determinants of health adapted from Dalghren and Whitehead (1991) and Grant and Barton (2006) as presented in Healthy Ireland.



Section 4.4.3 of this Chapter states 69.1% of the population in the Electoral Division are in the labour force. This reflects the high number of people of a working profile living within the area. The percentage of people working (employer or own account worker and employee) is 69.1% for the Electoral Division, which is higher than the percentage for the State of 53.3%.

As detailed in Table 4-12, the majority of people in Fingal (88.5%) and Electoral Division (87.0%) have self-identified themselves in the 2016 Census as having 'very good health' or 'good health'. The high employment levels, coupled with the self-identification of health status in both Dunboyne and Fingal, indicating that positive social health conditions exist.

## 4.5 Potential Impact of the Proposed Development

The population in the vicinity of the Site of the Proposed Development has been assessed in terms of demography, economic activity and employment, tourism and amenity, landscape and visual, human health and social health.

'Environmental factors play a central role in human development, health and disease. Broadly defined, the environment, including infectious agents, is one of three primary factors that affect human health. The other two are genetic factors and personal behaviour. As the impact of the environment on human health is so great, protecting the environment has long been a mainstay of public health practice. National and local efforts to ensure clean air and safe supplies of food and water, to manage sewage and municipal wastes, and to control or eliminate vector-borne illnesses have contributed a great deal to improvements in public health' (Centre for Environmental Research, 2010).

The Proposed Development has the potential to provide employment opportunities and health improvements. Employment and income are among the most significant determinants of long-term health, influencing a range of factors including the quality of housing, education, diet, lifestyle, coping skills, access to services and social networks.

The provision of a residential accommodation development consisting of 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, will contribute towards easing the housing crisis in Ireland, population increase will support the local economy during the Operational Phase and will result in approximately 50 jobs being created.

Therefore, the Proposed Development will have a significant, permanent, positive effect on Population and Human Health in terms of additional direct and indirect employment and on the local socio-economic environment.

### 4.5.1 Construction Phase

The Proposed Development has the potential to cause additional traffic, noise, dust, or visual impacts. Each of these impacts has been assessed in full in the respective chapters of this EIAR - Chapter 8 (Air Quality) Chapter 10 (Noise and Vibration) and Chapter 11 (Landscape and Visual Amenity). The impact of these on the population or human health during the Construction Phase will be negative, short-term, significant and localised.

#### 4.5.1.1 Human Health

The Proposed Development has the potential to provide health improvements due to the creation of additional employment. Employment and income are among the most significant determinants of long-term health. It is anticipated that up to 450 no. construction personnel will be employed either directly or indirectly during the Construction Phase which is anticipated to extend over a period of approximately 24-30 months. This will be a positive, short term impact due to the creation direct and indirect employment during the Construction Phase.

The Proposed Development has the potential to result in the spread of COVID-19 if social distancing and hygiene measures are not adhered to at the facility. COVID-19 is a new illness that can affect your lungs and airways. It is caused by a virus called coronavirus. Coronavirus is spread in sneeze or cough droplets.

During the Construction Phase of this Proposed Development HSE guidelines will be adhered to in relation to social distancing, cough and sneeze etiquette, face masks and hand washing. Appropriate welfare facilities will be provided at the facility. Frequently touched objects and surfaces such as door handles, machine steering wheels and gear levers will be cleaned and disinfected frequently.

The Governments 'Work Safely Protocol' and the Construction Industry Federation 'Back to Work Resource Pack ' will be adhered to. All construction staff will complete the relevant HSA Return to Work Safely Online Courses prior to commencing work on-site.

The impact from the construction works are considered to be negligible. If all COVID-19 safety protocols and hygiene measures are adhered to it is considered that the development poses no additional COVID-19 risk.

#### **4.5.2 Operational Phase**

##### **4.5.2.1 Population & Settlement Patterns**

###### **4.5.2.1.1 Population and Demographic**

During the Operational Phase of the Proposed Development, the demographic profile will change with additional people moving into the locality. The Proposed Development will have a positive effect with respect to the maintaining of a sustainable age demographic, slight in significance and permanent in duration.

###### **4.5.2.1.2 Population and Age**

The changing demographic profile during the Operational Phase of the Proposed Development is likely to ensure a balanced age profile within the local area. The Proposed Development will have a positive effect in terms of changing age profile, imperceptible in significance and permanent in duration.

##### **4.5.2.2 Socio-Economic**

###### **4.5.2.2.1 Economic Activity & Employment**

The Proposed Development will allow for the creation of new employment. It is proposed that approximately 50 people directly employed during the Operational Phase having a positive impact, both directly and indirectly to the local economy and employment.

The Proposed Development will provide 352 no. residential units and will cater for a wide cohort of persons who will utilise existing services and amenities in the local area which will ultimately be a positive impact on the local economy. Therefore the Proposed Development will benefit the local economy as a result of the increase in population at the site, as they will bring significantly increased spending power into the local economy and create a stronger and



more vibrant community in the centre of Blanchardstown. Furthermore the Proposed Development will result in the direct creation of approximately 50 additional jobs. Indirect employment will also be created as a result of the Proposed Development at nearby retail shops, cafes & restaurants and service providers.

The Proposed Development will have a slight, positive, long term socio-economic effect.

#### **4.5.2.2.2 Traffic**

The Proposed Development has been designed in accordance with national best practice, namely the *Design Manual for Urban Roads and Streets (DMURS)* and the *Design Standards for New Apartment, Guidelines for Planning Authorities*. Furthermore, the proposed parking provision for the Proposed Development is in accordance with *Fingal County Council Development Plan 2017-2023* and the *Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities, December 2020*.

The Proposed Development Site is well located, served by public transport and is within a short distance of key employment locations such as Blanchardstown Village, the National Aquatic Centre, Connolly Memorial Hospital, TUD Blanchardstown, and a number of business parks and industrial estates.

A Traffic and Transportation Assessment (TTA) prepared by Clifton Scannell Emerson Associates Limited (CSEA, *January 2022*), provides further detail in relation to the existing and proposed public transport facilities serving the Proposed Development Site. TTA outlines the development's impacts to the operation of local road network. It was concluded that the local road network will operate within capacity and at satisfactory levels during peak hours for all assessment years. Therefore, the impact of the Proposed Development is considered long-term, neutral, and imperceptible. During the construction stage, the impact of the Proposed Development is expected to be short-term, negative, and not significant.

#### **4.5.2.3 Tourism and Amenities**

All of the local amenities referenced in Section 4.4.4 above will remain in place during the Construction and Operational Phase of the Proposed Development. Furthermore, the potential viability of these amenities going forward will be strengthened from the increased population of the area. Therefore, the effects on community and amenities is deemed to be long-term, slightly positive or neutral and not significant.

#### **4.5.2.4 Landscape & Visual Effects**

A full assessment of the potential impact of the Proposed Development on the heritage sites and surrounding areas is carried out under Chapter 10 (Landscape and Visual) and Chapter 11 (Archaeology and Cultural Heritage) of the EIAR.

According to Planning Report prepared by John Spain Associates (*August 2021*) and draft Planning Application Landscape Strategy prepared by Cameo & Partners (*January 2022*), the landscape design and layout includes provision of both public open space, public realm improvements and communal open space. The proposed public open space provision of 0.1113 ha exceeds the minimum 10% public open space required by the Fingal Development Plan. It is recognised that the public open space provision falls below the Development Plan



requirements under objectives PM52 and DMS57, which relates to the provision of 2.5 hectares of open space per 1,000 population. However, it is considered that such standards are more appropriate for greenfield sites and new residential developments and that the 10% minimum standard is the most applicable to a Major Town Centre residential development. Furthermore, provision of 2.177 sqm for communal open space is also made. Minimum requirement for communal open space for apartments as per Appendix 1 of the APG's is 2,104 sq.m based on current mix. Furthermore, 0.2661 ha of public realm improvements is also proposed for the site. On this basis and taking into account the existing Class 1 Public Open Space in close proximity to the site, including the regional parks at Millennium Park and Tolka Valley Regional Park and the existing local parks, it is considered that the proposed open space provision accords both with the Fingal Development Plan and national policy, in particular the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009). Please refer to Cameo's Landscape Strategy and drawings for full details of the landscaping, public open space and communal open space provision for the Proposed Development.

A photomontages were prepared by Visual Lab Limited to assess the visual effect of the Proposed Development on surrounding receptors. Moderate long-term changes to views and visual amenity as experienced by individuals or groups of people is concluded within the report.

The visual impacts are considered neutral, moderate, and long term for the Operational Phase.

#### **4.5.2.5 Human Health**

The Proposed Development has the potential to provide health improvements due to the creation of additional employment. Employment and income are among the most significant determinants of long-term health. It is proposed that approximately 50 jobs will be created during the Operational Phase of this development. The Proposed Development will create a modern living environment adjacent to Blanchardstown Shopping Centre and close to a wide range of amenities within easy commuting distance of the City Centre providing locally positive health benefits to its residents.

Therefore this will be a positive, moderate effect and long-term impact.

The Proposed Development may result in the spread of COVID-19 if social distancing and hygiene measures are not adhered to at the facility during the Operational Phase. During the Operational Phase of this Proposed Development HSE guidelines will be adhered to in relation to social distancing, cough and sneeze etiquette, face masks and hand washing.

All workers employed during the Operational Phase of the Proposed Development will comply with the relevant HSE guidelines and any Government protocols that will be in place at that point in time in relation to Covid-19.

If all COVID-19 safety protocols and hygiene measures are adhered to it is considered that the development poses no additional COVID-19 risk.

### 4.5.3 Potential Cumulative Impacts

Cumulative Impacts can be defined as “*impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project*”. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

The cumulative effects of the Proposed Development on the Population and Human Health have been assessed taking other planned, existing and permitted developments in the surrounding area into account.

Table 4-10 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

*Table 4-10 Summary of Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	<b>Green Mall (Also known as the Central Mall) &amp; Yellow Mall</b>	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>“The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use.”</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>

FW18A/0168	Blue Mall	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	<p>There is a potential cumulative impact on road users and safety, which are located in close proximity to the Proposed Development.</p> <p>During the Construction Phase, there will be some traffic impacts on the receiving environment by virtue of the works related traffic.</p> <p>During the Operational Phase of the Proposed Development there are likely to be some impacts on the receiving environment, though it is anticipated that these will be not significant in an existing suburban environment. It is predicted that the Proposed Development will have positive cumulative effects on urban settlements in the form of employment, access and transport infrastructure by allowing movement through a previously impermeable area.</p>
FW20A/0030 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>

<b>FW20A/0018</b> <b>(Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration. Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works"</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>FW17A/0147</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>18/4206</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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<b>FW19A/0017</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>dac/145/19</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Cent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
<b>19/4224</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<b>FW18A/0116</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	
<b>18/4234</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	
<b>FW18A/0011</b>	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway"</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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There is a potential cumulative impact on road users and safety from the permitted planning applications, which are located in close proximity to the Proposed Development. During the Construction Phase, there will be some traffic impacts on the receiving environment by virtue of the works related traffic. Measures to address these impacts are detailed in the Construction Environmental Management Plan (CEMP) and they will be slight and short-term.

During the Operational Phase of the Proposed Development there are likely to be some impacts on the receiving environment, though it is anticipated that these will be not significant in an existing suburban environment. It will provide additional people to sustain the public transport network. The impact due to the increase in number of people potentially travelling and commuting will be not significant, with a neutral long-term effect. Detailed information on the Traffic impact of the proposed development is included in Chapter 13 Material Assets: Traffic, Waste and Utilities.

It is predicted that the Proposed Development will have positive cumulative effects on urban settlements in the form of employment, access and transport infrastructure by allowing movement through a previously impermeable area.

#### 4.5.4 “Do Nothing” Impact

The Do-Nothing scenario would result in the Site remaining in operation at its current capacity as a multistorey car park and a surface level carpark. The existing employment numbers at

the Site would remain unchanged. However, the additional direct employment predicted as a result of the Construction and Operational phase would not be created. This may result in a negative socio-economic impact.

If the lands were to remain undeveloped, this would be an under-utilisation of zoned and serviceable urban lands from a sustainable planning and development perspective, particularly considering the location of the lands. Blanchardstown Town Centre is designated as a Metropolitan Consolidation Town under the Eastern & Midland Regional Assembly Regional Spatial and Economic Strategy (RSES) 2019 and a Level 2 'Major Town Centre' in the Retail Strategy for the Greater Dublin Area. A failure to deliver the Proposed Development would result in a growing need for additional residential units within the Greater Dublin Area not being met, with implications for use of greenfield lands more remote from the city centre and from established services in the transport, education, social and commercial sectors.

## **4.6 Avoidance, Remedial & Mitigation Measures**

### **4.6.1 Construction Phase**

During the Construction Phase of this Proposed Development HSE guidelines will be adhered to in relation to social distancing, cough and sneeze etiquette, face masks and hand washing. Appropriate welfare facilities will be provided at the facility. Frequently touched objects and surfaces such as door handles, machine steering wheels and gear levers will be cleaned and disinfected frequently.

The Governments 'Work Safely Protocol' and the Construction Industry Federation 'Back to Work Resource Pack' will be adhered to. All construction staff will complete the relevant HSA Return to Work Safely Online Courses prior to commencing work on-site.

No specific mitigation measures are required during the Construction Phase of the Proposed Development in relation to population and settlements, given the lack of direct effects resulting from the Proposed Development. However, where required, mitigation measures in relation to air emissions (dust), noise, traffic, waste etc. are identified in their respective chapters in this EIA Report.

### **4.6.2 Operational Phase**

All HSE guidelines published to protect against the spread of COVID-19 will be adhered to during the Operational Phase of the Proposed Development. These HSE guidelines may relate to social distancing, cough and sneeze etiquette, face masks and hand washing.

All workers employed during the Operational Phase of the Proposed Development will comply with the relevant HSE guidelines and any Government protocols that will be in place at that point in time in relation to Covid-19.

No specific mitigation measures are required in relation to population and settlements, given the lack of direct effects resulting from the Proposed Development. However, where required, mitigation measures in relation to air emissions, noise, traffic etc. are identified in their respective chapters in this EIA Report.



#### 4.6.3 “Worst Case” Scenario

If mitigations measures relating to COVID-19 fail there is a risk that there may be an outbreak of COVID-19 at the facility. An outbreak of COVID-19 is when two or more cases of the disease are linked by time, place or person. The ‘*General Guide on Management of COVID-19 Outbreaks in the Workplace*’, published in June 2021 by the HSE (or other updated HSE and Government protocols that are in place at that point in time) will be adhered to if any employees test positive for COVID-19. In some instances, it may be necessary to close the workplace in order to control the spread of COVID-19.

#### 4.7 Residual Impacts

Residual Impacts are defined as ‘*effects that are predicted to remain after all assessments and mitigation measures*’. They are the remaining ‘environmental costs’ of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts. Potential residual impacts from the Proposed Development were considered as part of this environmental assessment.

No negative residual impacts in the context of population and human health are anticipated regarding this Proposed Development.

The Construction Phase will create construction employment in the area which will have a positive effect on local businesses who might benefit from increased custom to their services (e.g. petrol stations, food, retail and hardware supplies services). The increased employment will also enhance the local economy within the area which will have a short-term positive impact on local settlement as a result.

Operational Phase of the Proposed Development will have the potential to create employment (retail units, maintenance and management of the Proposed Development) which will have a long-term positive impact on the local socio-economic environment.

The development will also provide additional housing options for those already employed in the area, which will reduce commute times. There will be a permanent major positive impact on local settlement as a result of the Proposed Development.

#### 4.8 Monitoring

##### 4.8.1 Construction Phase

No specific monitoring measures are proposed or required in relation to Population and Human Health for the Construction Phase of the Proposed Development.

Monitoring activities proposed for the Construction Phase in accordance with the CEMP submitted with the planning application.

The monitoring of construction dust during the Construction Phase of the Proposed Development is recommended to ensure that impacts on air quality are not experienced beyond the Site boundary and human health is not affected.

A full traffic assessment has been completed as part of Chapter 12 (Material Assets) and a Noise Impact Assessment as part of Chapter 9 (Noise and Vibration). Please refer to these specific Chapters for any proposed monitoring.

#### **4.8.2 Operational Phase**

No specific monitoring measures are required in relation to Population and Human Health, given the lack of direct effects resulting from the Proposed Development. However, where required, monitoring in relation to air emissions, water, noise and traffic are identified in their respective chapters in this EIA Report.

### **4.9 Interactions**

#### **4.9.1 Air Quality**

Interactions between Air Quality and Population and Human Health have been considered as the Operational Phase has the potential to cause health issues as a result of impacts on air quality from dust nuisances and potential traffic derived pollutants. However, the mitigation measures employed at the Proposed Development will ensure that all impacts are compliant with ambient air quality standards and human health will not be affected. The Air Quality and Climate Chapter notes that the impact of the Proposed Development on air quality and climate is predicted to be negligible with respect to the Operational Phase in the long term. Furthermore, traffic-related pollutants which may affect Population & Human Health have been deemed as negligible, therefore will not have a significant impact on population and human health.

#### **4.9.2 Hydrology**

Hydrology has been fully assessed in Volume 2, Chapter 7 of this EIAR. No public health issues associated with the water (hydrology and hydrogeology) conditions at the Site have been identified for the Construction Phase or Operational Phase of the Proposed Development.

Appropriate industry standards and health and safety legislative requirements will be implemented during the Construction Phase that will be protective of site workers.

#### **4.9.3 Noise**

Noise is fully assessed in Volume 2, chapter 10. The nearest noise sensitive receptors are 190m from the Site. The impact assessment of noise and vibration has concluded that additional noise associated with the operation of the facility will not create any noise nuisance beyond the Site boundary.

The Proposed Development Site is suitable for mixed use development subject to the provision of the noise control recommendations as outlined within the Noise chapter of this report. Mitigation and monitoring measures will be incorporated to further reduce the potential for noise generation from the Proposed Development.

No human health impacts are anticipated as a result of noise during the Operational Phase of the Proposed Development.

#### **4.9.4 Landscape & Visual**

There are no protected views, rights of way or planned pieces of strategic infrastructure or any important tourist sites effected in any way by the Proposed Development. Overall, it is not considered there will be any significant long-term impacts on the Landscape and Visual as a result of the Proposed Development.

#### **4.9.5 Traffic**

There can be a significant interaction between population and human health and traffic. This is due to traffic-related pollutants that may arise. The Proposed Development will have no significant impact on traffic volumes in the local network, and therefore traffic will not result in any significant impact on Population and Human Health.

#### **4.10 Difficulties Encountered When Compiling**

No difficulties were encountered in the preparation of this Chapter of the EIAR.

#### **4.11 References**

*The Central Statistics Office (CSO)*

*Fingal County Development Plan 2017-2022,*

*The Regional Planning Guidelines of the Greater Dublin Area 2010-2022*

*Ordinance Survey Ireland (OSI)*

*WHO. Ottawa Charter for Health Promotion First International Conference on Health Promotion Ottawa, 21 November 1986 - WHO/HPR/HEP/95.1. 1986.*

*WHO. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948. 1946.*

*Healthy Ireland Framework 2013-2025*

*Farrell, C., McAvoy, H., Wilde, J. and Combat Poverty Agency (2008), Tackling Health Inequalities – An All-Ireland Approach to Social Determinants. Dublin: Combat Poverty Agency/Institute of Public Health in Ireland.*

*Wilkinson, Richard; Marmot, Michael, eds. (2003). The Social Determinants of Health: The Solid Facts (PDF) (2nd ed.). World Health Organization Europe.*

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

*Work Safely Protocol COVID-19 National Protocol for Employers and Workers (Government of Ireland, V14, May 2021)*

*General Guide on Management of COVID-19 Outbreaks in the Workplace' (HSE, June 2021)*

## 5 BIODIVERSITY

### 5.1 Introduction

This Chapter describes the Biodiversity of the Site of the Proposed Development and surrounding environs, with emphasis on habitats, flora and fauna, and details the methodology of assessment used in each case. It provides an assessment of the impacts of the Proposed Development on habitats and species, particularly those protected by national and international legislation, or considered to be of particular Conservation Importance; and proposes measures for the mitigation of these impacts, where appropriate.

The Chapter has been completed having regard to the *Guidelines for Ecological Impact Assessment in the UK and Ireland, by the Chartered Institute of Ecology and Environmental Management* (CIEEM, 2018), together with the guidance outlined in the Environmental Protection Agency documents *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (Draft, August 2017), and *Advice Notes for Preparing Environmental Impact Statements* (Draft, September 2015). The value of the ecological resources, the habitats and species present or potentially present, was determined using the ecological evaluation guidance given in the National Roads Authority's (Now Transport Infrastructure Ireland TII) *Ecological Assessment Guidelines* (NRA, 2009)

#### 5.1.1 Quality assurance and competence

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. Enviroguide Senior Ecologist Liam Gaffney, the author of this chapter, undertook the habitat, fauna and flora surveys for this assessment. Liam Gaffney has a B.Sc. in Zoology (Hons) and a M.Sc. (Hons) in Wildlife Conservation and Management, from University College Dublin, and a wealth of experience in desktop research, literature scoping-review, and report writing, as well as practical field experience (Habitat surveys, Invasive species surveys, Wintering bird surveys, large mammals, fresh water macro-invertebrates etc.). Liam has extensive experience in compiling Biodiversity Chapters of EIARs, EclAs, AA screening and NIS reports, and in the overall assessment of potential impacts to ecological receptors from a range of developments. Liam is also a Qualifying member of CIEEM, the Chartered Institute of Ecology and Environmental Management.

#### 5.1.2 Relevant Legislation

##### 5.1.2.1 National Legislation

##### **Wildlife Act 1976 and amendments**

The Wildlife Act 1976 was enacted in order to provide protection to birds, animals and plants in Ireland and to control activities which may have an adverse impact on the conservation of wildlife. In regard to the listed species, it is an offence to disturb, injure or damage their breeding or resting place wherever these occur without an appropriate licence from National Parks and Wildlife Service (NPWS). This list includes all birds along with their nests and eggs. Intentional destruction of an active nest from the building stage up until the chicks have fledged is an offence. This includes the cutting of hedgerows from the 1st of March to the 31st of August.



The Act also provides a mechanism to give statutory protection to Natural Heritage Areas (NHAs) from the date they are proposed for designation i.e., at a time they become proposed Heritage Areas (pNHAs). The Wildlife Amendment Act 2000 widened the scope of the Act to include most species, including the majority of fish and aquatic invertebrate species which were excluded from the 1976 Act.

### **EU Habitats Directive 1992 and EC (Birds and Natural Habitats) Regulations 2011**

**Invasive Species Legislation** The EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive 1992) provides protection to particular species and habitats throughout Europe. The Habitats Directive has been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011.

Annex IV of the EU Habitats Directive provides protection to a number of listed species, wherever they occur. Under Regulation 23 of the Habitat Directive any person who, in regard to the listed species; "Deliberately captures or kills any specimen of these species in the wild, deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration, deliberately takes or destroys the eggs from the wild, or damages or destroys a breeding site or resting place of such an animal shall be guilty of an offence."

### **Flora (Protection) Order, 2015**

The Flora (Protection) Order (S.I. No. 356/2015) affords protection to several species of plant in Ireland, including 68 vascular plants, 40 mosses, 25 liverworts, 1 stonewort and 1 lichen. This Act makes it illegal for anyone to uproot, cut or damage any of the listed plant species and it also forbids anyone from altering, interfering, or damaging their habitats. This protection is not confined to within designated conservation sites and applies wherever the plants are found.

### **Invasive Species Legislation**

Certain plant species and their hybrids are listed as Invasive Alien Plant Species in Part 1 of the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations 2011* (SI 477 of 2011, as amended). In addition, soils and other material containing such invasive plant material, are classified in Part 3 of the Third Schedule as vector materials and are subject to the same strict legal controls.

Failure to comply with the legal requirements set down in this legislation can result in either civil or criminal prosecution, or both, with very severe penalties accruing. Convicted parties under the Act can be fined up to €500,000.00, jailed for up to 3 years, or both.

Extracts from the relevant sections of the regulations are reproduced below.

*"49(2) Save in accordance with a licence granted [by the Department of Arts, Heritage and the Gaeltacht], any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in anyplace [a restricted non-native plant], shall be guilty of an offence.*

*49(3) ... it shall be a defence to a charge of committing an offence under paragraph (1) or (2) to prove that the accused took all reasonable steps and exercised all due diligence to avoid committing the offence.*

*50(1) Save in accordance with a licence, a person shall be guilty of an offence if he or she [...] offers or exposes for sale, transportation, distribution, introduction, or release—*

*(a) an animal or plant listed in Part 1 or Part 2 of the Third Schedule,*

*(b) anything from which an animal or plant referred to in subparagraph (a) can be reproduced or propagated, or*

*(c) a vector material listed in the Third Schedule, in any place in the State specified in the third column of the Third Schedule in relation to such an animal, plant or vector material.”*

### **5.1.2.2 International Legislation**

#### **EU Birds Directive**

The Birds Directive provides a level of general protection for all wild birds throughout the European Union. Annex I of the Birds Directive includes a total of 194 bird species that are considered rare, vulnerable to habitat changes or in danger of extinction within the European Union. Article 4 establishes that there should be a sustainable management of hunting of listed species, and that any large scale non-selective killing of birds must be outlawed. The Directive requires the designation of Special Protection Areas (SPAs) for: listed and rare species, regularly occurring migratory species and for wetlands which attract large numbers of birds. There are 25 Annex I species that regularly occur in Ireland and a total of 154 Special Protection Areas have been designated.

#### **EU Habitats Directive**

The Habitats Directive aims to protect some 220 habitats and approx. 1000 species throughout Europe. The habitats and species are listed in the Directives annexes where Annex I covers habitats and Annex II, IV and V cover species. There are 59 Annex I habitats in Ireland and 33 Annex IV species which require strict protection wherever they occur. The Directive requires the designation of Special Areas of Conservation for areas of habitat deemed to be of European interest. The SACs together with the SPAs from the Birds Directive form a network of protected sites called Natura 2000 and are herein referred to as ‘European Sites’.

#### **Bern and Bonn Convention**

The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982) was enacted to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was introduced in order to give protection to migratory species across borders in Europe.

#### **Ramsar Convention**

The Ramsar Convention on Wetlands is an intergovernmental treaty signed in Ramsar, Iran, in 1971. The treaty is a commitment for national action and international cooperation for the conservation of wetlands and their resources. In Ireland there are currently 45 Ramsar sites which cover a total area of 66,994ha.

## **5.2 Study Methodology**

This section details the steps and methodology employed to undertake an Ecological Impact Assessment of the Proposed Development.

### 5.2.1 Scope of Assessment

The specific objectives of the study were to:

- Undertake baseline ecological surveys and evaluate the nature conservation importance of the Site of the Proposed Development.
- Identify and assess the direct, indirect, and cumulative ecological implications or impacts of the Proposed Development during its lifetime.
- Where possible, propose measures to remove or reduce those impacts at the appropriate stage of the Proposed Development.

### 5.2.2 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources pertaining to the site's natural environment. The desk study, completed February 2022, relied on the following sources:

- Information on species records and distributions, obtained from the National Biodiversity Data Centre (NBDC) at [maps.biodiversityireland.ie](https://maps.biodiversityireland.ie)
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at [gis.epa.ie](https://gis.epa.ie)
- Information on bedrock, groundwater, aquifers and their status, obtained from Geological Survey Ireland (GSI) at [www.gsi.ie](https://www.gsi.ie)
- Information on the network designated conservation sites, site boundaries, qualifying interests and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at [www.npws.ie](https://www.npws.ie)
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland
- Information on the existence of permitted development, or developments awaiting decision, in the vicinity of the Proposed Development using sources such as the National Planning Application Map Viewer at [www.myplan.ie](https://www.myplan.ie)
- Information on the extent, nature and location of the Proposed Development, provided by the applicant and/or their design team.
- The current conservation status of birds in Ireland taken from Gilbert, Stanbury & Lewis (2021).

A comprehensive list of all the specific documents and information sources consulted in the completion of this report is provided in Section 5.13 References.

### 5.2.3 Field Surveys

#### 5.2.3.1 Habitat Surveys

Habitat and botanical surveys of the Site of the Proposed Development were conducted by Enviroguide on the 2<sup>nd</sup> of September 2021. Habitats were categorised according to the Heritage Council's 'A Guide to Habitats in Ireland' (Fossitt, 2000) to level 3. The habitat mapping exercise had regard to the 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., 2010) published by the Heritage Council. Habitats within the surrounding area of

the Proposed Development were classified based on views from the Site and satellite imagery where necessary (Google Earth, Digital Globe and OSI).

#### **5.2.3.2 Invasive Species Surveys**

An invasive flora survey was carried out in tandem with the habitat survey of the Site. The survey focused on those high-risk species listed as Invasive Alien Plant Species in Part 1 of the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations* 2011 (SI 477 of 2011, as amended), however, other known lower risk species were also identified and noted where present.

#### **5.2.3.3 Mammal Surveys (exc. Bats)**

General mammal surveys of the Site were carried out in conjunction with the habitat survey on 2<sup>nd</sup> of September 2021. The Site was searched for tracks and signs of mammals and their activities. The habitat types recorded throughout the survey area were used to assist in identifying the fauna considered likely to utilise the area.

#### **5.2.3.4 Bat Surveys**

Due to the highly anthropogenic nature and low biodiversity value of the Site i.e., well-lit hardstanding car parking areas with minimal, largely ornamental tree planting, the Site was considered of low to no value for bats and a bat activity survey was not deemed necessary. There are no mature trees of note present at the Site and the only native treeline present (along the Site's western boundary) is largely being retained in the project design.

#### **5.2.3.5 Bird Survey**

A bird survey was conducted at the Site of the Proposed Development on the 2<sup>nd</sup> of September 2021. The survey methodology followed the British Trust for Ornithology's (BTO) *Common Bird Census* (CBS) technique (Bibby *et al*, 1992). The Site was walked with all bird species encountered recorded on field sheets, with location (on 1:500 field maps), behaviour and numbers.

It is noted that this survey was conducted outside of the nesting bird season and, as such, does not represent a breeding bird survey per se, but rather provides an indication of the types of species that utilise the Site. Due to the low ecological value of the Site and the general absence of vegetation therein, it is deemed that sufficient data was collected to make an informed assessment of the likely impacts to birds that may be caused by the Proposed Development.

#### **5.2.3.6 Other Fauna**

During the course of all surveys at the Site of the Proposed Development, other species of fauna were noted if observed, and these are included in the report where applicable.

### **5.2.4 Assessment**

The value of the ecological resources, i.e., the habitats and species present or potentially present, was determined using the ecological evaluation guidance given in the National Roads Authority's Ecological Assessment Guidelines (NRA, 2009). This evaluation scheme, with values ranging from locally important to internationally important, seeks to provide value ratings for habitats and species present that are considered ecological receptors of impacts



that may ensue from a proposal. Any habitats or species evaluated as being of Local Importance (higher value) or greater and considered to be at risk of significant effects as a result of the Proposed Development are selected as potential key ecological receptors (KERs) and thus considered further for assessment.

The assessment of the potential effect or impact of the Proposed Development on the identified key ecological receptors was carried out with regard to the criteria outlined in the draft EPA Guidelines (EPA, 2017). These guidelines set out a number of parameters such as quality, magnitude, extent and duration that should be considered when determining which elements of the Proposed Development could constitute impact or sources of impacts.

### 5.3 The Existing and Receiving Environment (Baseline Situation)

The Site of the Proposed Development comprises Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the existing surface car park (known as the Library Car Park) to the south east of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the south east of the Blanchardstown Centre and a section of Road C and Road D, including the associated roundabout junction, verges and footpaths.

The Site is surrounded by commercial uses, with residential lands ca. 160m to the south and amenity lands immediately to the west (Sports and Leisure Club), while the N3 Blanchardstown Bypass is located ca. 336m to the north-east of the Site.

#### 5.3.1 Geology & Hydrogeology

The Site is underlain by the *Lucan Formation* bedrock formation, comprising of dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey from the lower Carboniferous period (GSI, 2022). The groundwater rock units underlying the area are classified as *Dinantian Upper Impure Limestones* (GSI, 2022). The quaternary sediments are described by the GSI as *Till derived from limestones (TLs)*, and the sub-soil at the Site of the Proposed Development is classified as *Made* (EPA, 2022). Blanchardstown Centre and the surrounding area are located within the *Dublin* groundwater body, which has an overall Water Framework (WFD) status of *Good* according to the EPA. The Site of the Proposed Development is located on a locally important aquifer (LI) (i.e. bedrock which is moderately productive only in Local Zones), with groundwater vulnerability in the area listed as High (H) (GSI, 2022).

#### 5.3.1 Hydrology

The Site of the Proposed Development is located within the Liffey and Dublin Bay river catchment, the Tolka\_SC\_020 sub catchment and the TOLKA\_040 sub basin (EPA, 2022).

The nearest watercourse to the Site is the River Tolka (EPA Code: 09T01) located ca.270m to the north-east of the Proposed Development. This watercourse flows through the greater Dublin area in a south-easterly direction before outflowing into the Tolka estuary ca. 9.6km to the south-east of the Site of the Proposed Development. The BARBERSTOWN 09 (EPA Code: 09B88) ca. 1.3km to the north-west of the Site, flows north-east joining the Tolka. The Royal Canal waterbody is also located ca.1.25km to the south-east of the Site.

The River Tolka is cited as 'At Risk' under the Water Framework Directive (EPA, 2022). The nearest EPA monitoring point located upstream of the Proposed Development is at Mulhuddart



Bridge (station code: RS09T010800) ca.1.4km from the Site, which reported a Q-value of 2-3, *Poor* in 2019. The nearest downstream station is the *TOLKA - Old Corduff Rd Br u/s Blanchardstown* (station code: RS09T010900, located ca. 530m from the Site. This station reported a Q-value of 3, *Poor* in 1994. Further downstream along the Tolka River, more recent testing also recorded a Q-value of 3, *Poor* in 2019 (Abbotstown Bridge, station code: RS09T011000) ca.2km south-east of the Site (EPA, 2022).

### 5.3.2 Designated Sites

The methodology used to identify relevant designated sites comprised the following:

- Use of up-to-date GIS spatial datasets for European and nationally designated sites and water catchments – downloaded from the NPWS website ([www.npws.ie](http://www.npws.ie)) and the EPA website ([www.epa.ie](http://www.epa.ie)) to identify designated sites which could potentially be affected by the Proposed Development;
- The catchment data was used to establish or discount potential hydrological connectivity between the Project Boundary and any designated sites.
- All designated sites within an initial precautionary zone of influence (European Sites within 15km of the Proposed Development Site, and nationally designated sites within 5km) were identified and are presented in Figure 5-1 & Figure 5-2 below.
- The potential for connectivity with designated sites at distances outside of these precautionary zones was also considered in this initial assessment. In this case, there is no potential connectivity between the Proposed Development Site and designated sites located beyond these distances.
- The potential for pathways between designated sites and the Proposed Development Site was assessed on a case-by-case basis using the Source-Pathway-Receptor framework. Those designated sites where a pathway was identified are highlighted in green. Pathways considered included:
  - Direct pathways e.g., proximity, water bodies, air (for both air and noise emissions).
  - Indirect pathways e.g., disruption to migratory paths, 'Sightlines' where noisy or intrusive activities may result in disturbance to shy species, increased human activity etc.
- The site synopses of these sites, as per the NPWS website ([www.npws.ie](http://www.npws.ie)), were consulted and reviewed at the time of preparing this report.
- The distances to each site listed are taken from the nearest possible point of the Proposed Development Site boundary to nearest possible point of each European site or pNHA

#### 5.3.2.1 European Sites

The EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive 1992) provides protection to particular species and habitats throughout Europe. The Habitats Directive has been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011. The Directive requires the designation of Special Areas

of Conservation (SACs) for areas of habitat deemed to be of European interest, and the designation of Special Protection Areas (SPAs) for: listed and rare species, regularly occurring migratory species, and for wetlands which attract large numbers of birds. The SACs together with the SPAs form a network of protected sites called Natura 2000.

No European Sites are located within, or directly adjacent to, the Site of the Proposed Development. There are 5 SACs and 3 SPAs identified within a 15km radius of the Site. The nearest European Site to the Proposed Development is the Rye Water Valley/ Carton SAC located ca.7km to the west. As detailed in the Appropriate Assessment Screening Report for this Proposed Development, submitted with this application under separate cover, the Proposed Development maintains no significant impact pathway with this SAC or any other European Site and likely significant impacts are therefore not envisaged.

### **5.3.2.2 Nationally Designated Sites**

Natural Heritage Areas (NHAs) are areas considered important at a national level for the habitats present, or which hold species of plants and animals whose habitat needs protection. Proposed NHAs (pNHAs) are areas which were published on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. These sites are deemed to be of significance for wildlife and habitats. Some pNHAs occupy a relatively small area, such as a roosting place for rare bats, while others are relatively large e.g., a woodland or a lake. Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation.

No NHAs are located within, or directly adjacent to, the Site of the Proposed Development. The nearest pNHA to the Proposed Development is the Royal Canal pNHA located ca.1.25km to the south. The Proposed Development maintains no potential impact pathway with this pNHA, hydrological or otherwise.

The Proposed Development maintains an indirect hydrological connection with the North Dublin Bay pNHA via the receiving surface water drainage network in the Blanchardstown Centre; which outfalls to the Tolka river. However, and as detailed in the Appropriate Assessment Screening that accompanies this application under separate cover, there is no likelihood of significant effects on designated sites located within Dublin Bay; due to the intervening distance involved and the capacity for dilution within the drainage network, the Tolka River, and Dublin Bay itself.

No pNHAs are deemed to maintain impact pathways linking them to the Proposed Development. Table 5-1 below summarises the screening out of such Sites.

Table 5-1: *Proposed Natural Heritage Areas located within the precautionary 5km ZOI of the Proposed Development. Sites with identified Source-Pathway-Receptor impact linkage are highlighted in green.*

Site Name & Code (Receptor)	Distance to Proposed Development	Potential Pathway to receptors
<b>Proposed Natural Heritage Area</b>		
Royal Canal pNHA (002103)	1.25km south	No hydrological connection or other impact pathway exists.
Liffey Valley (000128)	2.5km south-west	No hydrological connection or other impact pathway exists.



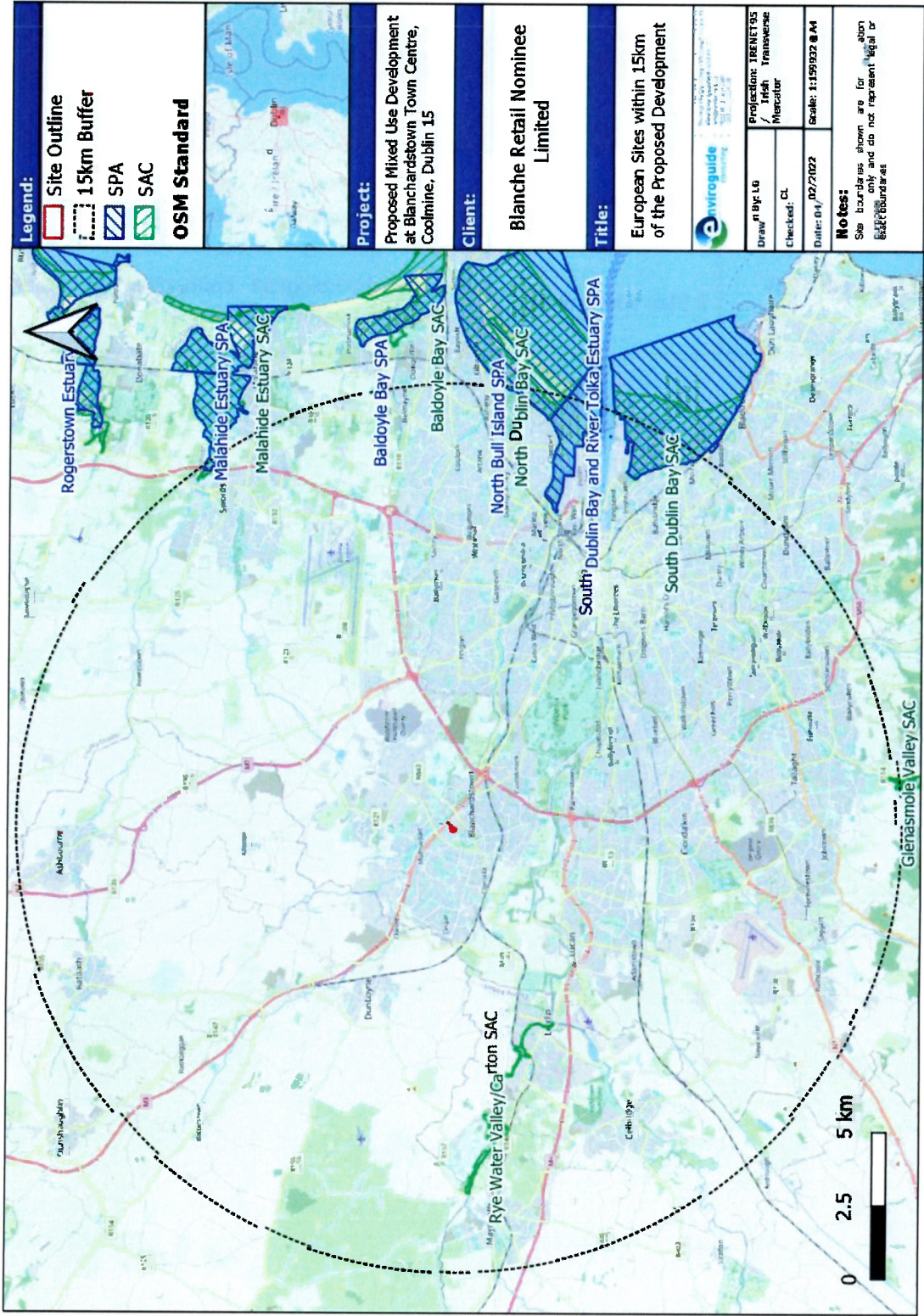


Figure 5-1: European Sites within 15km of the Proposed Development



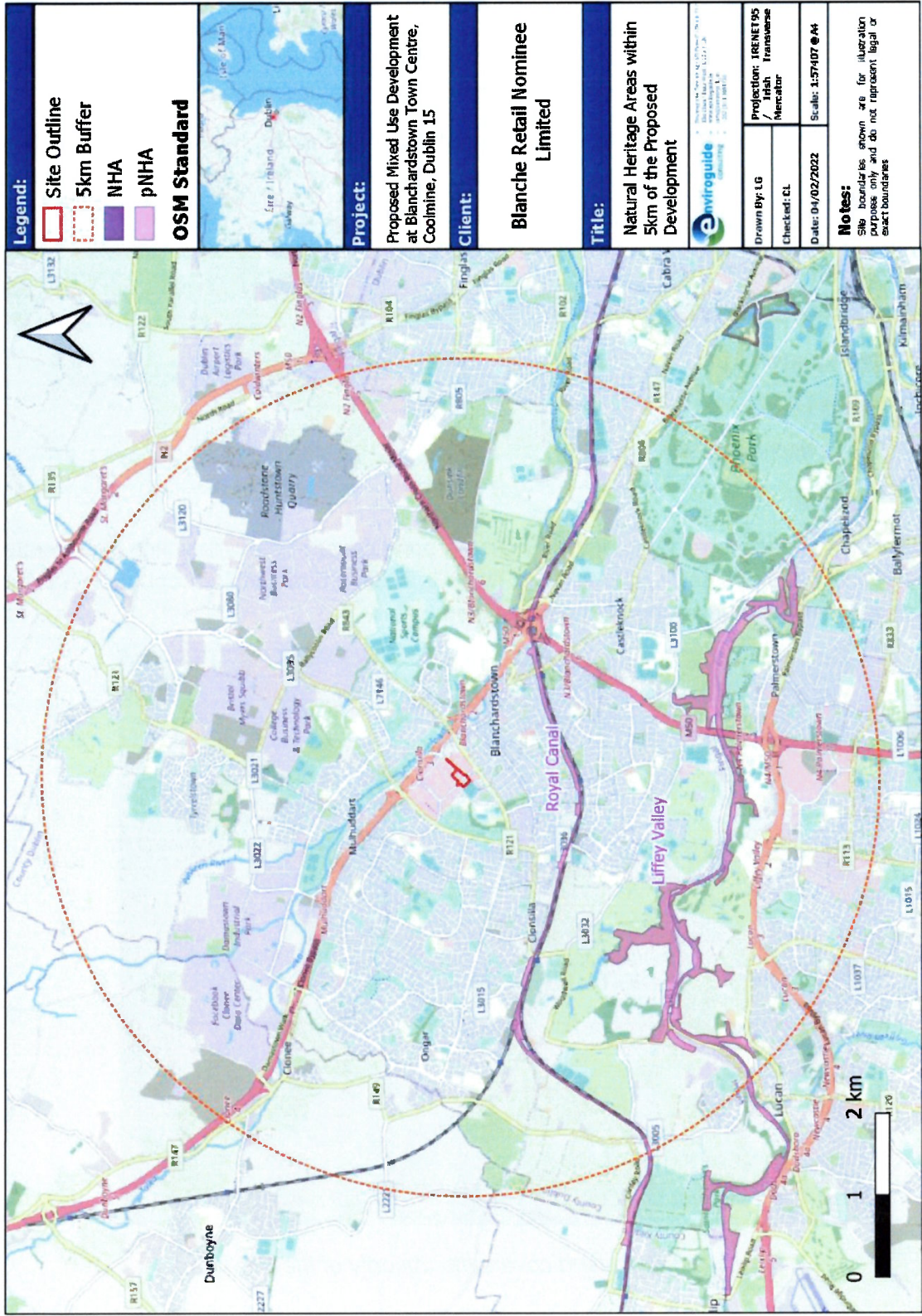


Figure 5-2: Natural Heritage Areas within 5km of the Proposed Development



### 5.3.3 Habitats

The habitats within the Site of the Proposed Development are coded and categorised to level 3 according to Fossitt (2000).

The Site of the Proposed Development is made up of two areas of carparking and sections of roadway. Habitats are limited to these hardstanding areas and their associated ornamental planting, although the western treeline provides some more natural vegetation.

The following habitats were identified within the redline boundary of the Site or within close proximity:

- Built land (BL3)
- Amenity grassland (GA2)
- Ornamental scrub (WS3)
- Hedgerows (WL1)
- Treelines (WL2)
- Drainage ditches (FW4)

#### **Built Land habitat**

This habitat comprises the majority of the existing ground cover at the Site which is currently in use as open air and multistorey car parking. This highly disturbed and anthropogenic habitat is of no ecological value and supports no vegetation.



*Figure 5-3: Built land covers the majority of the Site.*

### **Amenity Grassland and Ornamental Scrub**

Highly maintained roadside verges and small areas of ornamental planting beneath planted street trees. These habitats are of little to no ecological value and comprise of ornamental species such as Cherry Laurel *Prunus laurocerasus* and the occasional immature Birch tree *Betula sp.*



Figure 5-4: Example of ornamental scrub habitat at the Site.

### **Hedgerows, Treelines and Ditches**

The western and southern boundary of the Site currently support Hedgerow/treelines of varying quality. The western site boundary, that separates the car park from the Major Town Centre zoned lands to the south, comprises a metal fence and semi-natural hedgerow/treeline, with species such as Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Hawthorn *Crataegus monogyna*, Dog rose *Rosa canina*, Bramble *Rubus fruticosus* and Ivy *Hedera sp.* present. This vegetation is largely being retained in the landscape plan and provides some ecological value to the Site i.e., foraging/nesting habitat for birds and small mammal. A dry drainage ditch also runs along the far side of this boundary, as part of the Major Town Centre zoned lands.

The southern corner boundary treeline, separating the Site from AIB, comprises largely of non-native, ornamental species and was likely planted within the last few decades. A previous townland boundary was once present in the adjoining AIB site and appears to have been removed in the late 1990's early 2000's from a review of aerial photography. This is further supported by an Enviroguide survey of the existing vegetation on the 2<sup>nd</sup> of September 2021 which indicates planting is of ornamental species and approximately 20-25 years old. Species recorded here include Horse chestnut *Aesculus hippocastanum*, Ash, Bramble and Whitebeam *Sorbus hibernica*. It is planned to remove this treeline to allow for an access road to the Fingal County Council lands to the west.

The rest of the trees at the Site are planted ornamental trees at regular intervals, with maintained grass verges as understorey. Species mainly comprise of Lime *Tilia cordata* and Whitebeam. Due to their very formal planting as roadside trees, they provide limited habitat



opportunities for fauna at the Site, providing some habitat connectivity for local birds. These trees will be removed to facilitate the Proposed Development and will be replaced by similar species post construction.



*Figure 5-5: The southern boundary treeline, by AIB.*





*Figure 5-6: The more natural western boundary with the Major Town Centre zoned lands to the south.*



*Figure 5-7: The dry drainage ditch running along the Major Town Centre zoned land, side of the western treeline (Image taken facing north-west).*



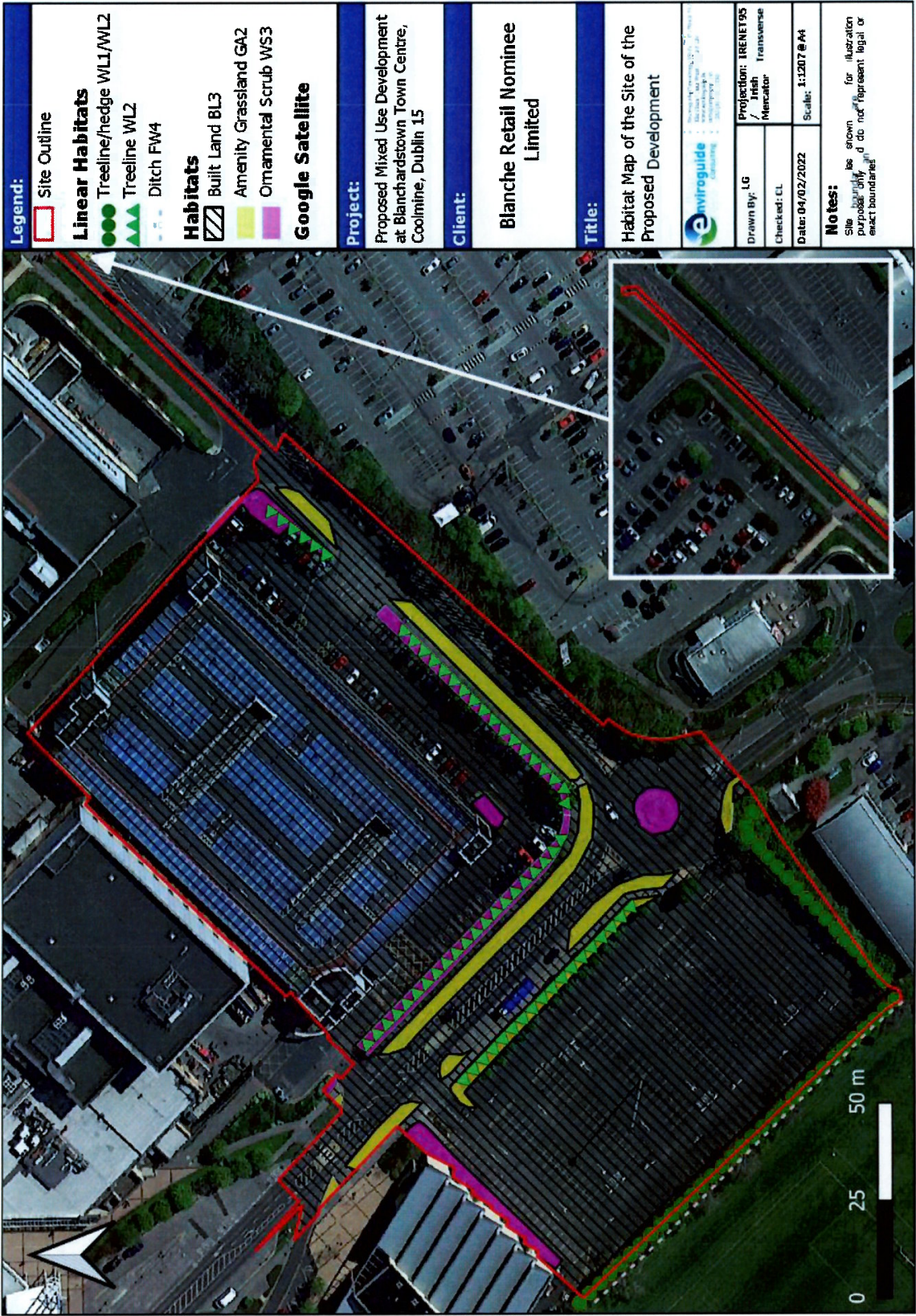


Figure 5-8: Habitat Map of the Site of the Proposed Development



### 5.3.4 Flora & Fauna

The Site of the Proposed Development is located within the Ordnance Survey National Grid 2km grid square O03U. Species records from the National Biodiversity Data Centre (NBDC) online database for this grid square was studied for the presence of rare/protected/invasive flora and fauna species.

#### 5.3.4.1 Rare & Protected Flora

No records of rare flora, e.g., those classified as 'critically endangered', 'endangered', or 'vulnerable' on the *Ireland Red List No. 10: Vascular Plants* (Wyse-Jackson *et al.*, 2016) or the *Ireland Red List No. 8: Bryophytes* (Lockhart *et al.*, 2012), were identified during surveys of the Site of the Proposed Development. The Site does not contain any species listed on the Flora (Protection) Order 2015.

#### 5.3.4.2 Invasive Plant Species

There are records for 2 species of flora considered to be invasive within the 2km grid square within which the Site of the Proposed Development is located:

- Giant Hogweed *Heracleum mantegazzianum*
- Winter Heliotrope *Petasites pyrenaicus*

High impact Cherry Laurel *Prunus laurocerasus* was recorded as ornamental planting in the north-west of the Site, adjacent to the library. Another widespread medium impact non-native invasive species: Sycamore *Acer pseudoplatanus* was also recorded at the Site.

#### 5.3.4.3 Mammals

Records for terrestrial mammals recorded in the surrounding 2km grid squares were retrieved from the NBDC online database. The following protected species were included in these results:

- West European Hedgehog *Erinaceus europaeus*
- Lesser Noctule *Nyctalus leisleri*
- Pipistrelle *Pipistrellus sensu lato*
- Soprano Pipistrelle *Pipistrellus pygmaeus*

Additional commonly occurring protected mammal species were also considered in the context of the Site of the Proposed Development and its environs.

There was no evidence of mammal usage of the Site recorded during the survey. The highly urbanised and built-up nature of the Site and its surrounds makes it sub-optimal for most mammal species, with limited vegetation, and thus habitat connectivity, present in its current condition.

No streams or watercourses are present within close proximity to the Site and, therefore, no suitable Otter *Lutra lutra* habitat is present. The River Tolka to the north-east supports Otter, however, they would not visit the Site in its current condition.

Red Fox *Vulpes* is a species known to inhabit rural and urbanised environments and may frequent the Site on occasion. This species is not, however, of current conservation concern and is therefore not considered further in this assessment.

#### 5.3.4.4 Birds

Very limited bird activity was recorded at the Site, as would be expected based on the low value and paucity of habitats present. All species recorded were either flying over-head or associated with the western and southern treelines at the Site. All species were commonly occurring in urban environments and the Site is not thought to be of significant importance to local bird species.

Due to the low ecological value of the Site and the general absence of vegetation therein, it is deemed that sufficient data was collected to make an informed assessment of the likely impacts to birds that may be caused by the Proposed Development.

Table 5-2: Bird species recorded within the vicinity of the Site during the bird survey on 2<sup>nd</sup> September 2021

Species	BOCCI <sup>3</sup> Category	Comment
Woodpigeon ( <i>Columba palumbus</i> )	Green	Flying overhead
Blue Tit ( <i>Cyanistes caeruleus</i> )	Green	Calling along southern treeline
Black-headed Gull ( <i>Chroicocephalus ridibundus</i> )	Amber	Flying overhead
Herring Gull ( <i>Larus argentatus</i> )	Amber	Flying overhead
Jackdaw ( <i>Corvus monedula</i> )	Green	Flying overhead
Magpie ( <i>Pica pica</i> )	Green	Common, in ash tree.
Rook ( <i>Corvus frugilegus</i> )	Green	Flying overhead

#### 5.3.4.5 Other species

The Site provides no habitat for amphibians such as Common Frog *Rana temporaria* or Smooth Newt *Lissotriton vulgaris*. The only drainage ditch in the vicinity of the Site was dry and highly overgrown during the Site survey, with no aquatic plant species evident that might suggest extended periods of wetter conditions.

No streams or other watercourses lie within close proximity to the Site and therefore no habitat for fish species exists nearby. The River Tolka to the north-east supports a variety of fish species, with Inland Fisheries Ireland sampling in 2017; at Mill Road ca. 1km to the south-east of the Site, recording Brown trout *Salmo trutta*, Minnow *Phoxinus phoxinus* and Stone loach *Barbatula barbatula*; with Salmon *Salmo salar*, Lamprey *Lampetra* sp., European Eel *Anguilla anguilla* and Three-spined stickleback *Gasterosteus aculeatus* recorded further downstream in Drumcondra (Matson et al., 2018).

<sup>3</sup> As per Birds of Conservation Concern in Ireland 220-2026 (Gilbert, Stanbury & Lewis, 2021).

### 5.3.5 Summary of Ecological Evaluation

The habitats present, and species likely to utilise the Site, have been evaluated below in Table 5-3 for their conservation importance based on the NRA evaluation scheme (NRA, 2009b). Those selected as key ecological receptors (KERs) are those which are evaluated to be of at least local importance (higher value) and deemed to be at risk of significant effects resulting from the Proposed Development. The impacts of the Proposed Development on these receptors are assessed below in Section 5.5. The summary in the table below indicates the evaluation rating assigned to each receptor and the rationale behind these evaluations.

*Table 5-3: Evaluation of potential ecological sensitivities within the vicinity of Site of the Proposed Development*

Ecological Receptor	Evaluation	Rationale	Key Ecological Receptor (KER)?
<b>Designated Sites</b>			
<b>European Sites</b>	International Importance	Likely significant impacts to European Sites were Screened out in the AA Screening Report which accompanies this application under separate cover.  Please refer to the AA Screening Report for further details.	<b>No</b>
<b>North Dublin pNHA</b>	National Importance	Likely significant impacts to the Dublin Bay European Sites were Screened out in the AA Screening Report which accompanies this application under separate cover. By Proxy, this assessment also applies to North Dublin pNHA.  Please refer to the AA Screening Report for further details.	<b>No</b>
<b>Habitats</b>			
<b>Built land (BL3)</b> <b>Amenity grassland (GA2)</b> <b>Ornamental scrub (WS3)</b> <b>Drainage ditches (FW4)</b>	Negligible importance	Anthropogenic/disturbed habitats with little/no value.  Dry, overgrown drainage ditch.	<b>No</b>

Ecological Receptor	Evaluation	Rationale	Key Ecological Receptor (KER)?
<b>Hedgerows (WL1)</b> <b>Treelines (WL2)</b>	Local Importance (Higher Value)	Limited occurrences at the Site. Provide limited shelter/nesting/foraging habitat for small mammals, bats, and birds, in a highly anthropogenic environment.	<b>Yes</b>
<b>Flora and Fauna</b>			
<b>Mammals</b>	Local Importance (Lower Value)	Little to no suitable habitat for mammals present at the Site.	No
<b>Bat assemblage</b>	Local Importance (Higher Value)	Site provides little opportunities for bats due to urban, built-up nature and limited roosting/ foraging potential.	No
<b>Bird assemblage (Green and Amber listed species)</b>	Local Importance (Higher Value)	Relatively common species recorded at the Site. Site provides nesting/foraging habitat along treelines and hedgerows.	<b>Yes</b>
<b>Fish</b>	Local Importance (Higher Value)	The Site is largely hardstanding and contains no suitable aquatic habitats for this species group.  The Proposed Development will utilise the existing surface water infrastructure present within the Blanchardstown Centre, with no new outfall to any watercourse proposed.  However, Construction Phase surface waters, containing pollutants and contaminants e.g., cementitious materials, could enter the Tolka if allowed to enter the existing surface water drains at the Site.	<b>Yes</b>
<b>Amphibians</b>	Negligible importance	The Site is largely hardstanding and contains no suitable aquatic habitats for this species group.	No



## 5.4 Characteristics of the Proposed Development

Blanche Retail Nominee Limited intend to apply for a Proposed Mixed Use Development at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

The application site relates to the existing surface car park (known as the Library Car Park) to the south east of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the south east of the Blanchardstown Centre and a section of Road C and Road D, including the associated roundabout junction, verges and footpaths.

In summary, the proposed mixed use development consists of 6 no. apartment buildings (A, B, C, D, J and K), with ground floor commercial uses, ranging from 5 to 13 no. storeys in height and extension, including associated alterations, of the existing multi storey car park (the Blue Car Park) from 4 no. levels to 6 no. levels.

Apartment Blocks J and K are proposed on the Library Car Park site (Site B) and Apartment Blocks A, B, C and D are located on the Blue Car Park site (Site C). The development includes a total of 352 no. apartments (comprising 43 no. studios, 134 no. 1 bed apartments, 154 no. 2 bed apartments, and 21 no. 3 bed apartments), resident amenity space and 6 no. retail / commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11 Gym or Restaurant / Café use, including ancillary takeaway use).

The construction of 2 no. additional levels on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the apartments within Blocks A, B, C and D. Car parking is also provided in an under-croft floor level within Blocks J and K to serve the residential units within those blocks.

The Proposed Development includes public and communal open space, landscaping and public realm improvements, vehicular accesses and new road infrastructure adjacent to Block J and K up to the site boundary, cycle parking, 2 no. ESB substations and switch-rooms, bin stores and plant rooms. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting.

### 5.4.1 Construction Phase

A Construction Environmental Management Plan (CEMP) has been prepared by DBFL Consulting Engineers (DBFL, 2022a) which sets out the key features of the exiting site (receiving environment) and describes the construction industry best practice standards that the development will be constructed in accordance with. The Contractor appointed to undertake the works will be required to develop this framework document as part of their overall revised Construction Environmental Management Plan in agreement with Fingal County Council (FCC) prior to commencement of works. The Construction Phase is expected to be spread intermittently over a period of 24-30 months.

### 5.4.2 Operational Phase

The Operational Phase will comprise commercial and residential use and retail activities consistent with the neighbouring land use in the area.

#### **5.4.2.1 Foul Water**

The Site of the Proposed Development is located within the *F003 - Grand Canal Trunk Sewer Catchment* according to the Greater Dublin Strategic Drainage Study (GDSDS, 2005), with foul waters in the vicinity of the Site draining to the 9C Trunk Sewer prior to treatment at Ringsend Wastewater Treatment Plant, and eventual outflow into Dublin Bay once treated.

According to the Infrastructure Design Report (IDR) prepared by DBFL (DBFL, 2022b), the existing 225mm diameter private foul drainage network in the immediate vicinity of the site is at capacity, and as such, upgrades to the private foul drainage network are required in order to facilitate the Proposed Development. It is therefore proposed to construct a new foul drainage network to serve the Proposed Development (Site B and Site C) as well as facilitating potential future development in the vicinity of Blanchardstown Town Centre. The new foul sewer network will discharge to the existing private 450mm diameter foul sewer located to the north-east of the Site (which in turn outfalls to Irish Water's 9C trunk sewer).

An initial Pre-Connection Enquiry was submitted to Irish Water for the Proposed Development and a confirmation of feasibility letter was received in October 2021. Irish Water has advised that provision of a foul drainage connection is "feasible subject to upgrades". These upgrades relate to the completion of the "9C Duplication Project". Irish Water has advised that this project is currently at the construction stage and is scheduled for completion in Q3 2022.

#### **5.4.2.2 Surface Water**

The Site of the Proposed Development is located within the *S2007 - Tolka Blanchardstown Storm Level 2 Catchment* according to the Greater Dublin Strategic Drainage Study (GDSDS, 2005). The majority of the storm sewers serving the area form dendritic storm water networks which discharge to the River Tolka by gravity.

Existing private surface water drainage infrastructure (525mm diameter) is located to the north-east of Site B and to the south-west and south-east of Site C i.e., along a grass verge adjacent to the existing access road within Blanchardstown Town Centre. This surface water drain outfalls to the north-east along access roads within Blanchardstown Town Centre.

Surface water discharge rates from the proposed surface water drainage network will be controlled by flow control devices on individual attenuation systems (underground storage, blue/ green roofs). Surface water discharge will also pass via a full retention fuel / oil separator (sized in accordance with permitted discharge rate from the site).

#### **SUDS Measures**

According to the IDR report prepared by DBFL (2022b), the first part of the SUDS treatment train for managing surface water on site allows for the majority of roof and podium areas to be drained via green/ blue roof systems. Surface water runoff from apartment roofs will be captured by a green roof system (sedum blanket or equivalent) prior to being routed to the piped surface water drainage network. Surface water runoff from podium areas will be captured by a blue roof system (drainage reservoir / drainage board) prior to being routed to the piped surface water drainage network.

Where feasible surface water runoff from the site's internal street/ footpath network will be directed to the proposed pipe network via a combination of permeable surfaces and tree pits (with overflows to conventional road gullies) or other SUDS features such as bio-retention

areas / rain gardens. Surface water runoff from parking spaces (East of Site B) will be captured by permeable paving. Any incidental surface water runoff generated from the under-croft carpark at Site B will drain through a separate system beneath the ground slab (out-falling to the proposed foul drainage network via a petrol interceptor).

'Stormtech' attenuation systems are incorporated within the surface water drainage strategy and provide an additional treatment and attenuation feature, which allows surface water infiltration to ground.

## 5.5 Potential Impact of the Proposed Development

This section provides a description of the potential impacts that the Proposed Development may have on ecological receptors in the absence of mitigation. Methodology for determining the significance of an impact has been published by the NRA (NRA, 2009).

### 5.5.1 Impacts on Designated Sites

The Appropriate Assessment Screening Report prepared by Enviroguide Consulting, containing information for the purposes of Stage 1 Screening for AA, is presented in a separate document with this application. Based on the assessment detailed in the above report, it has been ascertained that there is no likelihood of significant effects on European Sites as a result of the Proposed Development.

No NHAs are located within, or directly adjacent to, the Site of the Proposed Development. The nearest pNHA to the Proposed Development is the Royal Canal pNHA located ca.1.2km to the south-east. The Proposed Development maintains no potential impact pathway with this pNHA, hydrological or otherwise.

The Proposed Development maintains an indirect hydrological connection with the North Dublin Bay pNHA via the receiving surface water drainage network in the Blanchardstown Centre; which outfalls to the Tolka river. North Dublin Bay pNHA includes the River Tolka estuary and is located ca.11km to the east of the Site of the Proposed Development and ca.13km downstream. However, and as detailed in the Appropriate Assessment Screening that accompanies this application under separate cover, there is no likelihood of significant effects on designated sites located within Dublin Bay; due to the intervening distance involved and the capacity for dilution within the receiving drainage network, the Tolka River, and Dublin Bay itself.

This pNHA has no specific site synopsis and is likely designated for the protected habitats and species that the North Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA are designated for. These European Sites are covered in the AA screening that has been prepared as part of this application, and as such the findings of this screening can be applied to the North Dublin Bay pNHA also. This pNHA is therefore not considered further as a standalone entity in this report as it has been addressed by proxy in the above mentioned report.

### 5.5.2 Impacts on Habitats & Flora

The Proposed Development will result in the loss and replacement of the low value habitat type currently making up the majority of the Site of the Proposed Development i.e., *Buildings and artificial surfaces (BL3)*, along with the loss of some vegetated habitats in the form of street trees, ornamental planting and hedgerow. Vegetation removal will result in **negative**,

**short-term, moderate**, impacts at a local scale, with this being the only vegetation present at the Site. This will be offset by the proposed tree, hedge and shrub planting to be carried out at the Site.

### 5.5.3 Impacts on Mammals

No mammals of conservation concern were recorded within the Site of the Proposed Development, and it is deemed highly unlikely that any species would frequent the Site as it currently is. The artificial built-land habitat currently present at the Site is of no value to any mammals of conservation concern.

### 5.5.4 Impacts on Birds

Usage of the Site of the Proposed Development by birds was low due to the built land component of the Site. All bird activity was associated with the vegetation that runs along the Site's boundary hedgerows/ treelines.

#### 5.5.4.1 Injury/mortality during Site Clearance

Should vegetation clearance occur during the nesting season there is the potential for the destruction of nests and eggs, as well as the mortality of young birds prior to fledging. This would represent a **negative, short-term, significant** impact at a **local** scale.

#### 5.5.4.2 Noise Disturbance

Although local birds are likely adapted to a certain degree of urban ambient noise, due to the urban nature of the Site's setting, the Construction Phase of the Proposed Development will likely involve elevated noise levels associated with the proposed demolition and excavation works. As a result, there is a potential risk of noise disturbance to birds in the vicinity of the Site, representing a **negative, short-term, significant** impact at a **local** scale in the absence of suitable mitigation.

#### 5.5.4.3 Collision with Site Structures

Tall structures such as electrical pylons, wind farms and tall buildings can lead to fatal collisions with commuting bird species. This is particularly true for those species considered to be "poor" fliers, with relatively low manoeuvrability compared to other more agile bird species (see Eirgrid, 2012).

Some of the most at-risk groups (classified as 'medium' and 'high' collision risk species) include wader species; waterfowl such as geese, swan and duck species; and some raptor species. Gulls such as Black-headed Gull, Herring Gull and Lesser Black-backed Gull are classed as 'low' collision risk species due to their superior manoeuvrability when flying (Eirgrid, 2012).

##### 5.5.4.3.1 Likelihood of Collision Impacts

The physical location of buildings and structures can influence the likelihood of bird collisions, with structures placed on or near areas regularly used by large numbers of feeding, breeding, or roosting birds, or on local flight path; such as those located between important foraging and roosting areas, can present a higher risk of collision.

The Site itself is not deemed to be located in a sensitive area in terms of bird flight paths i.e., it is not located along the coast, or adjacent to any Special Protected Areas (SPAs) designated



for wetland bird populations. The Site in itself is not deemed to represent suitable ex-situ feeding/roosting habitat for any such species (Habitats present largely comprise of built land and ornamental planting).

### **Building Height**

The Proposed Development entails building heights ranging from 5 to 13 no. storeys (ca.44m in height) and as such, the risk of migrating birds colliding with the structure due to its height is deemed to be negligible [Migrating species tend to commute far above this with Swans and Geese flying up to 2500ft (ca.750m) during migration along Irish Coasts (Irish Aviation Authority, 2020). Birds that fly over the Site to commute would fly lower than this, however, even at these lower flight heights, once structures are made of visible materials i.e., not entirely comprised of reflective materials such as glass, the birds will simply fly around or over them.

It is worth noting that the context of the Proposed Development, within the existing Blanchardstown Town Centre, which includes a number of other tall buildings, as noted in *Chapter 10 Landscape and Visual Assessment* of this EIAR. The height of the Crowne Plaza Building, the node/landmark at the northwest of the Site is 10-15 stories, while the Liberty Insurance building at the north of the Site is 15+ stories. The height of the node proposed at the Site B building is 13 stories in height.

### **Building Appearance**

The overall façades of the proposed buildings are well broken up, with a varied material composition which breaks up any reflective areas. These architectural design features provide important visible cues as to the presence and extent of the proposed structures to any commuting/foraging bird species should they be in the vicinity of the Site. This overall visual heterogeneity of the building façades will be sufficient to further ensure that the risk of bird collisions as a result of the Proposed Development is negligible. These architectural design features are part of the overall design of the Proposed Development and are not considered to represent specific mitigation measures to prevent collisions, however, they will contribute to the overall effect in this regard.



Figure 5-9: Example of the proposed building façades and heights, with opaque materials comprising coloured brick, panelling and metalwork throughout (Adapted from OMP drawing 20053-OMP-SB-XX-DR-A-2000 - Site B - North and East Elevations).

As such, based on the heights of the proposed structures and the physical appearance of these structures, it is deemed that local birds do not have the potential to be impacted by the Proposed Development; through collisions or obstructions to flight-lines over the Site, and the collision risk is therefore deemed to be **negligible** in the absence of any mitigation.

### 5.5.5 Impacts on Fish

Construction Phase surface waters, containing pollutants and contaminants e.g., cementitious materials, could enter the Tolka if allowed to enter the existing surface water drains at the Site.

The existing surface water infrastructure within the Blanchardstown Centre may have measures incorporated into their design to remove pollutants from surface water run-off, however, without information on these measures it is deemed prudent to assume that this is not the case and to recommend appropriate mitigation (See section 5.8).

In the absence of mitigation, impacts to fish species within the Tolka could amount to **negative, short-term, significant** at the scale of the stretch of the Tolka near the existing surface water outfall and downstream.

## 5.6 Potential Cumulative Impacts

Cumulative Impacts can be defined as “*impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project*”. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

### Existing Planning Permissions

Table 5-4 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

*Table 5-4 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	<b>Green Mall (Also known as the Central Mall) &amp; Yellow Mall</b>	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>“The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2. The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use.”</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>

FW18A/0168	Blue Mall	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	<p>The Proposed Development in combination with this Proposed Development will not lead to a reduction of habitats and green spaces in the area.</p> <p>No significant cumulative habitat loss will occur involving the Proposed Development.</p>
FW20A/0030 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>
FW20A/0018 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>



FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m).</p> <p>The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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<b>FW19A/0017</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>dac/145/19</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Cent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
<b>19/4224</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>“The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments.”</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>“intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works.”</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>



FW18A/0116	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	
18/4234	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	
FW18A/0011	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<p><b>F07A/1416/E1</b></p>	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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<p><b>FW17A/0083</b></p> <p><b>An Bórd Pleanála Ref: PL06F.248959</b></p>	<p><b>For development in the Tolka River Valley Park in the townlands of Parslickstown, Buzzardstown, Coolmine</b></p>	<p>For development in the Tolka River Valley Park in the townlands of Parslickstown, Buzzardstown, Coolmine, Corduff and Deanstown in Mulhuddart and Blanchardstown, Dublin 15. The development will consist of: a new sewer duplication of the existing 9C sewer for a distance of ca. 3.2 km with associated permanent manhole covers along its length; three cross-connections between the existing 9C Sewer and the proposed 9C sewer duplication (adjoining Parlickstown Road, Church Road and between Snugborough Road and Mill Road); underground storage tanks with a combined storage capacity of ca. 30,000m<sup>3</sup>, with associated manhole covers at ground level; a single storey control building (ca. 240 sq m) over an underground waste water pumping station (ca. 271 sq m) located in a ca. 1,030 sq m compound with surrounding boundary fence; the storage tanks, control building and pumping station will be located in the park near Mill Road; 5 no. vehicular accesses associated with construction - 4 no. temporary vehicular accesses (off Parlickstown Road, Church Road, Old Navan Road and Blanchardstown Road North) and one permanent vehicular access off Waterville Distributor Road; 11 no. vent stacks ca. 7.6m high (one each adjoining Parlickstown Road, Church Road, Blanchardstown Road North, Snugsborough Road and the proposed pumping station (this vent stack is 5.2 m high), and 6 no. over the underground tanks); 3 no. electrical kiosks (adjoining Parlickstown Road, Church Road and at the pumping station site; Diversion of the existing 9C Sewer and an existing watermain to facilitate construction of the storage tanks; Diversion of 2 underground ESB lines and an overhead ESB line to facilitate the pumping station; 1 no emergency stormwater overflow to the River Tolka near Mill Road. The sewer will be substantially constructed by a bored tunnel. The following temporary works associated with the construction are proposed: 13 no. working areas (5 no. between Parlickstown Road and Church Road, 2 no. between Church Road and Blanchardstown Road North, 4 no. between Blanchardstown Road North and Snugborough Road and 2 no. between Snugborough Road and Mill Road); 7 no. haul roads (3 no. between Parlickstown Road and Church Road, 1 no. off the Old Navan Road, 2 no. between Blanchardstown Road North and Snugborough Road and 1 no. between Snugborough Road and Mill Road); 2 no. temporary culverts of the River Tolka adjoining Parlickstown Road and north east of the public car on the Old Navan Road; 1 no. temporary culvert of the River Pinkeen adjoining Church</p>	<p>The Proposed Development is located at a distance from the River Tolka and no construction related impacts involving the river are expected once the mitigation measures in this report are adopted. As such, no significant effects to the River Tolka and the species therein are envisaged involving the Proposed Development.</p> <p>No significant Operational Phase pollution effects are envisaged resulting from the Proposed Development itself, and as such, no potential for significant cumulative pollution effects involving the Proposed Development are deemed likely to occur.</p>
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		Road; 1 no. temporary bridge and 1 no. temporary extension of an existing culvert, both north east of the public car on the Old Navan Road. An Environmental Impact State (EIS) will be submitted to the Planning Authority with the planning application.	
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### 5.6.1 Relevant Plans & Policies

In addition, the following Policies and Plans were reviewed and considered for possible in-combination effects with the Proposed Development.

- Fingal County Development Plan 2017-2023

It is noted that there is potential for proposed plans and projects within the Fingal County Development Plan 2017 - 2023 land area, to have cumulative, negative impacts on conditions in receiving waterbodies i.e., rivers, streams, lakes and coastal waters, via surface water contamination, and foul waters treated at wastewater treatment facilities. However, sustainable development, including SUDS measures for all new developments, is inherent in the objectives of all development plans within the Greater Dublin Area, as per the Greater Dublin Regional Code of Practice for Drainage Works, and will thus lead to an overall reduction in the potential for cumulative impacts of developments on receiving waterbodies in terms of operational contamination.

### 5.6.2 Conclusion with regards Cumulative Impacts

Collectively the Proposed Development and some of the above highlighted developments will not lead to a reduction of habitats and green spaces in the area. The Proposed Development will result in the replacement of like with like, as areas of hardstanding are transformed into residential and commercial buildings. It is noted that the Proposed Development further negates any habitat loss through the provision of a number of planted garden areas and green roofing included in the project design; with an overall increase in tree provision and green space to be a net result. As such, no significant cumulative habitat loss will occur involving the Proposed Development.

With regards to granted development FW17A/0083 entailing significant works along the Tolka Valley Park, the Proposed Development is located at a distance from the River Tolka and no construction related impacts involving the river are expected once the mitigation measures in this report are adopted. As such, no significant effects to the River Tolka and the species therein are envisaged involving the Proposed Development.

No significant Operational Phase pollution effects are envisaged resulting from the Proposed Development itself, and as such, no potential for significant cumulative pollution effects involving the Proposed Development are deemed likely to occur.

## 5.7 “Do Nothing” Impact

In the scenario where the Proposed Development was not to go ahead, the lands would continue in their current condition as hardstanding and largely ornamental planting. The lands would continue to be relatively poor in terms of biodiversity, with the treelines and hedgerows present in the south-west providing some cover to local bird species.



## 5.8 Avoidance, Remedial & Mitigation Measures

### 5.8.1 Construction Phase

#### 5.8.1.1 Mitigation 1: Timing of Vegetation Clearance

To ensure compliance with the Wildlife Act 1976 as amended, the removal of areas of vegetation will not take place within the nesting bird season (March 1<sup>st</sup> to August 31<sup>st</sup> inclusive) to ensure that no significant impacts (i.e., nest/egg destruction, harm to juvenile birds) occur as a result of the Proposed Development. Where any removal of vegetation within this period is deemed unavoidable, a qualified Ecologist will be instructed to survey the vegetation prior to any removal taking place. Should nesting birds be found, then the area of habitat in question will be noted and suitably protected until the Ecologist confirms the young have fledged, or a derogation licence is obtained from the NPWS.

The following table provides guidance for when vegetation clearance is permissible. Information sources include the British Hedgehog Preservation Society's *Hedgehogs and Development* and The Wildlife (Amendment) Act, 2000.

*Table 5-5: Seasonal restrictions on vegetation removal. Red boxes indicate periods when clearance works are not permissible.*

Ecological Feature	January	February	March	April	May	June	July	August	September	October	November	December
Breeding Birds	Vegetation clearance permissible		<u>Nesting bird season</u> No clearance of vegetation or works to relevant structures permitted unless confirmed to be devoid of nesting birds by an ecologist.						Vegetation clearance permissible			
Hibernating mammals (namely Hedgehog, excluding bats)	<u>Mammal hibernation season</u> No clearance of vegetation or works to relevant structures permitted unless confirmed to be devoid of hibernating mammals by an ecologist.		Vegetation clearance permissible							<u>Mammal hibernation season</u> No clearance of vegetation or works to relevant structures permitted unless confirmed to be devoid of hibernating mammals by an ecologist.		
Bats	Tree felling to be avoided								Preferred period for tree-felling		Tree felling to be avoided	

The preferred period for vegetation clearance is within the months of September and October as per the above table. Vegetation should be removed in sections working in a consistent direction to prevent entrapment of protected fauna potentially present (e.g., Hedgehog). Where this seasonal restriction cannot be observed, a check for active roosts and nests will be carried out immediately prior to any Site clearance by an appropriately qualified ecologist /ornithologist and repeated as required to ensure compliance with legislative requirements.

#### **5.8.1.2 Mitigation 2: Good Site Hygiene**

As best-practise all construction-related rubbish on site e.g., plastic sheeting, netting etc. should be kept in a designated area and kept off ground level so as to prevent small mammals such as hedgehogs from entrapment and death.

Table 5-5 above should be referred to when planning any clearance of scrub and hedgerow/ treeline habitats, to reduce the potential for mortality to hibernating small mammal should they be present onsite.

#### **5.8.1.3 Mitigation 3: Noise Control**

A number of measures will be included in the CEMP as set out in *BS 5228-1: A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise*, that will be put in place during the Construction Phase of the Proposed Development. These will ensure that the level of noise caused by the proposed works will be controlled/reduced where possible so as to minimise the potential disturbance impact on local bird species.

These measures will include but are not limited to:

- Selection of plant with low inherent potential for generating noise.
- Avoid unnecessary revving of engines and switch off plant items when not required.
- Keep plant machinery and vehicles adequately maintained and serviced.
- Proper balancing of plant items with rotating parts.
- Keep internal routes well maintained and avoid steep gradients.
- Minimise drop heights for materials or ensure a resilient material underlies.
- Use of alternative reversing alarm systems on plant machinery.
- Where noise becomes a source of resonating body panels and cover plates, additional stiffening ribs or materials should be safely applied where appropriate.
- Limiting the hours during which site activities likely to create high levels of noise are permitted.
- Appointing a site representative responsible for matters relating to noise.
- Monitoring typical levels of noise during critical periods and at sensitive locations.

These measures will ensure that any noise disturbance to local birds or any other fauna species in the vicinity of the Site of the Proposed Development will be reduced to a minimum.

#### **5.8.1.4 Mitigation 4: Pre-felling Bat Surveys**

It is noted that, although largely being retained, a break in the western hedgerow will be required in its southernmost point; to facilitate an internal access roadway to the Major Town Centre zoned lands to the south. It is recommended that prior to the removal of any trees along this western Site boundary treeline/hedgerow, a pre-felling bat survey of these trees should be conducted by a suitably qualified bat specialist. Should bats be present, a derogation will be acquired from NPWS before such trees can be removed (felling of a confirmed bat roost without a licence is an offence under the Wildlife Act 1976 as Amended).

#### **5.8.1.5 Mitigation 5: Construction Phase Surface Water Management**

To prevent contaminated construction related surface waters entering existing surface water drains within or near the Site, the measures listed below will be put in place. These measures will be included as part of the contractor's Construction Environmental Management Plan (CEMP).

- Prior to construction commencing, all storm drains and curb inlets etc., within the Site area, and in close proximity, will be identified by the contractor and suitably protected from potential sediment/contaminant input. This can be accomplished by using temporary storm drain filters that come in a variety of forms e.g., porous fabric barriers such as curb inlet filters and drain guards (e.g., <https://ssienviroguide.ie/product/drain-guard/>). Other makes are available).
- The above drain protection measures will be checked, cleaned and maintained for efficacy throughout the Construction Phase, with checks carried out daily for damage or sediment loading and cleaning carried out as required.
- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site.
- Pumped concrete will be monitored to ensure there is no accidental discharge and will be carried out in dry weather.
- Mixer washings are not to be discharged into surface water drains and will be collected and disposed of at a suitably licenced facility.
- Debris and sediment captured by vehicle wheel washes will be collected and disposed off-site at a licensed facility.
- All oils, fuels and other chemicals will be stored in a secure bunded hardstand area (within the construction compound) and away from any drains or surface water inlets.
- Refuelling and servicing of construction machinery will take place in a designated hardstanding area (within the construction compound) which is also remote from any surface water inlets (when not possible carry out such activities off-site).
- A response procedure will be put in place to deal with any accidental pollution events, spillage kits will be available and construction staff will be inducted with regard to the emergency procedures/ use of spill kits.

## 5.8.2 Operational Phase

### 5.8.2.1 Mitigation 6: Bat Friendly Lighting

There is little to know suitable bat foraging habitat at the Site of the Proposed Development in its current condition (largely hardstanding carparking areas). Bats could potentially forage along the western hedgerow/treeline. This feature is largely being retained in the project design and thus impacts to bats are not envisaged. As a precautionary measure to protect this feature, operational site lighting will be designed to face away from the treeline and limit any lightspill onto same.

### 5.8.2.2 Habitat enhancement: Swift Boxes

It is recommended that Swift Boxes or Bricks are incorporated into the Proposed Development where possible. The incorporation of Swift Boxes or Bricks would help recover the declining swift population, which are now Red Listed in Ireland (Gilbert et al., 2021). The following recommendations are extracted from "Saving Swifts" by Birdwatch Ireland<sup>4</sup>.

Swift bricks/boxes:

- **should be** constructed of long-lasting material and securely fixed in position.
- **should be** erected at least five metres above ground level
- **should be** erected in sheltered cool areas out of the sun, or under an overhang and /or under the eaves. Bricks can be placed at any aspect, however, as they tend not to overheat the way that externally fitted boxes can.
- **should have** a clear airspace in front for access
- **should be** grouped (side by side in rows) as swifts are colony nesters
- **should avoid** sites which can be accessed by predators- cats, squirrels, magpies, rats.
- **should avoid** sites near plate glass windows because they are a known collision hazard for birds.
- **should not be** placed directly above ledges or other obstructions. Swifts drop before taking flight and can collide with obstacles below the nest entrance.
- **should not be** one above the other.
- **should not be** near spotlights or later fit spotlights near them.

It is advised to install a **Swift calling system** to attract Swifts and encourage them to take up residence at a new site. The placement and location of swift boxes/bricks should be decided based on consultation with a suitably qualified ecologist/ornithologist.

### 5.8.3 "Worst Case" Scenario

In a worst case scenario, where the mitigation measures recommended in this report were not to be adhered to, the removal of hedgerows and vegetation as part of the proposed works would be conducted during the nesting bird season; resulting in the destruction of nests and

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<sup>4</sup> <https://birdwatchireland.ie/app/uploads/2019/10/SavingSwifts-Guide.pdf>



eggs and potential mortality of nesting birds. This would be an offence under the Wildlife Act 1976 and amendments.

In a scenario where surface water drains are not protected during the Construction Phase, and a large fuel/chemical spill were to occur, hydrocarbons could enter the receiving drainage network and subsequently the River Tolka; leading to impacts on fish species therein.

## **5.9 Residual Impacts**

Impacts that remain once mitigation has been implemented or impacts that cannot be mitigated are known as residual impacts. Table 5-6 below provides a summary of the impact assessment for the identified Key Ecological Resources (KERs) and details the nature of the impacts identified, mitigation proposed and the classification of any residual impacts.

Standard Construction Phase control measures have been outlined to ensure that the Proposed Development does not impact on any species or habitats of conservation importance or designated sites. It is essential that these mitigation measures are complied with, in order to ensure that the Proposed Development complies with National conservation legislation.

Provided all mitigation measures are implemented in full and remain effective throughout the lifetime of the Proposed Development, no significant negative residual impacts on the local ecology or on any designated nature conservation sites, are expected from the Proposed Works.

Table 5-6: Summary of potential impacts on KER(s), mitigation proposed, and expected residual impacts.

Key Ecological Resource	Level of Significance	Potential Impact	Impact Without Mitigation			Proposed Mitigation/ Mitigating Factors	Residual Impact	
			Quality	Magnitude / Extent	Duration			Significance
Designated Sites								
Dublin Bay European Sites	International Importance	Likely significant impacts to the Dublin Bay European Sites were Screened out in the AA Screening Report which accompanies this application under separate cover. By Proxy, this assessment also applies to North Dublin pNHA.  Please refer to the AA Screening Report for further details.						
North Dublin Bay pNHA.	National Importance							
Habitats and Flora								
Hedgerows, Treelines	Local Importance (Higher Value)	Loss of habitats at the Site.	Negative	Local Scale	Short -term	Moderate	- Provision of new native tree, hedge and shrub planting.  - Provision of land-scaping across previous hard standing.	Short-term, negative, slight
Birds								
Bird assemblages	Local Importance (Higher Value)	Disturbance due to noise during Construction Phase	Negative	Local	Short term	Significant	- Suite of noise control measures to be included in the CEMP.	- Negative, Short-term, Slight.  - No Impact

Key Ecological Resource	Level of Significance	Potential Impact	Impact Without Mitigation			Proposed Mitigation/ Mitigating Factors	Residual Impact
			Quality	Magnitude / Extent	Duration	Significance	
Fish		Injury or death if vegetation clearance is conducted during nesting season.				<ul style="list-style-type: none"> <li>- Vegetation removal to be conducted outside of nesting season.</li> <li>- Ecologist to survey vegetation prior to removal if clearance is unavoidable during nesting season.</li> </ul>	
	Local Importance (Higher Value)	Construction Phase surface water run-off containing sediment/contaminants entering Tolka via drainage network.	Negative	Stretch of Tolka at outfall point and downstream.	Short-term	<ul style="list-style-type: none"> <li>- Protection of all existing storm drains within and near Site area (See section 5.8.1.5 for detail).</li> <li>- Measures to be contained in CEMP to ensure above protection measures are effective for entirety of Construction Phase.</li> <li>- General best practise construction measures to be in CEMP.</li> </ul>	<b>Imperceptible</b>

### 5.10 Monitoring

As mentioned above, a pre-felling bat survey will be carried out by a suitably qualified bat specialist prior to the felling of any trees along the western boundary treeline. Should bats be present, a derogation will be acquired from NPWS before such trees can be removed (felling of a confirmed bat roost without a licence is an offence under the Wildlife Act 1976 as Amended).

### 5.11 Interactions

There are interactions between this Biodiversity Chapter and those of Hydrology (chapter 7), Land and Soils (Chapter 6) and Landscape and Visual (chapter 11).

In terms of Land and Soils, there is overlap with the biodiversity chapter in that the potential impacts of the construction works, through excavation, construction etc., have the potential to adversely affect the receiving environment; both geological and ecological. The mitigation measures in both chapters overlap somewhat as they deal with protecting the receiving environment from the construction works e.g., protecting waterbodies and drains from pollution and sedimentation.

Likewise with Hydrology, the receiving surface water drainage network links to the River Tolka and so potential impacts to ecological receptors downstream of the Site are considered. Again, the potential for the construction phase to impact on receiving waterbodies and ecology in the vicinity of the Site is addressed via the mitigation measures proposed in these chapters.

In terms of Landscape and Visual, the proposed landscaping of the Site interacts with its biodiversity and ecology; through the changes that will occur to the existing habitats and flora at the Site. The landscaping proposals will entail losses and contributions in terms of vegetation at the Site, which in turn will affect the ecology of the Site. The Site in its current condition is not of high ecological value, and the proposed landscaping will not result in significant adverse effects in this regard.

### 5.12 Difficulties Encountered When Compiling

An extensive search of available datasets for records of rare and protected species within proximity of the Site of the Proposed Development has been undertaken as part of this assessment. However, the records from these datasets do not constitute a complete species list. The absence of species from these datasets does not necessarily confirm an absence of species in the area.

No difficulties were encountered in the preparation of this report.

### 5.13 References

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## **6 LAND SOIL AND GEOLOGY**

### **6.1 Introduction**

This Chapter of the Environmental Impact Assessment Report (EIAR) provides a description of the land, soils and geology within and immediately surrounding the Proposed Development Site, an assessment of the potential impacts of the Proposed Development on land, soils and geology and sets out any required mitigation measures where appropriate.

The principal objectives of this chapter are to identify:

- Land, soils, and geological characteristics of the receiving environment at the Proposed Development Site;
- Potential impacts that the Proposed Development may have on land, soils and geology including “worst case” scenario assessment;
- Potential constraints that the environmental attributes may place on the Proposed Development;
- Required mitigation measures which may be necessary to minimise any adverse impacts related to the Proposed Development; and
- Evaluate the significance of any residual impacts.

#### **6.1.1 Quality Assurance and Competence**

This chapter of the EIAR was written by Gareth Carroll BAI, Senior Environmental Consultant with Enviroguide Consulting with over 9 years’ experience in environmental assessment of brownfield and greenfield sites. The chapter was reviewed by Claire Clifford BSc., MSc., PGeo., EurGeol who is Technical Director of the Contaminated Land and Hydrogeology Division of Enviroguide Consulting and is a Professional Geologist with the Institute of Geologists of Ireland and has extensive experience in preparing environmental assessments for a range of project types and geological and hydrogeological site settings.

#### **6.1.2 Description of the Proposed Development**

Blanche Retail Nominee Limited intends to apply to Fingal County Council for permission for the construction of a mixed-use development located at the Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

In summary, the Proposed Development consists of the construction of 352No. apartments (comprising 44No. studios, 132No. 1 bed apartments, 155No. 2 bed apartments, and 21No. 3 bed apartments) and ancillary resident amenity floorspace, 5No. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1No. community facility, in 6no. buildings (Blocks A, B, C, D, J and K), ranging from 5No. to 13No. storeys in height. The Proposed Development includes for an extension of the existing multi storey car park from 4No. levels to 6No. levels and associated alterations to the existing multi storey car park to facilitate the Proposed Development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

The construction of 2No. additional levels (increasing from 4No. levels to 6No. levels) on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking

for the surface car parking to be removed from the Proposed Development Site and associated car parking provision for the Blocks A, B, C, D, J and K. The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park. The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks. Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the Proposed Development Site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the Proposed Development Site boundary.

Provision of telecommunications infrastructure at roof level comprising of 6No. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3No. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

The Proposed Development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2No. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.

There is no basement and only foundations and services will be below ground level.

The Proposed Development Site layout is presented in Figure 6-1.



*Figure 6-1: Proposed Development Site Layout (O'Mahony Pike Architects, Drawing No. 20053-OMP-00-RF-DR-A-1004)*

## 6.2 Study Methodology

### 6.2.1 Regulation and Guidance

The methodology adopted for the assessment takes cognisance of the relevant guidelines in particular the following:

- Environmental Protection Agency, August 2017. Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2017);
- Environmental Protection Agency, September 2015. Draft Advice Notes for preparing Environmental Impact Statements (EPA, 2015);
- Environmental Protection Agency, 2002. Guidelines on Information to be contained in Environmental Impact Statements (EPA, 2002);
- Environmental Protection Agency, 2003. Advice Notes on Current Practice in the preparation of Environmental Impact Statements (EPA, 2003);
- Institute of Geologists of Ireland Guidelines, 2002. Geology in Environmental Impact Statements, A Guide (IGI, 2002);



- Institute of Geologists of Ireland Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements (IGI, 2013);
- National Roads Authority, 2009. Guidelines on Procedures for the Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes (NRA, 2009); and
- OPR, June 2021. OPR Practice Note PN02. Environmental Impact Assessment Screening (OPR, 2021).

### 6.2.2 Phased Approach

A phased approach was adopted for this EIAR in accordance with Environmental Protection Agency (EPA) and Institute of Geologists of Ireland (IGI) guidelines as set out above and is described in the following sections.

**Element 1:** An Initial Assessment and Impact Determination stage was carried out by Enviroguide Consulting to establish the project location, type and scale of the Proposed Development, the baseline conditions, and the type of land, soil, geological environment, to establish the activities associated with the Proposed Development and to undertake an initial assessment and impact determination.

This stage of the assessment included a desk top study that comprised a review of published environmental information for the Proposed Development Site. The study area, for the purposes of assessing the baseline conditions for the Land, Soil and Geology Chapter of the EIAR, extends beyond the Proposed Development Site boundaries and includes potential receptors within a 2.0km radius of the Proposed Development Site. The extent of the wider study area was based on the Institute of Geologists of Ireland Guidelines (IGI, 2013) which recommend a minimum distance of 2.0km radius from the Proposed Development Site.

The desk study involved collecting all the relevant data for the Proposed Development Site and surrounding area including published information and details pertaining to the Proposed Development provided by the Applicant and design team.

A site walkover survey to establish the environmental site setting and baseline conditions at the Proposed Development Site relevant to the land, soil and geology environment was undertaken by Enviroguide Consulting on the 2<sup>nd</sup> of September 2021.

The Element 1 stage of the assessment was completed by Enviroguide Consulting and included the review of the following sources of information:

- Environmental Protection Agency (EPA) webmapping (EPA, 2022);
- Geological Survey Ireland (GSI) Datasets Public Viewer (GSI, 2022);
- Google Earth Mapping and Imagery (Google Earth, 2022);
- Ordnance Survey Ireland (OSI) webmapping (OSI, 2022);
- National Parks and Wildlife Services (NPWS) webmapping (NPWS, 2022);
- Teagasc webmapping (Teagasc, 2022); and
- Information provided by the Applicant pertaining to previous site investigations and the design proposals for the Proposed Development.

**Element 2:** The Direct and Indirect Site Investigation and Studies stage was carried out to refine the conceptual site model and undertake a detailed assessment and impact determination. The Direct and Indirect Site Investigation included the following:

- Intrusive site investigation including borehole drilling and trial pit excavation was undertaken by IGSL Limited between May 2021 and September 2021. Details of the scope and methods for the site investigation and the results are provided in the site investigation report included in Appendix B.
- A waste classification assessment of in-situ soil samples collected by IGSL during intrusive site investigations was undertaken by O' Callaghan Moran & Associates in September 2021. Details of the scope and methods for waste classification assessment and the results are provided in the waste classification report included in Appendix C.

The reviewed material for Element 2 of this assessment included the following:

- IGSL Limited, September 2021. Ground Investigation Report. Report No. 23311 (IGSL, 2021) (refer to Appendix B); and
- O' Callaghan Moran & Associates, September 2021. Waste Characterisation Assessment (OCMA, 2021) (refer to Appendix C).

**Element 3:** Evaluation of Mitigation Measures, Residual Impacts and Final Impact Assessment were based on the outcome of the information gathered in Element 1 of the assessment. Mitigation measures to address all identified adverse impacts that were identified in Element 1 of the assessment were considered in relation to the Construction Phase and the Operational Phase of the Proposed Development. These mitigation measures were then considered in the impact assessment to identify any residual impacts.

**Element 4:** Completion of the Land, Soils and Geology Section of the EIAR in this Chapter which includes all the associated figures and documents.

### 6.2.3 Description and Assessment of Potential Impact

Impacts will vary in quality from negative, to neutral or positive. The effects of impacts will vary in significance on the receiving environment. Effects will also vary in duration. The terminology and methodology used for assessing the 'impact' significance and the corresponding 'effect' throughout this Chapter are described in Table 6-1.

Table 6-1: Assessment of Potential Impacts Terminology and Methodology

Quality of Effects / Impacts	Definition
<b>Negative</b>	A change which reduces the quality of the environment
<b>Neutral</b>	No effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error.
<b>Positive</b>	A change that improves the quality of the environment
Significance of Effects / Impacts	Definition
<b>Imperceptible</b>	An effect capable of measurement but without significant consequences.
<b>Not Significant</b>	An effect which causes noticeable changes in the character of the environment but without significant consequences.

<b>Slight</b>	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Moderate</b>	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
<b>Significant</b>	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
<b>Very Significant</b>	An effect which, by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment.
<b>Profound</b>	An effect which obliterates sensitive characteristics.
<b>Duration of Effects / Impacts</b>	<b>Definition</b>
<b>Momentary</b>	Effects lasting from seconds to minutes
<b>Brief</b>	Effects lasting less than a day
<b>Temporary</b>	Effects lasting one year or less
<b>Short-term</b>	Effects lasting one to seven years
<b>Medium-term</b>	Effects lasting seven to fifteen years
<b>Long-term</b>	Effects lasting fifteen to sixty years
<b>Permanent</b>	Effects lasting over sixty years
<b>Reversible</b>	Effects that can be undone, for example through remediation or restoration

## 6.3 The Existing and Receiving Environment (Baseline Situation)

### 6.3.1 Site Location and Description

The Proposed Development Site is located at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

The Proposed Development Site is located approximately 10km northwest of Dublin City Centre and approximately 1km north of the village of Blanchardstown and is accessed via Road C and Road D of the Blanchardstown Centre Ring Road which intersects the Proposed Development Site.

The Proposed Development Site location is presented in Figure 6-2.



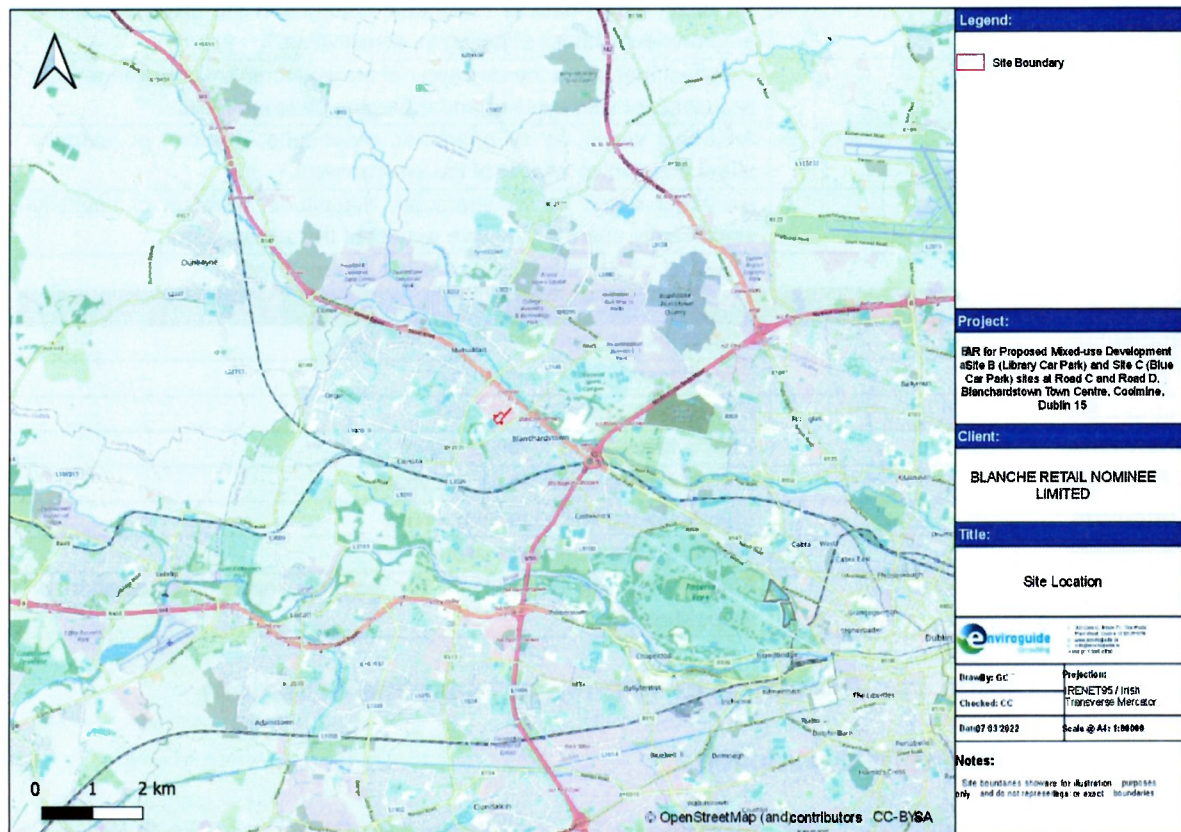


Figure 6-2: Proposed Development Site Location

### 6.3.2 Current Land Use at the Proposed Development Site

The Proposed Development Site is 2.55 hectares (Ha) incorporates two (2No.) site (Site B and Site C) which are separated by the Blanchardstown Town Centre Ring Road.

The Proposed Development Site is within lands that are zoned 'MC' Major Town Centre under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).

The Proposed Development Site comprises the following:

- Site B - the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices;
- Site C - the multi storey carpark site (known as the Blue Car Park) located to the southeast of the Blanchardstown Town Centre; and
- A section of Road C and Road D of the Blanchardstown Town Centre Ring Road, including the associated roundabout junction, verges and footpaths.

The existing Proposed Development Site Layout is presented in Figure 6-3.

Site B is bordered to the northwest and southwest by a sparsely populated treeline. Site B is bound to the southwest by Major Town Centre zoned lands in use by a Sports & Leisure Club, to the northwest by Blanchardstown Library and offices, and to the southeast by AIB Blanchardstown. A dry drainage ditch was identified along the southwest boundary of the



Proposed Development Site during the site walkover undertaken by Enviroguide Consulting on the 2<sup>nd</sup> September 2021.

Site C is located to the northeast of the Blanchardstown Town Centre Ring Road that intersects the Proposed Development Site. Site C is bound to the northwest and northeast Blanchardstown Town Centre and to the southeast by the Blanchardstown Town Centre Ring Road.

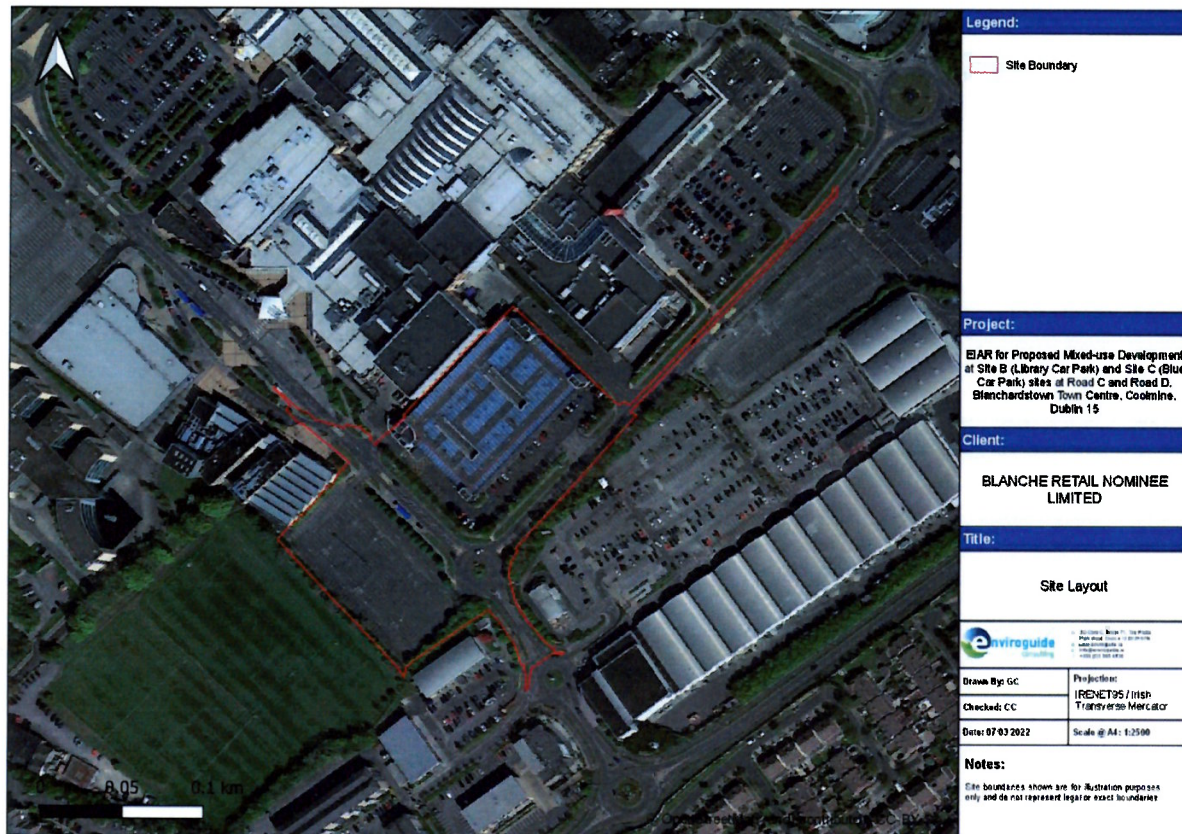


Figure 6-3: Existing Proposed Development Site Layout

### 6.3.3 Historical Land Use

Historical mapping and aerial photography available from the Ordnance Survey of Ireland website (OSI, 2022) and Google Earth (Google Earth, 2022) were reviewed and key observations on-site and off-site are summarised in Table 6-2.

Table 6-2: Historical Land Use

Date	Information Source	Site Description
1837-1842	OSI map 6inch	<p><b>On-site:</b> The Proposed Development Site is a greenfield site. There is an unnamed stream identified along the eastern boundary of the Proposed Development Site. The unnamed stream flows north before discharging to the Tolka River approximately 0.44km north of the Proposed Development Site.</p> <p><b>Off-site:</b> A roadway is identified approximately 0.04km northwest of the Proposed Development Site. The surrounding lands are predominantly open fields divided by field boundaries with a number of one-off building</p>

Date	Information Source	Site Description
		structures. There are a total of ten (10No.) 'gravel pits' identified within 2km of the Proposed Development Site.
1888-1913	OSI map 25inch	<b>On-site:</b> No significant changes. <b>Off-site:</b> There are only three (3No.) 'gravel pits' identified within 2km of the Proposed Development Site.
1830-1930	OSI Cassini map 6inch	<b>On-site:</b> No significant changes. <b>Off-site:</b> No significant changes.
1995	OSI Aerial photography	<b>On-site:</b> There are ground disturbance works identified on the Proposed Development Site. <b>Off-site:</b> The road previously identified to the northwest of the Proposed Development Site is no longer identified. There are development works identified on the lands to the north of the Proposed Development Site. The lands surrounding the Proposed Development Site have been significantly developed however the lands adjoining the southeast of the Proposed Development Site remain undeveloped and the lands to the southwest are occupied by playing fields. The N3 (now the M3) has been constructed to the north of the Proposed Development Site.
2000	OSI Aerial photography	<b>On-site:</b> The Blanchardstown Town Centre Ring Road intersects the Proposed Development Site. Two (2No.) car parks have been constructed in the northern and southern portions of the Proposed Development Site. The unnamed stream is no longer identified along the eastern boundary of the Proposed Development Site. <b>Off-site:</b> Blanchardstown Town Centre adjoins the northwest boundary of the Proposed Development Site. A car park adjoins the northeast boundary of the Proposed Development Site. There is development of the lands adjoining the southeast boundary of the Proposed Development Site (i.e., Blanchardstown Centre Ring Road, Blanchardstown Retail Park and associated car parking). A building structure is identified at the northwest boundary of the southern portion of the Proposed Development Site.
2005	OSI Aerial photography	<b>On-site:</b> The car park in the northern portion of the Proposed Development Site has been developed into a multistorey car park. <b>Off-site:</b> Blanchardstown Town Centre has been expanded and adjoins the northeast boundary of the Proposed Development Site. The lands surrounding the Proposed Development Site have been further developed.
2005-2013	OSI Aerial Photography	<b>On-site:</b> No significant changes <b>Off-site:</b> No significant changes.
2022	Google Maps Photography	<b>On-site:</b> No significant changes <b>Off-site:</b> No significant changes

### 6.3.4 Surrounding Land Use

The Proposed Development Site is located within the Blanchardstown Town Centre retail complex.

The lands surrounding the Proposed Development Site are zoned 'MC' Major Town Centre, 'RS' Residential, 'OS' Open Space and 'CI' Community Infrastructure under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).



### 6.3.5 Topography

The topographical survey of the Proposed Development Site indicated that the overall topography ranges from approximately 62.5meters above ordnance datum (maOD) in the south to 60.7maOD in the north (i.e., Site C).

- The southern portion of the Proposed Development Site (Site B) generally falls from west (62.5maOD) to east (61.8maOD) at gradients ranging from 1/80 to 1/150 (i.e., towards the existing roundabout adjacent to the northeast corner of Site B).
- The northern portion of the Proposed Development Site (Site C) generally falls from south (62.1maOD) to northeast (60.7mOD) at a gradient of approximately 1/100 (i.e., following the gradient of the adjacent Blanchardstown Town Centre Ring Road).

### 6.3.6 Soils

The soils beneath the Proposed Development Site have been mapped by Teagasc (Teagasc, 2022) as 'Urban'. The Teagasc (Teagasc, 2022) mapped soils at the Proposed Development Site are presented in Figure 6-4.

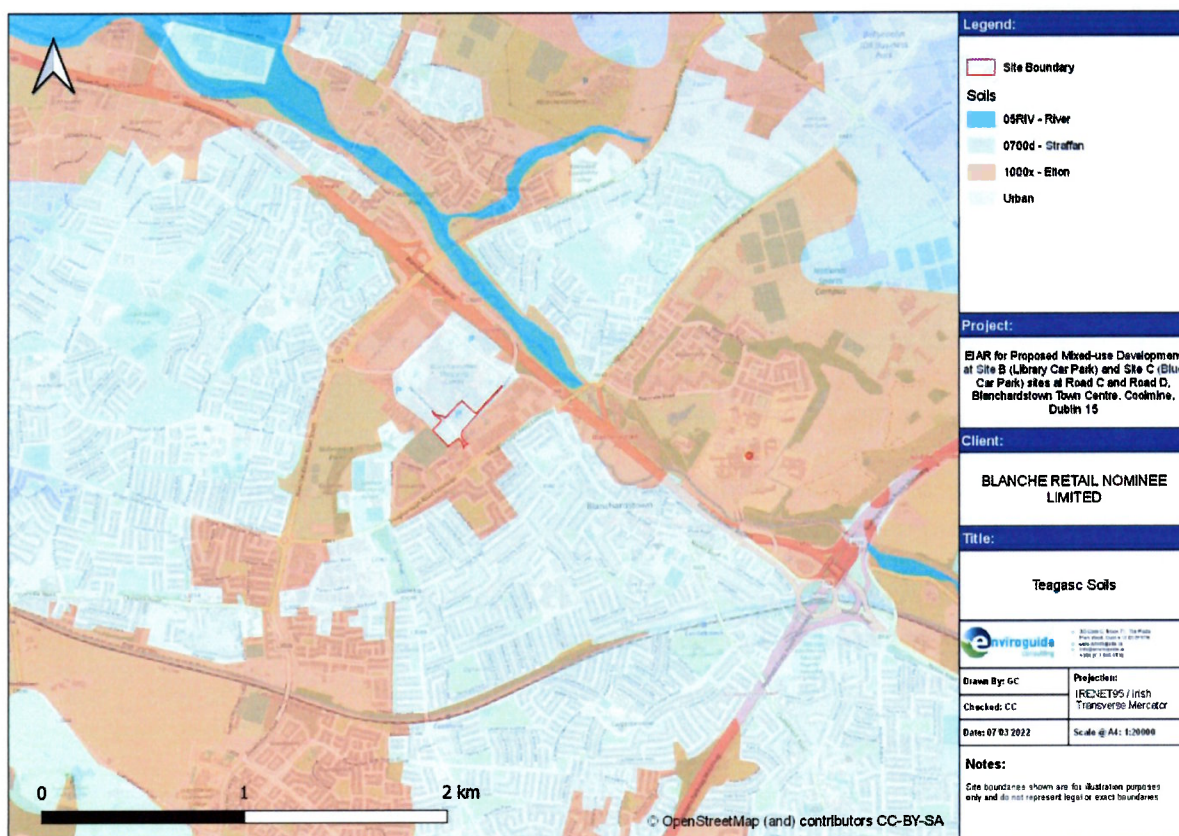


Figure 6-4: Soils

### 6.3.7 Quaternary Soils

The subsoils or quaternary sediments beneath the Proposed Development Site are mapped by the GSI (GSI, 2022) as 'till derived from limestones' (TLs). The quaternary geology at the Proposed Development Site is presented Figure 6-5.

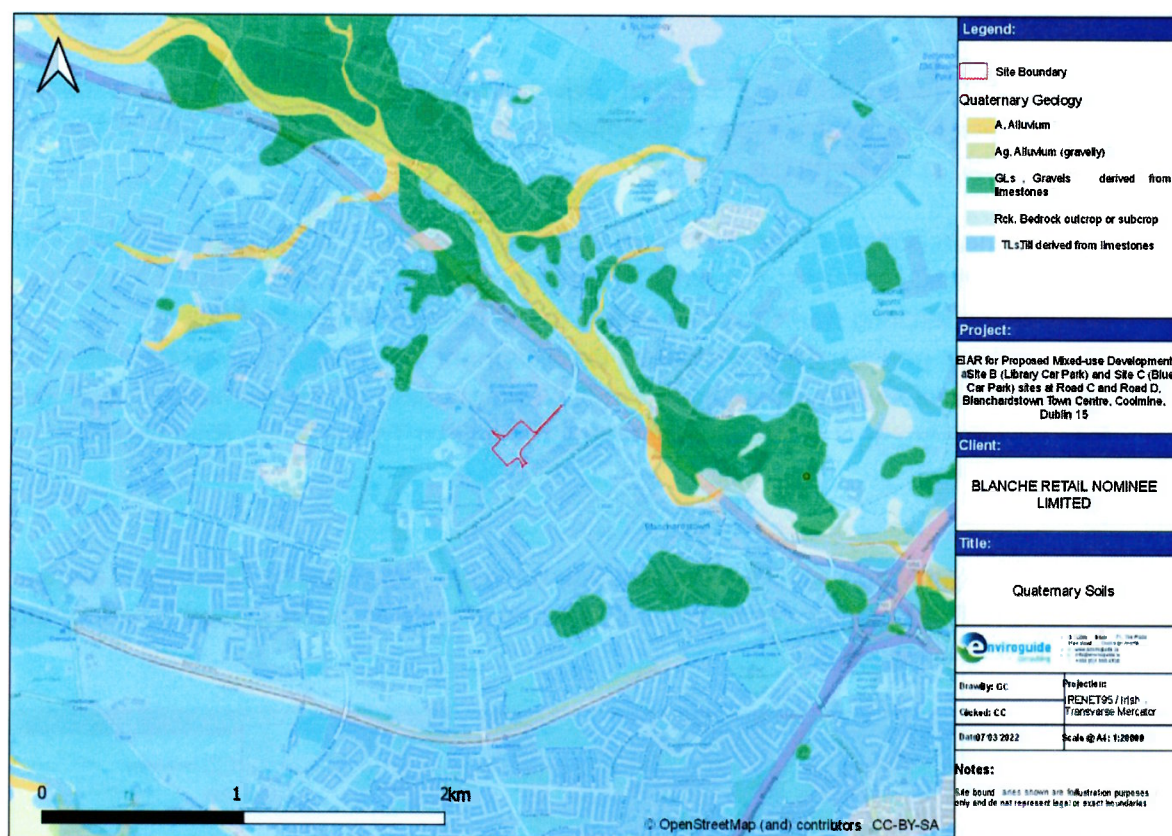


Figure 6-5: Quaternary Soils

### 6.3.8 Quaternary Geomorphology

There are a number of undifferentiated meltwater channels and glaciofluvial terrace landforms of the Tolka River System identified within a 2km radius and to the northeast /southeast of the Proposed Development Site (GSI, 2022).

There are a number of subglacial striae's oriented to the east / southeast identified within a 2km radius of the Proposed Development Site (GSI, 2022).

There is also a streamlined bedrock subglacial lineation identified 1.1km northeast of the Proposed Development Site. The subglacial lineation is orientated in a northwest to southeast direction (GSI, 2022).

### 6.3.9 Geochemical Domain

The GSI in partnership with the EPA has developed seven geochemical domains encompassing the main soil parent materials and rock types in Ireland and published Geochemically Appropriate Levels (GALs) for metals (GSI, 2020 and EPA, 2020).

The Proposed Development Site is located within Geochemical Domain 2 which is characterised as 'carboniferous limestones, shales and related rocks' (EPA, 2020). A summary of the metals values for Domain 5 are presented below in Table 6-3.

Table 6-3: Geochemically Appropriate Levels for Domain 5



Element	Units	Value
Arsenic	mg/kg	24.9
Cadmium	mg/kg	3.28
Chromium	mg/kg	83.9
Copper	mg/kg	63.5
Mercury	mg/kg	0.36
Nickel	mg/kg	61.9
Lead	mg/kg	86.1
Zinc	mg/kg	197.0

The findings of previous waste classification assessment of in-situ soil across the Proposed Development Site (O' Callaghan Moran & Associates, September 2021 – refer to Appendix C) identified that twelve (12No.) of the eighteen (18No.) soil samples collected meet the GALs for metals within Geochemical Domain 2 (refer to Section 6.3.11.4).

### 6.3.10 Bedrock Geology

Based on the GSI database (GSI, 2022) the bedrock beneath the Proposed Development Site is mapped as the Lucan Formation (Stratigraphic Code: LU; New Code CDLUCN) which is comprised of dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey from the lower Carboniferous period. There are rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. The formation ranges from 300m to 800m in thickness. There is a number of outcrops mapped within a 2km radius of the Proposed Development Site boundary the closest of which is located 0.26km west of the Proposed Development Site. However, bedrock outcrops were not identified within the Proposed Development Site boundary during the site walkover undertaken by Enviroguide on the 2<sup>nd</sup> September 2021.

The bedrock geology is presented in Figure 6-6.

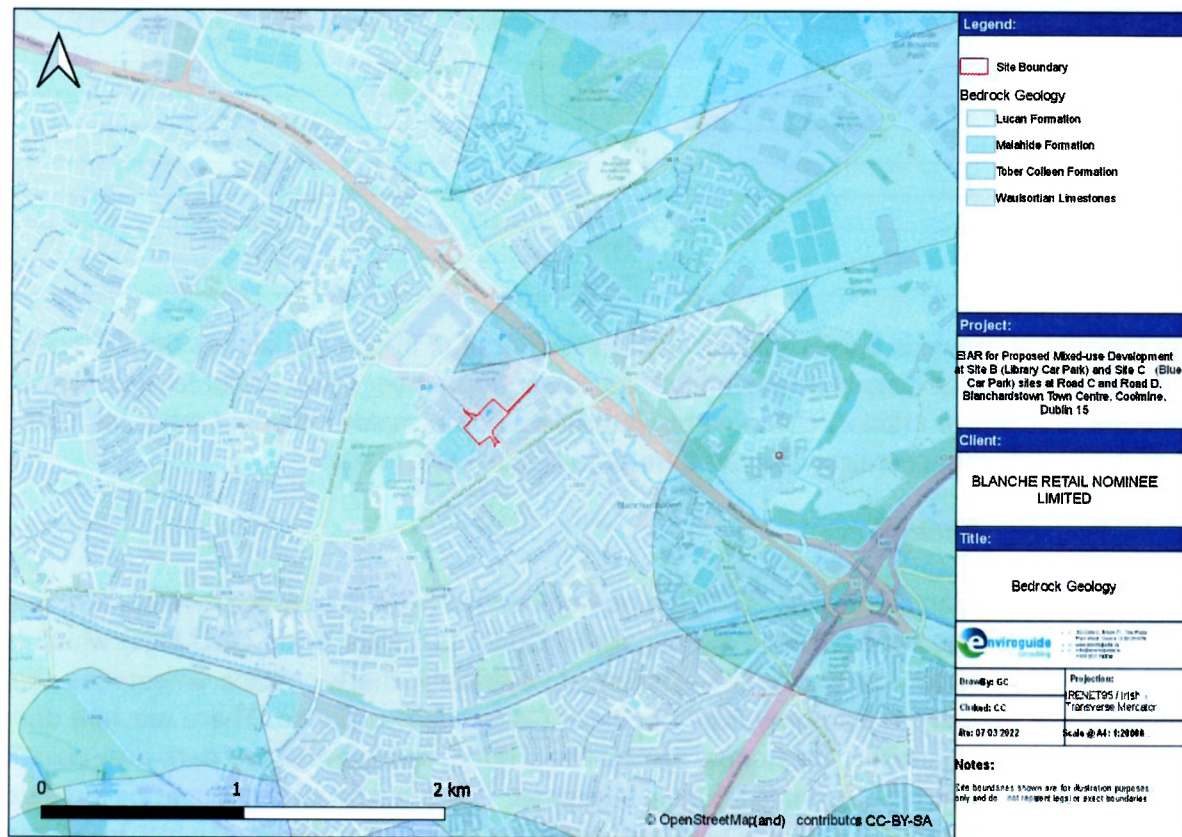


Figure 6-6: Bedrock Geology

### 6.3.11 Site Investigation Results

#### 6.3.11.1 Soils and Geology

The soils and bedrock encountered during the site investigation are described below and detailed logs are provided in the site investigation report (IGSL Limited, September 2021) included in Appendix B and the nine (9No.) site investigation locations (trial pits / window sample / air rotary boreholes) are shown in Figure 6-7.

- Tarmacadam at ground surface underlain by MADE GROUND comprising dark grey GRAVEL a maximum depth of 0.55 meters below ground level (mbGL).
- Made Ground comprising brown to grey sandy gravelly CLAY with inclusions of concrete and plastic was encountered in two locations at the Proposed Development Site (in the southwest portion of Site C) to between 1.1mbGL (TP/WS/RC21) and 1.6mbGL (TP/WS/RC20).
- The underlying soils comprised of brown, sandy, gravelly CLAY with cobbles and grey to brown slightly sandy, clayey GRAVEL to between 2.5mbGL (TP/WS/RC20) and 3.9mbGL (TP/WS/RC19).
- Bedrock described as black / dark grey fine-grained muddy LIMESTONE was encountered at depths below 2.5mbGL (TP/WS/RC20) and 3.9mbGL (TP/WS/RC19).

As documented in the site investigation report (IGSL Limited, September 2021), Uniaxial Compressive Strength (UCS) tests showed varying results with measured strengths in the

range of 2.5MPa to 65MPa, but mostly in the range 20MPa to 50MPa, which indicates predominately weak to medium strong bedrock.

The schematic geological cross sections based on information provided in the site investigation report (IGSL Limited, September 2021) is presented in Figure 6-8.

#### **6.3.11.2 Groundwater**

A groundwater monitoring well was installed at borehole location TP/WS/RC16. Measured groundwater levels for the August to September 2021 ranged between 1.96 meters below top of casing (mbTOC) or 60.13 meters above Ordnance Datum (maOD) and 1.97mbTOC or 60.12maOD (IGSL Limited, September 2021).

Groundwater is assessed in Chapter 7 of this EIAR.

#### **6.3.11.3 Soil Quality and Contaminated Land**

The soil encountered beneath the Proposed Development Site comprised tarmac surfacing and made ground with localised inclusions of anthropogenic contamination (i.e., concrete and plastic) overlying native material.

Soil analytical data for the eighteen (22No.) samples collected across the Proposed Development Site are provided in the site investigation report (IGSL Limited, September 2021) included in Appendix B and the waste classification report (O' Callaghan Moran & Associates, September 2021) included in Appendix C.

The reported analytical results indicated the presence of total petroleum hydrocarbons (TPH), mineral oil and poly aromatic hydrocarbons (PAHs) within shallow soils across the Proposed Development Site and are considered baseline conditions for the Proposed Development Site.

- Detectable concentrations of TPH were reported in soil sample WS17(0.7-1.4) with a concentration of 6200mg/kg;
- Detectable concentrations of mineral oil were reported in samples WS17(0.7-1.4) and WS22(1.0-1.5) with concentrations of 5700mg/kg and 3400mg/kg; and
- Detectable concentrations of PAHs were reported in samples WS16(1.0-1.5), WS17(0.7-1.4), WS21(1.0-1.6), WS22(1.0-1.5) and TP14(0.5-1.0) with concentrations ranging from 0.45mg/kg to 10mg/kg.

It is noted that the concentrations of TPH, Mineral Oil and PAHs in remaining samples were reported as less than laboratory limits of detection or not detected.

Furthermore, the concentrations of other key parameters used to determine the presence of anthropogenic contamination in soil (i.e., asbestos, BTEX and PCBs) in all samples collected across the Proposed Development Site were reported as less than laboratory limits of detection or not detected.

#### **6.3.11.4 Soil Waste Classification Assessment**

The findings of previous waste classification assessments of in-situ soil across the Proposed Development Site (O'Callaghan Moran & Associates, September 2021) are included in Appendix C and summarised below.

All eighteen (18No.) soil samples collected were classified as non-hazardous and assigned the List of Waste (LoW) Code 17 05 04 soil and stones other than those mentioned in 17 05 03.

The soil samples were screened against the waste acceptance criteria (Landfill WAC) set out in the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002).

- The analytical results for thirteen (13No.) of eighteen (18No.) samples meet the Inert Landfill WAC.
- The analytical results for one (1No.) of the eighteen (18No.) soil samples collected exceeds the Inert Landfill WAC however meets the Inert x 3 landfill WAC limits.
- The analytical results for four (4No.) of the eighteen (18No.) soil samples collected exceed the Inert Landfill WAC and Inert Landfill x 3 WAC limits, however the results meet the Non-Hazardous Landfill WAC (Category C).

The soil samples were also screened against the Maximum Concentrations and/or Soil Trigger Levels set out in the Environmental Protection Agency (2020) "Guidance on Waste Acceptance Criteria at Authorised Soil Recovery Facilities" (Inert Soil Recovery Facility WAC).

- The analytical results for twelve (12No.) of the thirteen (13No.) soil samples that meet the Inert Landfill WAC also meet the Inert Soil Recovery Facility WAC for Geochemical Domain 2 in which the Proposed Development Site is located.



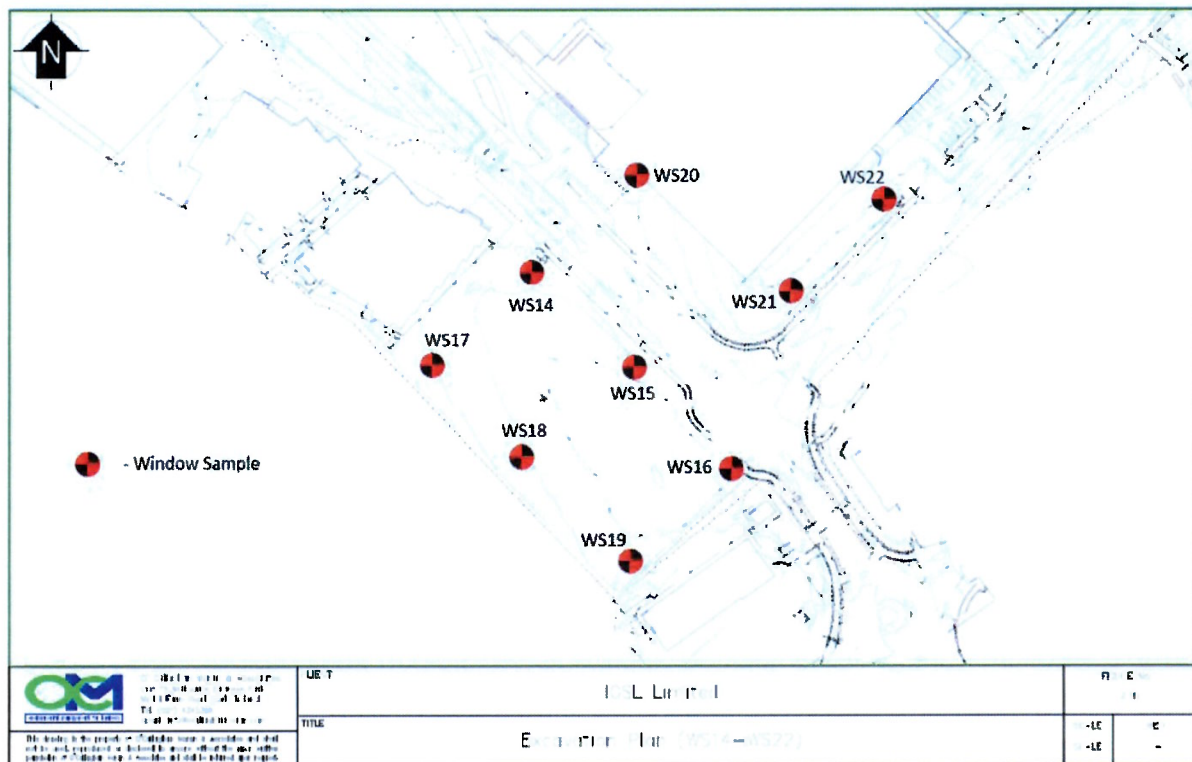


Figure 6-7: Site Investigation Locations (IGSL Limited, September 2021)

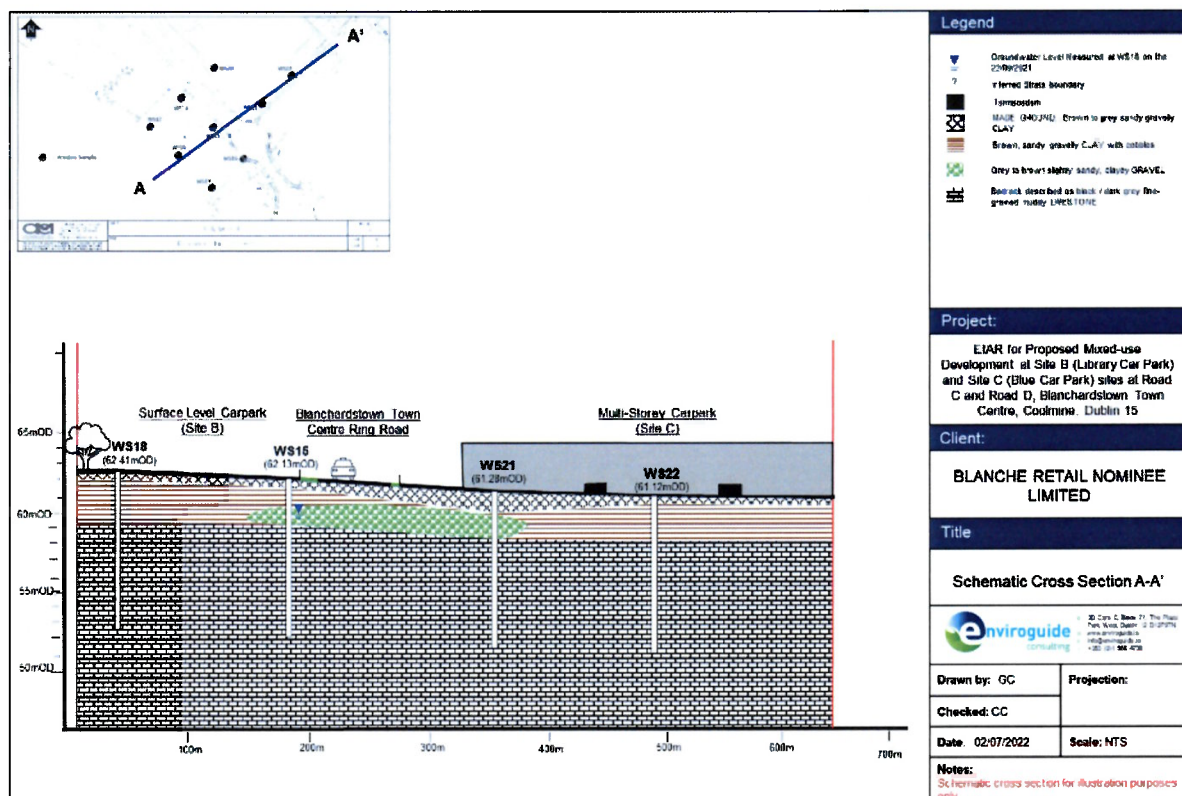


Figure 6-8: Schematic Cross Section

### 6.3.12 Radon

The Proposed Development Site is in an area mapped by the EPA (EPA, 2022) where less than one percent of the homes in a 10km grid square are estimated to be above the Reference Level. A High Radon Area is any area where it is predicted that between 5% and 10% of homes will exceed the Reference Level of 200 Becquerel per cubic metre (Bq/m<sup>3</sup>). Therefore, the Proposed Development Site is not considered to be within a High Radon Area. It is noted that a high radon level can be found in any home, in any part of the country, but these homes are more likely to be located in High Radon Areas.

### 6.3.13 Geological Heritage

A review of the GSI Geological Heritage Database (GSI, 2022) indicates that there are no recorded geological heritage sites located within 2km radius of the Proposed Development Site. The closest geological heritage sites to the Proposed Development Site are mapped as the Huntstown Quarry (Site code: DF022) which is located approximately 3.51km to the northeast of the Proposed Development Site and described as a 'working limestone quarry', and the 'Phoenix Park' which is located approximately 3.51km southeast of the Proposed Development Site and described as an extensive, 707Ha natural landscape (GSI, 2022).

### 6.3.14 Economic Geology

The Proposed Development Site and surrounding area is mapped by the GSI (GSI, 2022) as having no potential for granular aggregate.

The bedrock beneath the majority of the Proposed Development Site and surrounding area has been identified by the GSI (GSI, 2022) as having a 'moderate potential' for crushed rock aggregate.

### 6.3.15 Geohazards

The GSI (GSI, 2022) records for karst features indicate that there are no karst features within 2km of the Proposed Development Site and the closest karst feature within the Lucan Formation, which is the bedrock formation beneath the Proposed Development Site, is located approximately 6.31km to the southwest.

The Proposed Development Site is located within an area with a 'Low' landslide susceptibility classification (GSI, 2022). There are no landslides events recorded on the GSI database (GSI, 2022) at the Proposed Development Site and the closest is recorded for the Diswellstown 1990 event at the Knockmaroon Glen Quarry.

In Ireland, seismic activity is recorded by the Irish National Seismic Network operated by Dublin Institute for Advanced Studies (DIAS) which has been recording seismic events in Ireland since 1978. There are six permanent broadband seismic recording stations in Ireland operated by DIAS. Records since 2010 show that the majority of recorded seismic events were associated with quarry blasts and no recent events have been recorded within 2km of the Proposed Development Site or the greater Dublin area.

### 6.3.16 Summary of Baseline

The criteria for rating of the importance of geological features at the Proposed Development Site as set out in the NRA Guidelines (NRA, 2009), are summarised in Table 6-4.

Table 6-4: Criteria for Rating Site Importance of Geological Features (IGI, 2013)

Importance	Criteria	Typical Example
<b>Very High</b>	Attribute has a high quality, significance or value on a regional or national scale. Degree or extent of soil contamination is significant on a national or regional scale. Volume of peat and/or soft organic soil underlying route is significant on a national or regional scale.	Geological feature rare on a regional or national scale (NHA). Large existing quarry or pit. Proven economically extractable mineral resource.
<b>High</b>	Attribute has a high quality, significance or value on a local scale. Degree or extent of soil contamination is significant on a local scale. Volume of peat and/or soft organic soil underlying route is significant on a local scale.	Contaminated soil on-site with previous heavy industrial usage. Large recent landfill site for mixed wastes. Geological feature of high value on a local scale (County Geological Site). Well drained and/or high fertility soils. Moderately sized existing quarry or pit. Marginally economic extractable mineral resource.
<b>Medium</b>	Attribute has a medium quality, significance or value on a local scale. Degree or extent of soil contamination is moderate on a local scale. Volume of peat and/or soft organic soil underlying route is moderate on a local scale.	Contaminated soil on-site with previous light industrial usage. Small recent landfill site for mixed wastes. Moderately drained and/or moderate fertility soils. Small existing quarry or pit. Sub-economic extractable mineral resource.
<b>Low</b>	Attribute has a low quality, significance or value on a local scale. Degree or extent of soil contamination is minor on a local scale. Volume of peat and/or soft organic soil underlying route is small on a local scale.	Large historical and/or recent site for construction and demolition wastes. Small historical and/or recent landfill site for construction and demolition wastes. Poorly drained and/or low fertility soils. Uneconomically extractable mineral resource.

In accordance with the criteria in Table 6-4 the soil and geology underlying the Proposed Development Site is rated as an attribute of 'low' importance due to its current use as carparking for the Blanchardstown Town Centre and the presence of made-ground identified across the Proposed Development Site (IGSL Limited, September 2021). While there are some economic resources in the area there are limited to no resources at the Proposed Development Site and the economic extraction of crushed rock aggregate will not be feasible.

## 6.4 Characteristics of the Proposed Development

The Proposed Development comprises, six (6No.) 5-13 storey apartment buildings with ground floor commercial uses, alterations to the existing multi-storey carpark at Site C from four (4No.) to six (6No.) levels, provision of an undercroft car parking area at Site B, public open space, communal courtyards and external roof terraces, landscaping, public realm improvements and associated site and infrastructural works.

### 6.4.1 Construction Phase

The land-use at the Proposed Development Site will be changed from commercial land use (i.e., carparking) to a mixed use residential (i.e., apartment blocks) and retail / commercial land use (i.e., retail shops, office use, gym, restaurant or café, including ancillary takeaway use).

All foundations are pad foundations on bedrock with no requirement for piling.

There is no basement and only foundations and services will be below ground level.

The Proposed Development will involve excavation of soil and bedrock during the Construction Phase to depths of up to 4.0mbGL for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works. It is estimated by DBFL Consulting Engineers that 1,000m<sup>3</sup> of asphalt surfacing, 9,700m<sup>3</sup> of soil and stone and 250m<sup>3</sup> of bedrock will be excavated during the construction of the Proposed Development.

Due to the Proposed Development Site layout (ground floor levels and external pavement levels designed to follow the natural topography of the Proposed Development Site), there is limited potential for reuse of excavated soil and stone as non-structural fill. However, it is proposed that up to 1000m<sup>3</sup> of asphalt / concrete surfacing and 2,500m<sup>3</sup> of soil and stone excavated at the Proposed Development Site will be reused on-site to be incorporated into the design of the Proposed Development (i.e., granular material beneath road pavement, under floor slabs, for drainage and utility bedding / surrounds and construction phase haul routes etc.) assessment of the suitability for use in accordance with engineering and environmental specifications.

It is estimated by DBFL Consulting Engineers that a surplus of 7,450m<sup>3</sup> of soil and bedrock arising from groundworks will require off-site removal for reuse or recovery in accordance with appropriate statutory consents and approvals.

The importation of up to approximately 5,000m<sup>3</sup> of aggregate fill materials be required for the construction of the Proposed Development (e.g., granular material beneath road pavement, under floor slabs, for drainage and utility bedding / surrounds and construction phase haul routes etc.).

It is anticipated that there will be a requirement for local groundwater dewatering from trench exactions during the construction of foundations and utility infrastructure (i.e., attenuation tank, storm / foul water drainage) at the Proposed Development Site.



#### **6.4.2 Operational Phase**

There will be no excavation of soil or bedrock or infilling of waste during the Operation Phase of the Proposed Development.

There will be no direct discharges to ground during the Operational Phase of the Proposed Development.

The majority of the Proposed Development Site will continue to be hard covered with buildings and impermeable pavement on completion of the Proposed Development.

### **6.5 Potential Impact of the Proposed Development**

The procedure for determination of potential impacts on the receiving hydrological and hydrogeological environment is to identify potential receptors within the Proposed Development Site boundary and surrounding environment and use the information gathered during the desk study and site walkover to assess the degree to which these receptors will be impacted upon in the absence of mitigation. Impacts are described in terms of quality, significance, duration and type as detailed in Table 6-6.

#### **6.5.1 Construction Phase**

##### **6.5.1.1 Direct**

##### **Land Take**

There will be a land take of 2.55Ha for the entire Proposed Development with a change of land use from commercial land use to mixed use residential and retail/commercial land use. The Proposed Development is in line with the 'MC' Major Town Centre Technology zoning objective for the area where the Proposed Development Site is located. Therefore, the change of land use will result in a 'neutral', 'slight' and 'permanent' impact on the land at the Proposed Development Site.

##### **Excavation and Removal of Soil, Subsoil and Bedrock**

There will be an unavoidable loss of in-situ soil, subsoil and bedrock from the Proposed Development Site to achieve the required formation levels for the Proposed Development including building foundations, roads, drainage and other infrastructure.

The Proposed Development will involve excavation of soil and bedrock during the Construction Phase to depths of up to 4.0mbGL. Where possible, it is intended to retain and re-use suitable excavated soil and subsoil at the Proposed Development Site for engineering fill and landscaping, however it is anticipated that up to 9,700m<sup>3</sup> of soil and bedrock will be excavated during the Construction Phase of the Proposed Development, of which 7,450m<sup>3</sup> will require removal from the Proposed Development Site.

The underlying soil and bedrock at the Proposed Development Site is rated as an attribute of 'low' importance (IGI, 2013), due to it having no economic value, being of significance or value on a local scale only and/or being an uneconomically extractable mineral source. Accordingly, the excavation and removal of soils at the Proposed Development Site will have an

unavoidable 'negative', 'slight' and 'permanent' impact on soil and bedrock underlying the Proposed Development Site.

During excavation works, the stockpiling of soil and stone pending reuse on-site will result in the exposure of the materials to various elements including weather and construction traffic with a potential 'negative', 'slight' and 'long-term' impact on soil structure and the natural strength of the soil and subsoil.

### **Soil Quality and Contamination**

The excavation of made ground including some soils impacted with low levels of anthropogenic contamination (i.e., petroleum hydrocarbons – refer to Section 6.3.11.3) and permanent removal off-site is a design requirement of the Proposed Development. Accordingly, it is considered that there will be a 'positive', 'slight' and 'permanent' impact on the quality of shallow soils underlying the Proposed Development Site.

The reuse of up to 2,500m<sup>3</sup> of excavated soil and stone for the Proposed Development will have an 'neutral', 'imperceptible' and 'permanent' impact on given that it will have undergone testing for contaminants, invasive species and other anthropogenic inclusions and assessment of the suitability for use in accordance with engineering and environmental specifications for the Proposed Development.

There is a potential risk associated with the use of cementitious materials during construction of the buildings and infrastructure at the Proposed Development Site. Pre-cast concrete will be used where technically feasible. All foundations are pad and strip foundations with no requirement for piling. Therefore, any potential impact associated with cementitious material will be localised. Overall, it is considered that this may result in a 'negative', 'slight' and 'long-term' impact on existing quality of soil within a localised areas underlying the Proposed Development Site.

The potential accidental release of deleterious materials including fuels and other materials being used on-site, through the failure of secondary containment or a materials' handling accident on the Proposed Development Site could potentially result in a 'negative', 'moderate', 'long-term' impact on the receiving land, soil and geology depending on the nature of the incident.

### **Importation of Fill Material**

The Proposed Development will include the importation of 5,000m<sup>3</sup> aggregates including stone fill during the Construction Phase of the Proposed Development. In the unlikely event that aggregate materials are sourced from unlicensed or unauthorised sources, it may result in the importation of uncertified or material not suitable for use at the Proposed Development Site. In the unlikely event of the importation of contaminated materials on-site, there will be a 'negative', 'moderate to significant' and 'long term' impact on the receiving lands, soil and geology at the Proposed Development Site.

#### **6.5.1.2 Indirect**

### **Excavation and Removal of Soil**

The construction of the Proposed Development will involve the removal and disposal off-site of up to 7,450m<sup>3</sup> of surplus soil and bedrock. All surplus materials that require removal off-site will be removed in accordance with the requirements of the Outline Construction and Demolition Waste Management Plan (CDWMP) (Enviroguide, 2022) and managed in accordance with all statutory obligations. The off-site re-use of material will be prioritised to minimise the potential loss of valuable good quality soil and subsoil to landfill as a waste. The re-use of soil off-site will be undertaken in accordance with all statutory requirements and obligations including where appropriate re-use as by-product in accordance with Article 27 of the European Communities (Waste Directive) Regulations 2011 (SI No. 126 of 2011) as amended (referred to hereafter as Article 27).

Any surplus soil not suitable for re-use as a by-product and other waste materials arising from the Construction Phase will be removed off-site by an authorised contractor and sent to appropriately authorised (licensed/permitted) receiving waste facilities. As only authorised facilities will be used, the potential impacts at any authorised receiving facility sites will have been adequately assessed and mitigated as part of the statutory consent procedures. Accordingly, it is considered that off-site removal of surplus soil will have a 'neutral', 'imperceptible' 'permanent' impact on the receiving destination sites and facilities.

### **Importation of Fill Material**

The Proposed Development will include the importation of approximately 5,000m<sup>3</sup> of aggregates during the Construction Phase of the Proposed Development. The potential impacts may include loss of attribute and changes in the geological regime at the source site. It is anticipated that the required aggregates identified for importation on-site will have a 'neutral', 'imperceptible' and 'permanent' impact on the source site taking account of the fact that the statutory consent process will require the necessary environmental impacts to be assessed and mitigated as appropriate at the source site.

#### **6.5.1.3 Secondary**

There will be no secondary impacts associated with the Construction Phase of the Proposed Development.

### **6.5.2 Operational Phase**

#### **6.5.2.1 Direct**

During the operational phase of the Proposed Development there is limited potential for any direct adverse impact on the receiving soil, geological and hydrogeological environment at the Proposed Development Site taking account of the proposed design measures for the Proposed Development.

The design and construction of the Proposed Development in accordance with current Building Regulations will ensure that the Proposed Development will be suitable for use for the Operational Phase as a given the mixed use residential and retail/commercial land use taking account of the geological site setting.

There will be no discharges to, excavation of soil or bedrock or infilling of waste arising during the Operational Phase of the Proposed Development and therefore no associated impact on the lands, soil and geology at the Proposed Development Site.

With the exception of rainfall on landscaped areas of the Proposed Development Site, there will be no discharges to ground during the Operational Phase of the Proposed Development.

There will be no petroleum hydrocarbon-based fuels used during the Operational Phase and the Proposed Development Site will be connected to mains electricity and the main operating system for heating will be a combination of an air to water heat pump & mechanical heat recovery ventilation. Using such a system removes any potential contaminant sources associated with fuels.

All trafficked areas will be paved and connected to the surface water drainage network therefore in the unlikely scenario of an accidental spill from a vehicle there will be no discharge and potential impact to ground and the receiving land, soil and geology environment.

Therefore, there will be no direct impact on the receiving land, soils and geological environment associated with the Operational Phase of the Proposed Development.

#### **6.5.2.2 Indirect**

There will be no indirect impacts associated with the Operational Phase of the Proposed Development.

#### **6.5.2.3 Secondary**

There will be no secondary impacts associated with the Operational Phase of the Proposed Development.

### **6.5.3 Potential Cumulative Impacts**

#### **Potential Cumulative Impacts**

Cumulative Impacts can be defined as *"impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project"*. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

Table 6-5 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:



*Table 6-5 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	<b>Green Mall (Also known as the Central Mall) &amp; Yellow Mall</b>	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>"The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use."</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>

<b>FW18A/0168</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>“The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works.”</p>	<p>Excavated soil and stone from the Proposed Development Site could potentially be directed to the same receiving waste facilities for recovery / disposal as excavated soil and stone from other developments within the Dublin region.</p>
<b>FW20A/0030</b> <b>(Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>“Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension.”</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>
<b>FW20A/0018</b> <b>(Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>“Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancilla ryworks.”</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>“The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station.”</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>“It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance.”</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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<b>FW19A/0017</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>dac/145/19</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Cent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
<b>19/4224</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<b>FW18A/0116</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	
<b>18/4234</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	
<b>FW18A/0011</b>	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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Excavated soil and stone from the Proposed Development Site could potentially be directed to the same receiving waste facilities for recovery / disposal as excavated soil and stone from other developments within the Dublin region. Where feasible surplus soil and stone will be directed for re-use. All surplus soil and stone from the Proposed Development Site will be removed off-site in accordance with the requirements of the CDWMP (Enviroguide, 2022) and all statutory legislation. Surplus material to be removed off-site will be directed to appropriately permitted/licensed waste facilities operated in compliance with the relevant statutory consents for the facility. Accordingly, it is considered that any cumulative impact on the land, soils, geology associated with the Proposed Development will be 'neutral', 'imperceptible' and 'permanent'.

There are no other cumulative impacts on land, soil or geology associated with the Construction Phase and Operational Phase of the Proposed Development.

#### 6.5.4 "Do Nothing" Impact

In the 'Do Nothing' scenario the potential impact on the receiving land, soils and geological environment of the Proposed Development did not proceed is considered.

It is considered that there will be no change or resulting impact on the nature of the Proposed Development Site which will continue to be used for carparking (multi storey carpark to the



north and overflow ground level carpark to the south) and there will be no impact or change to the land, soil, geology at the Proposed Development Site.

The excavation of made ground including soils impacted with anthropogenic contamination (i.e., petroleum hydrocarbons – refer to Section 6.3.11.3) and permanent removal off-site will not occur and potential ongoing risks to water quality associated the existing site condition will remain.

## **6.6 Avoidance, Remedial & Mitigation Measures**

The mitigation measures, as outlined below, will ensure that there will be no significant impact on the receiving land, soil, and geology environment.

### **6.6.1 Construction Phase**

A Construction Environmental Management Plan (CEMP) (DBFL Consulting Engineers, March 2022) and CDWMP (Enviroguide Consulting, March 2022a) have been prepared as part of the planning application. The appointed Contractor will review and update the Construction Environmental Management Plan (CEMP) as necessary to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The CEMP and CDWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

### **Exportation of Soil**

Prior to excavation, a detailed review of the final cut and fill model will be carried out to confirm cut and fill volumes. Detailed quantities of material to be excavated will be verified through accurate survey techniques and detailed in the CDWMP (Enviroguide Consulting, March 2022) which will be further developed by the appointed Contractor in advance of works commencing.

All surplus materials and any waste will be removed off-site in accordance with the requirements outlined in the CDWMP (Enviroguide Consulting, 2022) and will be managed in accordance with all legal obligations.

The removal of soils and materials off-site for recovery / disposal will be undertaken in accordance with the soil waste classification presented in the O' Callaghan Moran & Associates, September 2021 waste classification report and where appropriate reused as a by-product in accordance with Article 27 of the European Communities (Waste Directive) Regulations 2011 (SI No. 126 of 2011) as amended.

It will be the Contractor's responsibility to either; possess a waste collection permit or, to engage specialist waste service contractors who will possess the requisite authorisations, for the collection and movement of waste off-site. Material will be brought to a facility which currently holds an appropriate waste facility permit or licence for the specified waste types.

Accordingly, there will be no impact on any off-site destination site associated with the Construction Phase of the Proposed Development.

Materials and waste will be documented prior to leaving the Proposed Development Site. All information will be entered into a waste management register kept on the Proposed Development Site.

### **Reuse of Soil and Stone**

The reuse of excavated soil and stone for the Proposed Development (i.e., for landscaping) will be subject to testing for contaminants, invasive species and other anthropogenic inclusions and assessment of the suitability for use in accordance with engineering and environmental specifications for the Proposed Development.

### **Management and Control of Soils and Stockpiles**

Segregation and storage of soils for re-use on-site or removal off-site and waste for disposal off-site will be segregated and temporarily stored on-site pending removal or for reuse on-site in accordance with the CEMP and the CDWMP.

Where possible, stockpiling of soil and stone on-site will be avoided. However, in the event that stockpiling is required, stockpiled materials, pending removal off-site or reuse on-site, will be located in sheltered regions of the Proposed Development Site and away from the location of any sensitive receptors.

For any excavated material identified for removal off-site, while assessment and approval of acceptance at a destination reuse site or waste facility is pending, excavated soil for recovery/disposal will be stockpiled as follows:

- A suitable temporary storage area will be identified and designated;
- All stockpiles will be assigned a stockpile number;
- Soil waste categories will be individually segregated; and all segregation, storage & stockpiling locations will be clearly delineated on the Proposed Development Site drawings;
- Erroneous pieces of concrete will be screened from the stockpiled soils and segregated separately;
- Soil stockpiles will be sealed to prevent run-off from the stockpiled material generation and/or the generation of dust; and
- Any waste that will be temporarily stored / stockpiled only impermeable surface high-grade polythene sheeting, hardstand areas or skips to prevent cross-contamination of the soil below or cross contamination with soil.

The location and moisture content of storage piles are important factors which determine their potential for dust emissions.

- Overburden material will be protected from exposure to wind by storing the material in sheltered regions of the Proposed Development Site; and
- Regular watering will take place to ensure the moisture content is high enough to increase the stability of the soil and thus suppress dust.

Waste will be stored on-site, including concrete, asphalt and soil stockpiles, in such a manner as to:

- Prevent environmental pollution (bunded and/or covered storage, minimise noise generation and implement dust/odour control measures, as may be required);
- Maximise waste segregation to minimise potential cross contamination of waste streams and facilitate subsequent re-use, recycling and recovery; and

Prevent hazards to site workers and the general public during construction phase (largely noise, vibration and dust

### **Import of Fill Materials**

Contract and procurement procedures will ensure that all imported materials (e.g., aggregates and topsoil) required for the Proposed Development will be sourced from reputable suppliers operating in a sustainable manner and in accordance with industry conformity/compliance standards and statutory obligations. The importation of aggregates will be subject to management and control procedures to ensure the suitability for use in accordance with engineering and environmental specifications for the Proposed Development. Therefore, any unsuitable material will be identified prior to unloading / placement on-site.

### **Concrete Works**

Pre-cast concrete will be used where technically feasible to meet the design requirements for the Proposed Development. Where cast-in-place concrete is required, all work will be carried out to avoid any contamination of the receiving geological environment through the use of appropriate design and methods implemented by the appointed Contractor and in accordance with industry standards.

All ready-mixed concrete will be delivered to the Proposed Development Site by truck. Concrete mixer trucks will not be permitted to wash out on-site with the exception of cleaning the chute into a container which will then be emptied into a skip for appropriate compliant removal off-site.

### **Handling of Fuels and Hazardous Materials**

Any diesel, fuel or hydraulic oils stored on-site will be stored in bunded storage tanks in a dedicated impermeable area a least 30m from watercourses. The bunded area will have a volume of at least 110% of the volume of the stored materials as per best practice guidelines (Enterprise Ireland, BPGCS005) and will be properly secured against unauthorised access or vandalism. There will be clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage.

Waste oils and hydraulic fluids will be collected in bunded containers and removed from the Proposed Development Site for disposal or re-cycling.

A procedure will be drawn up which will be adhered to during refuelling of on-site vehicles. This will include the following:

- All re-fuelling will take place in a designated impermeable area. In addition, oil absorbent materials will be kept on-site in close proximity to the re-fuelling area;
- Fuel will be delivered to plant on-site by dedicated tanker or in a delivery bowser dedicated to that purpose;
- All deliveries to on-site oil storage tanks will be supervised and records will be kept of delivery dates and volumes;
- In the case of a bowser, the driver or supervising foreman will check the delivery bowser daily for leakage;
- The driver will be issued with, and will carry at all times, absorbent sheets and granules to collect any spillages that may accidentally occur; and
- Where the nozzle of a fuel pump cannot be placed into the tank oil storage tank then a funnel will be used.

The appointed Contractor for the Construction Phase of the Proposed Development will ensure that all plant and equipment utilised on-site is in good working condition. Any equipment not meeting the required standard will not be permitted for use within the Proposed Development Site. Only emergency breakdown maintenance will be carried out onsite. Drip trays and spill kits will be available on-site to ensure that any spills from vehicles are contained and removed off-site.

There may also be the requirement for use of portable generators or similar fuel containing equipment during the Construction Phase of the Proposed Development, which will be placed on suitable drip trays. Regular monitoring of drip tray content will be undertaken to ensure sufficient capacity is maintained at all times.

### **Emergency Procedures**

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available on-site including in vehicles operating on-site. Construction staff will be familiar with emergency procedures for in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

- Any required emergency vehicle or equipment maintenance work will take place in a designated impermeable area within the Proposed Development Site;
- Emergency response procedures will be put in place, in the unlikely event of spillages of fuels or lubricants;
- Spill kits including oil absorbent material will be provided so that any spillage of fuels, lubricants or hydraulic oils will be immediately contained;
- In the event of a leak or spill from equipment in the instance of a mechanical breakdown during operation, any contaminated soil will be removed from the Proposed Development Site and compliantly disposed off-site. Residual soil will be tested to validate that all potentially contaminated material has been removed. This procedure will be undertaken in accordance with industry best practice procedures and standards;
- All construction works staff will be familiar with emergency procedures for in the event of accidental fuel spillages; and
- All construction works staff on-site will be fully trained on the use of equipment.



This procedure will be undertaken in accordance with industry best practice procedures and standards. These measures will ensure that there is minimal risk to the receiving hydrological and hydrogeological environment associated with the Construction Phase of the Proposed Development.

### **Welfare Facilities**

Portaloo's and/or containerised toilets and welfare units will be used to provide facilities for site personnel. All associated waste will be removed from the Proposed Development Site by a licensed waste disposal contractor.

### **6.6.2 Operational Phase**

There is no requirement for mitigation measures for the Operational Phase of the Proposed Development.

### **6.6.3 "Worst Case" Scenario**

Surface water runoff including runoff of deleterious material (i.e., fuels from vehicles on-site) will be directed to the stormwater drainage system and not to ground. In a 'Worst Case' scenario there is a potential risk of accidental release of untreated water via failure or rupture of the drainage system with potential impacts on the receiving geological environment. It is considered that the potential risk of the release of untreated water will present a 'negative', 'moderate' and 'medium-term' impact on the receiving environment. However, this is deemed to be an unlikely scenario.

## **6.7 Residual Impacts**

Residual Impacts are defined as 'effects that are predicted to remain after all assessments and mitigation measures. They are the remaining 'environmental costs' of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts.

The predicted impacts of the Construction and Operational Phases are described in Table 6-6 in terms of quality, significance, extent, likelihood and duration. The relevant mitigation measures are detailed, and the residual impacts are determined which take account of the avoidance, remedial and mitigation measures.

There are no significant residual impacts on land, soils and geology anticipated regarding this Proposed Development.

Table 6-6: Summary of Residual Impacts

Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
Construction Phase								
Construction of the Proposed Development.	Land take	There will be a land take of 2.55Ha for the entire Proposed Development with a change of land use from commercial land use to mixed use residential and retail/commercial land use.	Neutral	Slight	Permanent	Direct	None required. The Proposed Development is in line with the 'MC' Major Town Centre Technology zoning objective for the area where the Proposed Development Site is located	Slight
Excavation Soil and Bedrock	Soil, Subsoil and Bedrock	The Proposed Development will require the excavation of 9,700m <sup>3</sup> soil, subsoil and bedrock.	Negative	Slight	Permanent	Direct	The potential impacts on the underlying soils are unavoidable and there is no mitigation. The underlying soil and bedrock at the Proposed Development Site is rated as an attribute of 'low' importance (IGI, 2013), due to it having no economic value, being of significance or value on a local scale only and/or being an uneconomically extractable mineral source.	Slight
Excavation Soil and Bedrock	Soil Structure	Stockpiling of soil and subsoil pending reuse on-site will result in the	Negative	Slight	Long-term	Direct	Soil and subsoil pending re-use on-site will be stockpiled in a	Imperceptible

Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
		exposure of the materials to various elements including weather and construction traffic.					controlled manner and in accordance with the requirements of the CEMP which will be developed by the appointed Contractor in advance of construction works commencing.	
Excavation of Made Ground	Soil Quality	The excavation of made ground including some soils impacted with low levels of anthropogenic contamination (i.e., petroleum hydrocarbons) and permanent removal off-site is a design requirement of the Proposed Development	Positive	Slight	Permanent	Direct	None required.	Positive
Reuse of Excavated Soil and Subsoil	Soil Quality	It is proposed to reuse 2,500m <sup>3</sup> of excavated soil and subsoil for the Proposed Development.	Neutral	Imperceptible	Permanent	Direct	The reuse of excavated soil and stone for the Proposed Development will be subject to suitability for use in accordance with engineering and environmental specifications.	Imperceptible
Use of cementitious materials.	Soil and bedrock	Potential release of cementitious material during construction works for foundations, pavements and infrastructure.	Negative	Slight	Long-term	Direct	The cementitious materials used during construction will avoid any contamination of soil and geology through the use of appropriate design and methods implemented	Imperceptible

Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
Accidental release of deleterious materials including fuel and other materials being used on-site.	Land, Soil and Geology	Potential (albeit low) for uncontrolled release of deleterious materials including fuels and other materials being used on-site, through the failure of secondary and tertiary containment or a materials handling accident, to the land, soil and geological environment.	Negative	Moderate	Long-term	Direct	by the appointed Contractor and in accordance with industry standards. Refuelling of plant during the Construction Phase will only be carried in a designated impermeable area on-site equipped with spillage kits. Any other diesel, fuel or hydraulic oils stored on-site or within fuel containing equipment will be stored in bunded storage tanks / drip trays.	Imperceptible
Import of required aggregates for the construction of the Proposed Development.	Land, Soil and Geology at the Proposed Development Site	The potential impacts may include importation of unsuitable of contaminated materials	Negative	Moderate to Significant	Long-term	Direct	Contract and procurement procedures will ensure that all imported aggregates meet with industry conformity/compliance standards and statutory obligations	Imperceptible
Excavation and removal of surplus soil and bedrock and bedrock off-site.	Land, Soil and Geology at the destination site / facility	The excavation and removal off-site of up to 7,450m <sup>3</sup> of surplus soil and bedrock during the Construction Phase of the Proposed Development has the potential to impact on the	Neutral	Imperceptible	Permanent	Indirect	Surplus material to be removed off-site will be sent for recovery / disposal at a suitable authorised facility in accordance with the CDWMP and all	Imperceptible



Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
Import of aggregates for required the construction of the Proposed Development.	Land, Soil and Geology at the source site	The Proposed Development will require the importation of up to 5,000m <sup>3</sup> of aggregates. The potential impacts may include loss of attribute and changes in the geological attribute at the source site.	Neutral	Imperceptible	Permanent	Indirect	relevant waste management legislation.  Only certified materials from authorised sources will be used.	Imperceptible
Excavation and Removal of In-situ Materials	Land, Soil and Geology at the destination site / facility	Excavated of soil and stone from the Proposed Development Site could potentially be directed to the same receiving waste facilities for recovery / disposal as excavated soil and stone from other developments within the Dublin region.	Neutral	Imperceptible	Permanent	Cumulative	All surplus soil and stone from the Proposed Development Site will be directed to appropriately permitted/licensed waste facilities operated in compliance with the relevant statutory consents for the facility.	Imperceptible
Operational Phase								
Accidental release of deleterious materials including fuel and other materials being used on-site.	Land, Soil and Geology	Potential for uncontrolled release of (i.e., fuels from vehicles on-site), through failure or rupture of the drainage system, to the land, soil and geological environment.	Negative	Moderate to Significant	Long Term	Worst Case	None required. Considered to be an unlikely scenario.	Imperceptible

## **6.8 Monitoring**

### **6.8.1 Construction Phase**

During the Construction Phase of the Proposed Development the following monitoring measures will be considered:

- Inspections and monitoring will be undertaken during excavations, piling and other groundworks to ensure that measures that are protective of water quality are fully implemented and effective;
- Discharges to surface water / foul sewers will be monitored where required in accordance with statutory consents (i.e., discharge licence);
- Routine monitoring and inspections during refuelling, concrete works to ensure no impacts and compliance with avoidance, remedial and mitigation measures; and
- Materials management and waste audits will be carried out at regular intervals to monitor the following:
  - Management of soils on-site and for removal off-site;
  - Record keeping;
  - Traceability of all materials, surplus soil and other waste removed from the Proposed Development Site; and
  - Ensure records are maintained of material acceptance at the end destination.

### **6.8.2 Operational Phase**

There are no monitoring requirements specifically in relation to land, soil and geology during the Operational Phase of the Proposed Development.

## **6.9 Interactions**

### **6.9.1 Population and Human Health**

Appropriate industry standard and health and safety legislative requirements will be implemented during the Construction Phase of the Proposed Development that will be protective of site workers.

Specific issues relating to Public Health associated with the Proposed Development are set out in Chapter 4 of this EIAR.

### **6.9.2 Hydrology and Hydrogeology**

An assessment of the potential impact of the Proposed Development on the hydrological and hydrogeological environment is included in Chapter 7 of this EIAR. Procedures for the protection of receiving water environment are set out in Chapter 7 of this EIAR.

### **6.9.3 Material Assets - Waste and Traffic**

The Proposed Development will include the removal off-site of up to 7,450m<sup>3</sup> surplus soil and stone for reuse/recovery/disposal. An assessment of the potential impact of the Proposed

Development on the material assets including built services, infrastructure and waste management is included in Chapter 13 of this EIAR.

#### **6.9.4 Biodiversity**

An assessment of the potential impacts of the Proposed Development on the Biodiversity of the Proposed Development Site, with emphasis on habitats, flora and fauna which may be impacted as a result of the Proposed Development are included in Chapter 5 of this EIAR. It also provides an assessment of the impacts of the Proposed Development on habitats and species, particularly those protected by national and international legislation or considered to be of particular conservation importance and proposes measures for the mitigation of these impacts.

#### **6.9.5 Landscape and Visual**

The landscape at the Proposed Development Site will undergo a change from commercial land use (i.e., carparking) to a mixed use residential (i.e., apartment blocks) and retail / commercial land use (i.e., retail shops, office use, gym, restaurant or café) with extensive landscaping. An assessment of the potential impact of the Proposed Development on the receiving landscape is included in Chapter 11 of this EIAR.

#### **6.9.6 Air Quality and Climate**

The excavation of soils across the Proposed Development Site and the temporary stockpiling of soils pending reuse or removal off-site has the potential to generate nuisance impacts (i.e., dust). An assessment of the potential impact of the Proposed Development on air quality and climate are included in Chapter 8 of this EIAR.

### **6.10 Difficulties Encountered When Compiling**

No difficulties were encountered in the preparation of this Chapter of the EIAR.

### **6.11 References**

Construction Industry Research and Information Association, 2001. Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors (CIRIA – C532).

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Teagasc, 2021 webmapping. <http://gis.teagasc.ie/soils/map.php>. Consulted on 22/09/2021.

## 7 HYDROLOGY

### 7.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) provides a description of the hydrology and hydrogeology (water) environment within and immediately surrounding the Site of the Proposed Development and an assessment of the potential impacts of the Proposed Development on hydrology and hydrogeology and sets out any required mitigation measures where appropriate.

The principal objectives of this chapter are to identify:

- Hydrological and hydrogeological characteristics of the receiving environment at the Proposed Development Site;
- Potential impacts that the Proposed Development may have on the receiving water environment;
- Potential constraints that the environmental attributes may place on the Proposed Development;
- Required mitigation measures which may be necessary to minimise any adverse impacts related to the Proposed Development; and
- Evaluate the significance of any residual impacts.

#### 7.1.1 Quality Assurance and Competence

This chapter of the EIAR was written by Gareth Carroll BAI, Senior Environmental Consultant with Enviroguide Consulting with over 9 years' experience in environmental assessment of brownfield and greenfield sites. The chapter was reviewed by Claire Clifford BSc., MSc., PGeo., EurGeol who is Technical Director of the Contaminated Land and Hydrogeology Division of Enviroguide Consulting and is a Professional Geologist with the Institute of Geologists of Ireland and has extensive experience in preparing environmental assessments for a range of project types and geological and hydrogeological site settings.

#### 7.1.2 Description of the Proposed Development

Blanche Retail Nominee Limited intends to apply to Fingal County Council for permission for the construction of a mixed-use development located at the Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

In summary, the Proposed Development consists of the construction of 352No. apartments (comprising 44No. studios, 132No. 1 bed apartments, 155No. 2 bed apartments, and 21No. 3 bed apartments) and ancillary resident amenity floorspace, 5No. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1No. community facility, in 6no. buildings (Blocks A, B, C, D, J and K), ranging from 5No. to 13No. storeys in height. The Proposed Development includes for an extension of the existing multi storey car park from 4No. levels to 6No. levels and associated alterations to the existing multi storey car park to facilitate the Proposed Development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

The construction of 2No. additional levels (increasing from 4No. levels to 6No. levels) on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the Proposed Development Site and associated car parking provision for the Blocks A, B, C, D, J and K. The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park. The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks. Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the Proposed Development Site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the Proposed Development Site boundary.

Provision of telecommunications infrastructure at roof level comprising of 6No. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3No. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

The Proposed Development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2No. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.

There is no basement and only foundations and services will be below ground level.

The Proposed Development Site layout is presented in Figure 7-1.



*Figure 7-1: Proposed Development Site Layout (O'Mahony Pike Architects, Drawing No. 20053-OMP-00-RF-DR-A-1004)*

Surface water runoff from the Proposed Development Site will be discharged to the existing surface water drainage infrastructure located on the grass verge along the Blanchardstown Centre Ring Road (refer to Figure 7-11 and Figure 7-12). As documented in the Infrastructure Design Report (DBFL Consulting Engineers, March 2022), the surface water management infrastructure for the Proposed Development has been designed in accordance with the Greater Dublin Strategic Drainage Study (GDSDS) and will incorporate Sustainable Drainage System (SuDS) features to reduce run-off and improve water quality.

Foul water from the Proposed Development will outfall via the new foul sewer network to the existing 450mm diameter foul sewer located to the northeast of the Proposed Development Site before discharging to the Irish Water (IW) 9C trunk sewer.

Water supply to the Proposed Development will be provided from the existing Irish Water (IW) piped infrastructure adjacent to the Proposed Development Site along the Blanchardstown Centre Ring Road (refer to Figure 7-11 and Figure 7-12).



## 7.2 Study Methodology

### 7.2.1 Regulations and Guidance

The methodology adopted for the assessment has regard to the relevant guidelines in particular the following:

- Council Directive 80/68/EEC, 1979. On the protection of groundwater against pollution caused by certain dangerous substances. Council of European Communities.
- Council Directive 2006/118/EEC, 2006. On the protection of groundwater against pollution and deterioration. European Parliament and the Council of European Communities.
- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy with amendments 2455/2001/EC, 2008/32/EC and 2008/105/EC (Water Framework Directive, WFD);
- Department of the Environment, Heritage and Local Government, Environmental Protection Agency and Geological Survey of Ireland, 1999. Groundwater Protection Schemes (DEHLG/EPA/GSI, 1999);
- Department of the Environment, Heritage and Local Government, 2009. Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DEHLG, 2009);
- Environmental Protection Agency, August 2017. Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2017);
- Environmental Protection Agency, September 2015. Draft Advice Notes for preparing Environmental Impact Statements (EPA, 2015);
- Environmental Protection Agency, 2002. Guidelines on Information to be contained in Environmental Impact Statements (EPA, 2002);
- Environmental Protection Agency, 2003. Advice Notes on Current Practice in the preparation of Environmental Impact Statements (EPA, 2003);
- Institute of Geologists of Ireland Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements (IGI, 2013);
- Local Government, July 1990. No. 21.1990. Local Government (Water Pollution) (Amendment) Act, 1990.
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- OPR, June 2021. OPR Practice Note PN02. Environmental Impact Assessment Screening (OPR, 2021)
- S.I. No. 272/2009 - European Communities Environmental Objectives (Surface Waters) Regulations 2009 including amendments S.I. No. 327/2012, S.I. No. 386/2015 and S.I. No. 77/2019.
- S.I. No. 9 of 2010 - European Communities Environmental Objectives (Groundwater) Regulations 2010 including amendments S.I. No. 149 of 2012 and S.I. No. 366 of 201; and

- WFD Working Group, 2005. Guidance on the Assessment of the Impact of Groundwater Abstractions (WFD, 2005).

## 7.2.2 Phased Approach

A phased approach was adopted for this EIAR in accordance with Environmental Protection Agency (EPA) and Institute of Geologists of Ireland (IGI) guidelines as set out above and is described in the following sections.

**Element 1:** An initial Assessment and Impact Determination stage was carried out by Enviroguide Consulting to establish the project location, type and scale of the Proposed Development, the baseline conditions, and the type of hydrological and hydrogeological environment, to establish the activities associated with the Proposed Development and to undertake an initial assessment and impact determination.

This stage of the assessment included a desk top study that comprised a review of published environmental information for the Proposed Development Site. The study area, for the purposes of assessing the baseline conditions for the Hydrology and Hydrogeology Chapter of the EIAR, extends beyond the Site boundaries and includes potential receptors within a 2.0km radius of the Proposed Development Site. The extent of the wider study area was based on the Institute of Geologists of Ireland (IGI) Guidelines (IGI, 2013) that recommends a minimum distance of 2.0km radius from the Proposed Development Site. This distance was reviewed during the desk top studies and revised to 15km, to identify potentially sensitive habitats which is a distance set out in AA / NIS methodologies (DEHLG, 2009). Designated and protected areas potentially hydraulically connected to the Proposed Development Site were also considered. The purpose of this increased search radius was to ensure that any potential hydrogeological / hydrological connections to sensitive habitats were identified.

The desk study involved collecting all the relevant data for the Proposed Development site and surrounding area including published information and details pertaining to the Proposed Development provided by the Applicant and design team.

A site walkover survey to establish the environmental site setting and baseline conditions at the Proposed Development Site relevant to the hydrological and hydrogeological environment was undertaken by Enviroguide Consulting on the 2<sup>nd</sup> of September 2021.

The Element 1 stage of the assessment was completed by Enviroguide Consulting and included the review of the following sources of information:

- Environmental Protection Agency (EPA) webmapping (EPA, 2022);
- Geological Survey Ireland (GSI) Datasets Public Viewer and Groundwater webmapping (EPA, 2022);
- National Parks and Wildlife Services (NPWS) webmapping (NPWS, 2022);
- Ordnance Survey Ireland (OSI) webmapping (OSI, 2022);
- Water Framework Directive Ireland (WFD) webmapping (WFD, 2022);
- Teagasc webmapping (Teagasc, 2022);
- Office of Public Works (OPW) database on historic flooding and the Catchment Flood Risk Assessment and Management (CFRAM) maps (OPW, 2022); and

Information provided by the Applicant pertaining to previous site investigations and the design proposals for the Proposed Development.

**Element 2:** The Direct and Indirect Site Investigation and Studies stage was carried out to refine the conceptual site model and undertake a detailed assessment and impact determination. The Direct and Indirect Site Investigation included the following:

- Intrusive site investigation including borehole drilling and trial pit excavation was undertaken by IGSL Limited between May 2021 and September 2021. Details of the scope and methods for the site investigation and the results are provided in the site investigation report included in Appendix B.

The reviewed material for Element 2 of this assessment included the following:

- IGSL Limited, September 2021. Ground Investigation Report. Report No. 23311 (IGSL, 2021) (refer to Appendix B).

**Element 3:** Evaluation of Mitigation Measures, Residual Impacts and Final Impact Assessment were based on the outcome of the information gathered in Element 1 of the assessment. Mitigation measures to address all identified adverse impacts that were identified in Element 1 of the assessment were considered in relation to the Construction and Phase and Operational Phase of the Proposed Development. These mitigation measures were then considered in the impact assessment to identify any residual impacts.

**Element 4:** Completion of the Hydrology and Hydrogeology sections of the EIAR in this Chapter which includes all the associated figures and documents.

### 7.2.3 Description and Assessment of Potential Impact

Impacts will vary in quality from negative, to neutral or positive. The effects of impacts will vary in significance on the receiving environment. Effects will also vary in duration. The terminology and methodology used for assessing the 'impact' significance and the corresponding 'effect' throughout this Chapter are described in Table 7-1.

Table 7-1: Assessment of Potential Impacts Terminology and Methodology

Quality of Effects / Impacts	Definition
<b>Negative</b>	A change which reduces the quality of the environment
<b>Neutral</b>	No effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error.
<b>Positive</b>	A change that improves the quality of the environment
Significance of Effects / Impacts	Definition
<b>Imperceptible</b>	An effect capable of measurement but without significant consequences.
<b>Not Significant</b>	An effect which causes noticeable changes in the character of the environment but without significant consequences.
<b>Slight</b>	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Moderate</b>	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
<b>Significant</b>	An effect which, by its character, magnitude, duration, or intensity alters a sensitive aspect of the environment.



<b>Very Significant</b>	An effect which, by its character, magnitude, duration, or intensity significantly alters a sensitive aspect of the environment.
<b>Profound</b>	An effect which obliterates sensitive characteristics.
<b>Duration of Effects / Impacts</b>	<b>Definition</b>
<b>Momentary</b>	Effects lasting from seconds to minutes
<b>Brief</b>	Effects lasting less than a day
<b>Temporary</b>	Effects lasting one year or less
<b>Short-term</b>	Effects lasting one to seven years
<b>Medium-term</b>	Effects lasting seven to fifteen years
<b>Long-term</b>	Effects lasting fifteen to sixty years
<b>Permanent</b>	Effects lasting over sixty years
<b>Reversible</b>	Effects that can be undone, for example through remediation or restoration

## 7.3 The Existing and Receiving Environment (Baseline Situation)

### 7.3.1 Site Location and Description

The Proposed Development Site is located at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

The Proposed Development Site is located approximately 10km northwest of Dublin City Centre and approximately 1km north of the village of Blanchardstown and is accessed via Road C and Road D of the Blanchardstown Centre Ring Road which intersects the Proposed Development Site.

The Proposed Development Site location is presented in Figure 6-2.

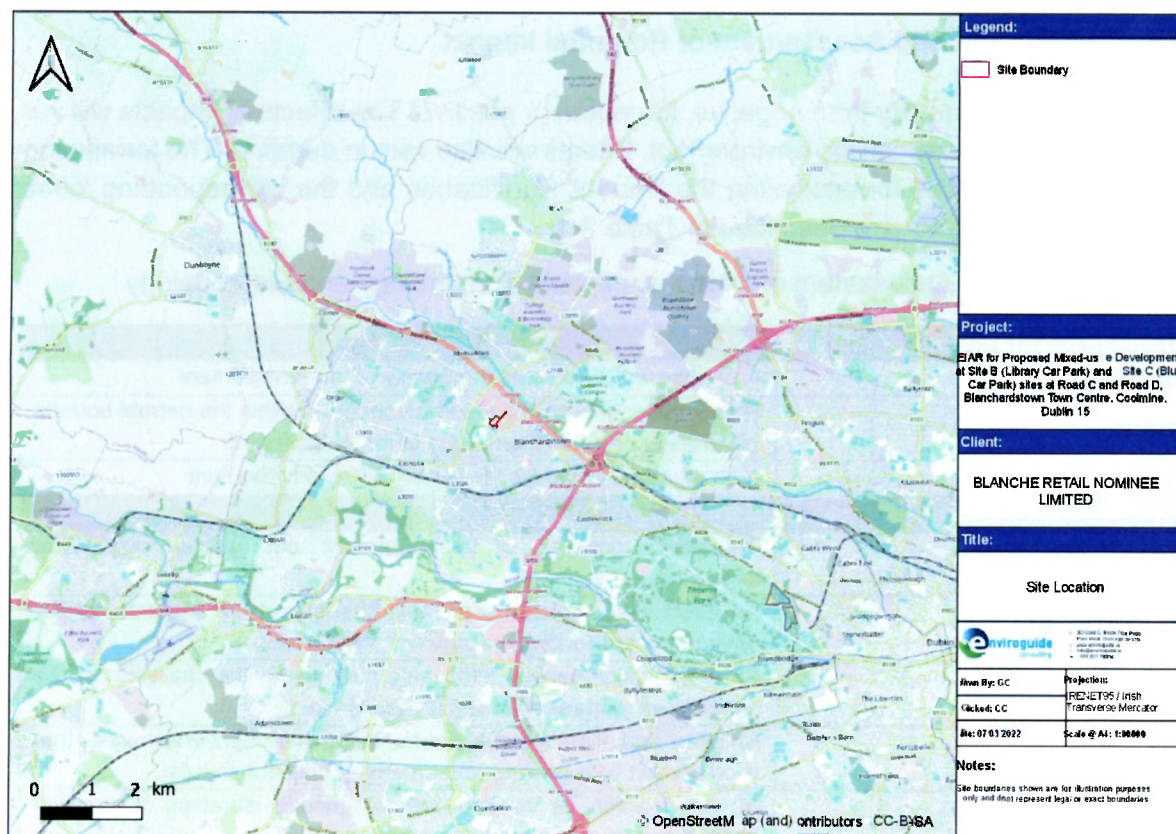




Figure 7-2: Site Location

### 7.3.2 Current Land Use at the Proposed Development Site

The Proposed Development Site is 2.55 hectares (Ha) incorporates two (2No.) site (Site B and Site C) which are separated by the Blanchardstown Town Centre Ring Road.

The Proposed Development Site is within lands that are zoned 'MC' Major Town Centre under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).

The Proposed Development Site comprises the following:

- Site B - the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices;
- Site C - the multi storey carpark site (known as the Blue Car Park) located to the southeast of the Blanchardstown Town Centre; and
- A section of Road C and Road D of the Blanchardstown Town Centre Ring Road, including the associated roundabout junction, verges and footpaths.

The existing Proposed Development Site Layout is presented in Figure 7-3.

Site B is bordered to the northwest and southwest by a sparsely populated treeline. Site B is bound to the southwest by Major Town Centre zoned lands in use by a Sports & Leisure Club, to the northwest by Blanchardstown Library and offices, and to the southeast by AIB Blanchardstown. A dry drainage ditch was identified along the southwest boundary of the Proposed Development Site during the site walkover undertaken by Enviroguide Consulting on the 2<sup>nd</sup> September 2021.

Site C is located to the northeast of the Blanchardstown Town Centre Ring Road that intersects the Proposed Development Site. Site C is bound to the northwest and northeast Blanchardstown Town Centre and to the southeast by the Blanchardstown Town Centre Ring Road.

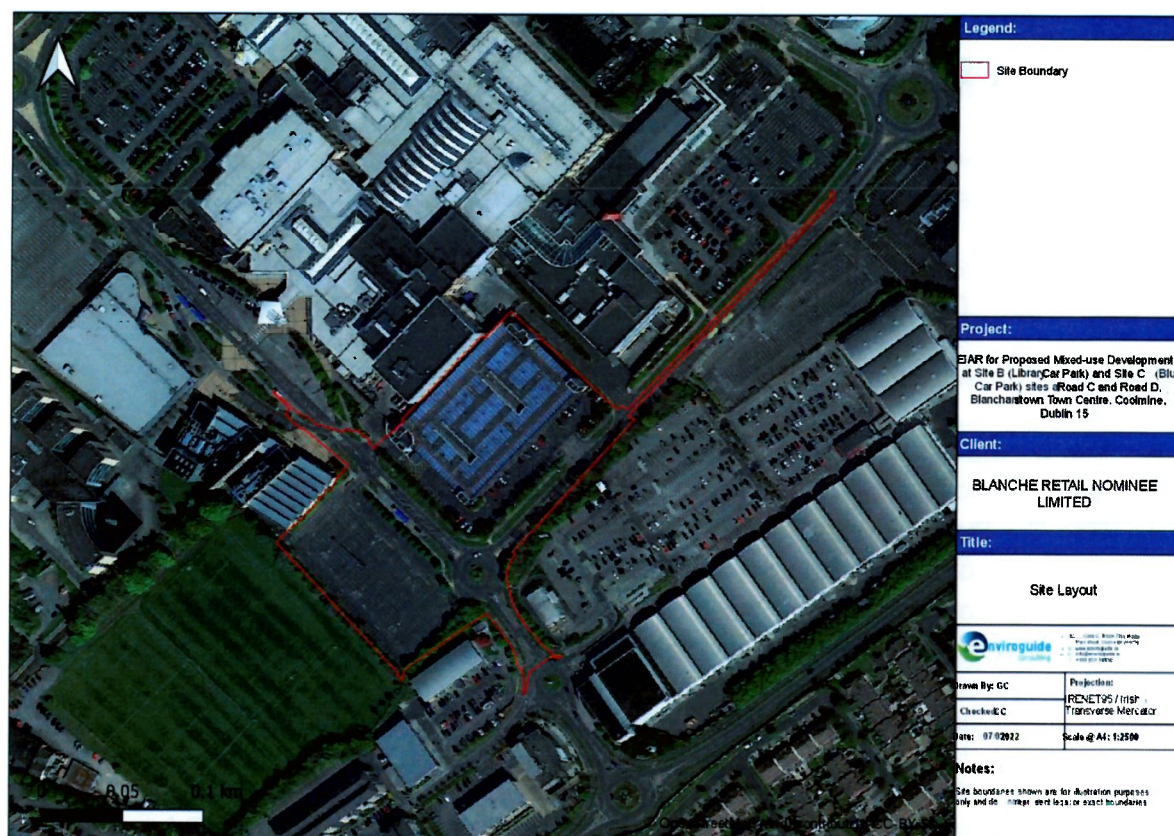


Figure 7-3: Existing Proposed Development Site Layout

### 7.3.3 Historical Land Use at the Proposed Development Site

Historical mapping and aerial photography available from the Ordnance Survey of Ireland website (OSI, 2022) and Google Earth (Google Earth, 2022) were reviewed and key observations on-site and off-site are summarised in Table 6-2.

Table 7-2: Historical Land Use

Date	Information Source	Site Description
1837-1842	OSI map 6inch	<p><b>On-site:</b> The Proposed Development Site is a greenfield site. There is an unnamed stream identified along the eastern boundary of the Proposed Development Site. The unnamed stream flows north before discharging to the Tolka River approximately 0.44km north of the Proposed Development Site.</p> <p><b>Off-site:</b> A roadway is identified approximately 0.04km northwest of the Proposed Development Site. The surrounding lands are predominantly open fields divided by field boundaries with a number of one-off building structures. There are a total of ten (10No.) 'gravel pits' identified within 2km of the Proposed Development Site.</p>
1888-1913	OSI map 25inch	<p><b>On-site:</b> No significant changes.</p> <p><b>Off-site:</b> There are only three (3No.) 'gravel pits' identified within 2km of the Proposed Development Site.</p>
1830-1930	OSI Cassini map 6inch	<p><b>On-site:</b> No significant changes.</p> <p><b>Off-site:</b> No significant changes.</p>
1995	OSI Aerial photography	<p><b>On-site:</b> There are ground disturbance works identified on the Proposed Development Site.</p> <p><b>Off-site:</b> The road previously identified to the northwest of the Proposed Development Site is no longer identified. There are development works identified on the lands to the north of the Proposed Development Site. The lands surrounding the Proposed Development Site have been significantly developed however the lands adjoining the southeast of the Proposed Development Site remain undeveloped and the lands to the southwest are occupied by playing fields. The N3 (now the M3) has been constructed to the north of the Proposed Development Site.</p>
2000	OSI Aerial photography	<p><b>On-site:</b> The Blanchardstown Town Centre Ring Road intersects the Proposed Development Site. Two (2No.) car parks have been constructed in the northern and southern portions of the Proposed Development Site. The unnamed stream is no longer identified along the eastern boundary of the Proposed Development Site.</p> <p><b>Off-site:</b> Blanchardstown Town Centre adjoins the northwest boundary of the Proposed Development Site. A car park adjoins the northeast boundary of the Proposed Development Site. There is development of the lands adjoining the southeast boundary of the Proposed Development Site (i.e., Blanchardstown Centre Ring Road, Blanchardstown Retail Park and associated car parking). A building structure is identified at the northwest boundary of the southern portion of the Proposed Development Site.</p>
2005	OSI Aerial photography	<p><b>On-site:</b> The car park in the northern portion of the Proposed Development Site has been developed into a multistorey car park.</p> <p><b>Off-site:</b> Blanchardstown Town Centre has been expanded and adjoins the northeast boundary of the Proposed Development Site. There lands surrounding the Proposed Development Site have been further developed.</p>
2005-2013	OSI Aerial Photography	<p><b>On-site:</b> No significant changes</p> <p><b>Off-site:</b> No significant changes.</p>
2022	Google Maps Photography	<p><b>On-site:</b> No significant changes</p> <p><b>Off-site:</b> No significant changes</p>



### 7.3.4 Surrounding Land Use

The Proposed Development Site is located within the Blanchardstown Town Centre retail complex.

The lands surrounding the Proposed Development Site are zoned 'MC' Major Town Centre, 'RS' Residential, 'OS' Open Space and 'CI' Community Infrastructure under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).

### 7.3.5 Topography

The topographical survey of the Proposed Development Site indicated that the overall topography ranges from approximately 62.5meters above ordnance datum (maOD) in the south to 60.7maOD in the north (i.e., Site C).

- The southern portion of the Proposed Development Site (Site B) generally falls from west (62.5maOD) to east (61.8maOD) at gradients ranging from 1/80 to 1/150 (i.e., towards the existing roundabout adjacent to the northeast corner of Site B).
- The northern portion of the Proposed Development Site (Site C) generally falls from south (62.1maOD) to northeast (60.7mOD) at a gradient of approximately 1/100 (i.e., following the gradient of the adjacent Blanchardstown Town Centre Ring Road).

### 7.3.6 Rainfall

Monthly rainfall data available for 1km x 1km grids (for the period 1981 to 2010) was sourced from Met Éireann (Walsh, 2012) and is presented in Table 7-3.

Table 7-3: Long Term Mean Monthly Rainfall Data (mm) (Walsh, 2012)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
67	52	55	57	63	69	58	78	64	84	78	79	805
Note: 1km x 1km Irish Grid Coordinates selected for the Proposed Development Site = X (Easting): 307000, Y (Northi ng)239000												

The closest the synoptic meteorological station to the Proposed Development Site is at the Phoenix Park which is located approximately 3.51km southeast of the Proposed Development Site. It is noted that the average potential evapotranspiration (PE) is not reported from the Phoenix Park station. The closest the synoptic meteorological station to the Proposed Development Site for which the average PE is reported is at Dublin Airport which is located approximately 10.4km east / northeast of the Proposed Development Site. A summary of the average PE at Dublin Airport station for the period 2018 to 2021 (Met Éireann, 2022) is presented in Table 7-4.

Table 7-4: Average Potential Evapotranspiration (Met Éireann, 2022)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
16.1	22.9	35.3	52.9	71.6	82.3	82.5	69.0	48.2	28.5	16.1	13.2	538.6



The average annual PE at the Proposed Development Site is 559.8mm/year (Met Éireann, 2022) (refer to Table 7-4). The GSI (GSI, 2022) have calculated an Effective Rainfall (ER) value of between 350.1mm/year across the Proposed Development Site.

### 7.3.7 Hydrology

The Proposed Development Site is mapped by the EPA (EPA, 2022) as within the WFD Catchment of the Liffey and Dublin Bay, Hydrometric Area (HA09), the Tolka Sub-catchment (Sub-catchment I.D.: 09\_4) and the Tolka WFD River Sub Basin (European Code: IE\_SE\_09T011000).

The closest surface water feature is named locally and recorded on the EPA database (EPA, 2022) as the Tolka River (IE\_EA\_09T010800) which is located approximately 0.27km northeast of the Proposed Development Site and flows eastwards, discharging into the Tolka Estuary (European Code: IE\_EA\_090\_0200), approximately 9.6km southeast of the Proposed Development Site.

The Royal Canal is located approximately 1.25km south of the Proposed Development Site.

A dry drainage ditch was identified along the southern boundary of the Proposed Development Site during the site walkover undertaken by Enviroguide Consulting on the 2<sup>nd</sup> September 2021.

Historical mapping and aerial photography available from the OSI website (OSI, 2022) and Google Earth (Google Earth, 2022) identify an unnamed stream along the southeast boundary of the Proposed Development Site. The maps identify that unnamed stream flows north before discharging to the Tolka River approximately 0.27km north of the Proposed Development Site. It is noted that this unnamed stream was not identified during the site walkover.

Other surface water features located within a 2km radius of the Proposed Development Site are presented in Table 7-5.

*Table 7-5: Local Surface Water Features within 2km*

EPA Name	River Waterbody Code	Location	Distance	Flow Direction
<b>River Tolka</b>	IE_EA_09T011000	Northeast	0.27km	Southeast
<b>Royal Canal</b>	N/A	South	1.25km	East
<b>Unnamed Stream</b>	N/A	Adjoining Southeast Boundary	0.0km	Northeast
<b>Barberstown 09 River</b>	IE_EA_09T010800	Northwest	1.30km	Northeast
<b>Powerstown 09 River</b>	IE_EA_09T010800	Northwest	1.46km	Southeast
<b>Ballycoolen Stream</b>	IE_EA_09T011000	North	0.90km	Southwest
<b>Abbotstown Stream</b>	IE_EA_09T011000	East	1.38km	Southwest
<b>Unnamed Stream</b>	IE_EA)09L012350	Southeast	1.95km	Southeast

Surface water runoff from the Proposed Development Site discharged via surface water gullies to the existing surface water drainage network serving the Blanchardstown Town Centre.

The local surface water features in within a 2km radius of the Proposed Development Site is presented in Figure 7-4.

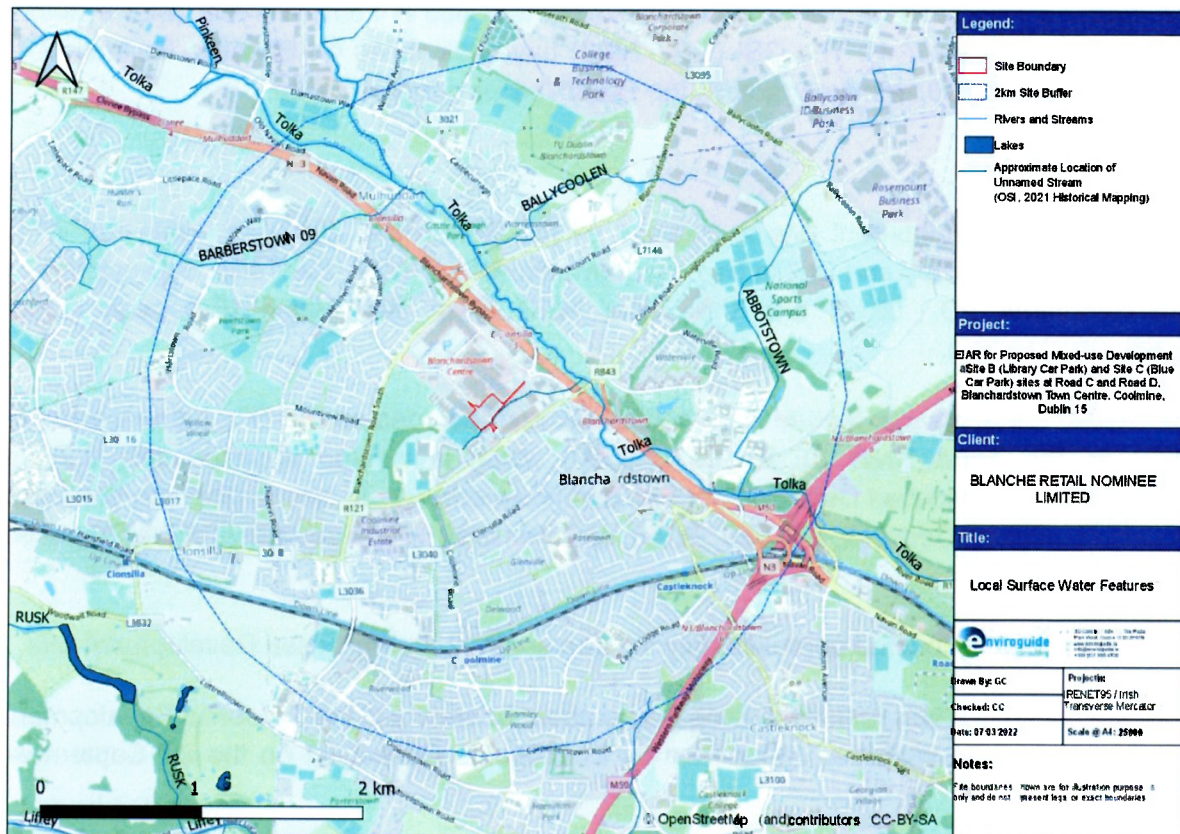


Figure 7-4: Local Surface Water Features

### 7.3.8 Surface Water Catchment Status

The River Waterbody WFD quality status for the Tolka River has been classified by the EPA (EPA, 2022) as “Poor” for the period of 2013-2018 and is identified as being “At Risk” of not achieving the Water Framework Objectives for the WFD Cycle 2 and Cycle 3 (EPA, 2022).

### 7.3.9 Surface Water Quality

The closest operational EPA monitoring stations on the Tolka River to the Proposed Development Site are the ‘Mulhuddart Br’ monitoring station (Station I.D.: RS09T010800) located approximately 1.39km northwest and upstream of the Proposed Development Site, the ‘Tolka - Old Corduff Rd Br u/s Blanchardstown’ monitoring station (Station ID: RS09T010900) located approximately 0.52km east and downstream of the Proposed Development Site, and the ‘Abbotstown Bridge’ station (Station ID: RS09T011000) monitoring station located approximately 1.97km east and downstream of the Proposed Development Site (EPA, 2022).

The EPA Q-Value is a system of water quality rating based on the biological quality of the water body and abundance for specific invertebrate species. A summary of the Q-value for the EPA monitoring locations outlined above is presented in Table 7-6.

Table 7-6: EPA Monitoring Stations within 2km of the Proposed Development

River I.D.	Sample Location / Monitoring Station	Q-Value (WFD Status)
Tolka River (1.39km upstream)	Mulhuddart Br Station I.D.: RS09T010800	2-3 (Poor) in 2019
Tolka River (1.97km downstream)	Abbotstown Bridge Station ID: RS09T011000	3 (Poor) in 2019
Tolka River (0.52km downstream)	Tolka - Old Corduff Rd Br u/s Blanchardstown Station ID: RS09T010900	3 (Poor) in 1994

There are a number of EPA monitoring stations located on the water courses in the immediate vicinity of the Proposed Development Site however there are 'not on a published monitoring programme' (EPA, 2022).

### 7.3.10 Designated and Protected Areas

There are five (5No.) sites located within a 15km radius of the Proposed Development Site that are identified as Special Areas of Conservation (SAC), three (3No.) sites that are identified as Special Protection Areas (SPAs) and thirteen (13No.) sites that are identified as proposed National Heritage Areas (pNHA). Designated and Protected areas located outside of the 15km radius but potentially hydraulically connected to the Proposed Development Site were also considered and include those associated with the Dublin Bay area.

The designated and protected sites located within a 15km radius of, or potentially hydraulically connected to the Proposed Development Site are summarised in Table 7-7 and presented in Figure 7-5.

Based on the baseline hydrological and hydrogeological regime at the Proposed Development Site, only designated and protected sites associated with Dublin Bay via the River Tolka, and Ringsend Wastewater Treatment Plant (WwTP) are considered to be potentially hydraulically connected. However, as detailed in the Appropriate Assessment Screening Report (Enviroguide Consulting, March 2022b) for this Proposed Development, submitted with this application under separate cover, the Proposed Development maintains no significant impact pathway with designated and protected areas located within Dublin Bay and likely significant impacts are therefore not envisaged.



Table 7-7: Designated and Protected Sites

Protected Site Classification	Site Name	Site Code	Distance to Site (km)	Potential Connection
<b>Special Protection Area (SPA)</b>	South Dublin Bay and River Tolka Estuary SPA	004024	11km east	Yes
	North Bull Island SPA	004006	14km east	Yes
	Malahide Estuary SPA	004025	14.6km northeast	No
<b>Special Area of Conservation (SAC)</b>	Rye Water Valley/ Carton SAC	001398	7.0km southwest	No
	South Dublin Bay SAC	000210	13.1km southeast	No
	North Dublin Bay SAC	000206	14.0km east	Yes
	Malahide Estuary SAC	000205	14.5km northeast	No
	Glenasmole Valley SAC	001209	14.6km south	No
<b>Proposed National Heritage Area (pNHA)</b>	Royal Canal	002103	1.25km south	No
	Liffey Valley	000128	2.5km southwest	No
	Rye Water Valley/ Carton	001398	7.3km southwest	No
	Grand Canal	002104	9.2km south	No
	Santry Demesne pNHA	000178	10.9km east	No
	North Dublin Bay	000206	14.4km northwest	Yes
	Feltrim Hill pNHA	001208	13.7km northeast	No
	Malahide Estuary pNHA	000205	14.8km northeast	No
	South Dublin Bay pNHA	000210	13.2km southeast	No
	Dodder Valley pNHA	000991	11.9km southeast	No
	Glenasmole Valley pNHA	001209	14.7km south	No
	Lugmore Glen pNHA	001212	13.2km south	No
	Slade of Saggart and Crossing Glen pNHA	000211	14.4km southwest	No



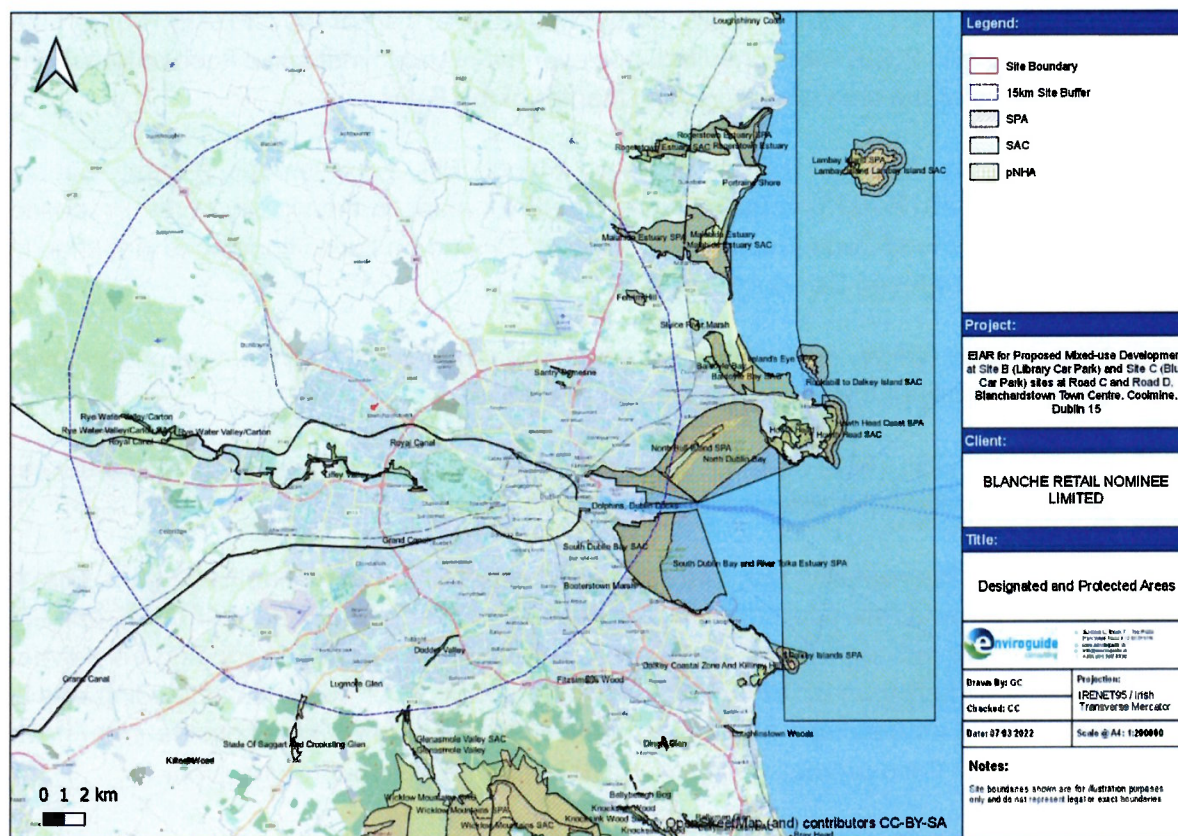


Figure 7-5: Designated and Protected Areas

### 7.3.11 Flood Risk

The Office of Public Works (OPW) national flood hazard mapping (NHFM) was consulted and lists four (4No.) single flood events within a 2km radius of the Proposed Development Site. As follows:

- The nearest single flood event was reported in November 2002 on the Navan Road adjacent to the Tolka Valley Park and approximately 0.7km northwest of the Proposed Development Site. The flood event was attributed to heavy rainfall causing flooding of the River Tolka.
- Two (2No.) additional flood events were reports in November 2002 in Pinebrook, Harstown and on the M50 at the N3 Interchange located approximately 1.47km west and 1.93km east of the Proposed Development Site Respectively. The flood events were attributed to heavy rainfall causing flooding of the River Tolka and surcharging of surface water ditches in Hartstown.
- One undated flood event was reported on Herbert Road, Blanchardstown approximately 0.92km east of the Proposed Development Site. The flood event was attributed to heavy rainfall causing flooding of the River Tolka and of residential gardens including the subfloor of one (1No.) house along the cul-de-sac of Herbert Road.

The OPW NHFM does not identify any reoccurring flood events within a 2km radius of the Proposed Development Site.

Fluvial and coastal flood mapping published by the OPW as part of the CFRAM Programme in 2016 / 2017 (OPW, 2022) was consulted, however the mapped indicative flood extent maps were not available at the time of writing this Chapter of the EIAR.

The Fingal County Council (FCC) Strategic Flood Risk Assessment (Fingal County Development Plan 2017-2023) contains fluvial flood risk maps in the vicinity of the Proposed Development Site (Flood Zone Mapping - Map 18 of 24) and no fluvial flooding is identified in the vicinity of the Proposed Development Site.

The OPW database (OPW, 2022) does not contain mapped information in relation to pluvial flooding for the vicinity of the Proposed Development Site.

The GSI database (GSI, 2022) does not contain mapped information in relation to groundwater flooding for the vicinity of the Proposed Development Site.

The findings of the Site-Specific Flood Risk Assessment (DBFL Consulting Engineers, March 2022b), submitted with this application under separate cover, concluded that the Proposed Development Site is located within Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1%AEP or 1 in 1000) for both river and coastal flooding and is considered suitable for development. The Proposed Development is also considered to have the required level of flood protection up to and including the 100year return event.

### **7.3.12 Soils and Geology**

The soils beneath the Proposed Development Site have been mapped by Teagasc (Teagasc, 2022) as 'Urban'.

The subsoils or quaternary sediments beneath the Proposed Development Site are mapped by the GSI (GSI 2022) as 'till derived from limestones' (TLs).

The bedrock beneath the Proposed Development Site is mapped as the Lucan Formation (Stratigraphic Code: LU; New Code CDLUCN) which is comprised of dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey from the lower Carboniferous period. There are rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. The formation ranges from 300m to 800m in thickness (GSI, 2022).

### **7.3.13 Site Investigation Results**

#### **7.3.13.1 Soils and Geology**

The soils and bedrock encountered during the site investigation are described below and detailed logs are provided in the site investigation report (IGSL Limited, September 2021) included in Appendix B and the nine (9No.) site investigation locations (trial pits / window sample / air rotary boreholes) are shown in Figure 7-6.

- Tarmacadam at ground surface underlain by MADE GROUND comprising dark grey GRAVEL a maximum depth of 0.55 meters below ground level (mbGL).
- Made Ground comprising brown to grey sandy gravelly CLAY with inclusions of concrete and plastic was encountered in two locations at the Proposed Development

Site (in the southwest portion of Site C) to between 1.1mbGL (TP/WS/RC21) and 1.6mbGL (TP/WS/RC20).

- The underlying soils comprised of brown, sandy, gravelly CLAY with cobbles and grey to brown slightly sandy, clayey GRAVEL to between 2.5mbGL (TP/WS/RC20) and 3.9mbGL (TP/WS/RC19).
- Bedrock described as black / dark grey fine-grained muddy LIMESTONE was encountered at depths below 2.5mbGL (TP/WS/RC20) and 3.9mbGL (TP/WS/RC19).

The schematic geological and hydrogeological cross sections based on information provided in the site investigation report (IGSL Limited, September 2021) is presented in Figure 7-7.

### **7.3.13.2 Groundwater**

All trial pits, which were excavated to a maximum depth of 1.2mbGL, remained dry and stable during the site investigation works undertaken at the Proposed Development Site by IGSL Limited (IGSL Limited, September 2021).

No groundwater strikes were observed during drilling, although it is noted that the water flush medium used during rotary drilling and coring can mask or obscure groundwater strikes (IGSL Limited, September 2021).

Water was present in all core holes at the end of drilling between 1.9mbGL and 2.9mbGL (IGSL Limited, September 2021).

A groundwater monitoring well was installed at borehole location TP/WS/RC16. Measured groundwater levels for the August to September 2021 ranged between 1.96 meters below top of casing (mbTOC) or 60.13 meters above Ordnance Datum (maOD) and 1.97mbTOC or 60.12maOD (IGSL Limited, September 2021).



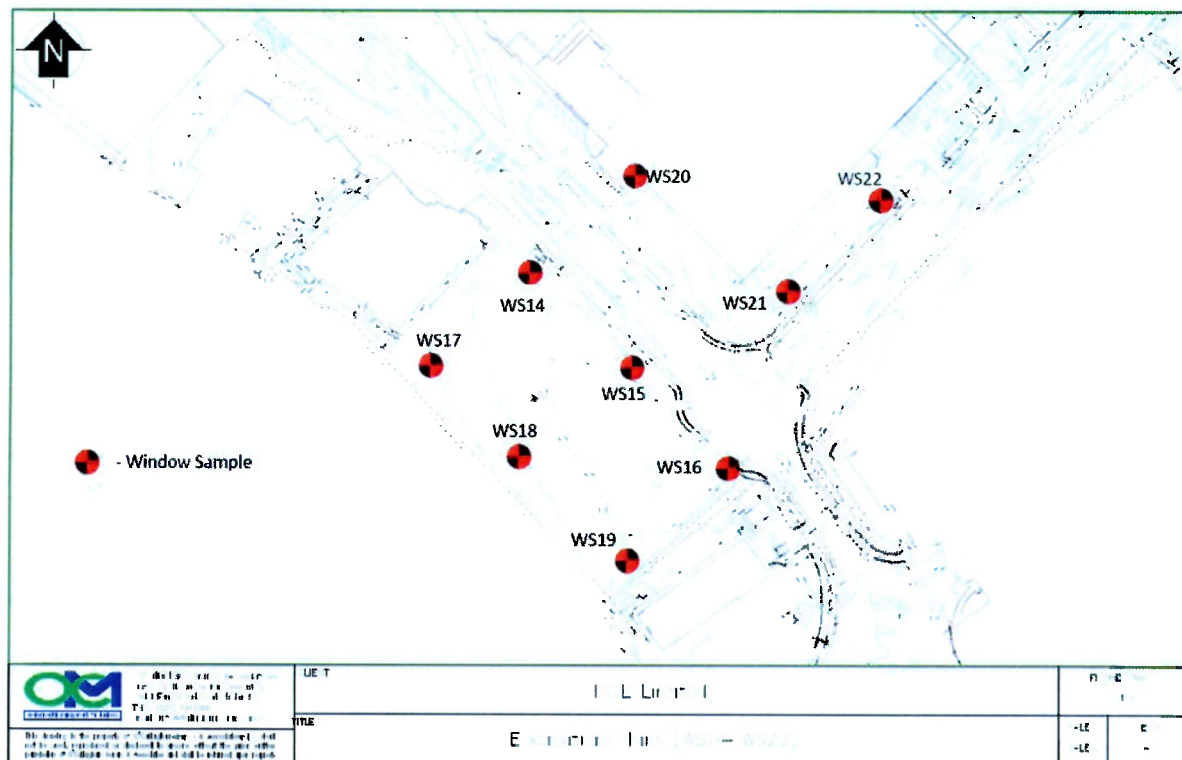


Figure 7-6: Site Investigation Locations (IGSL Limited, September 2021)

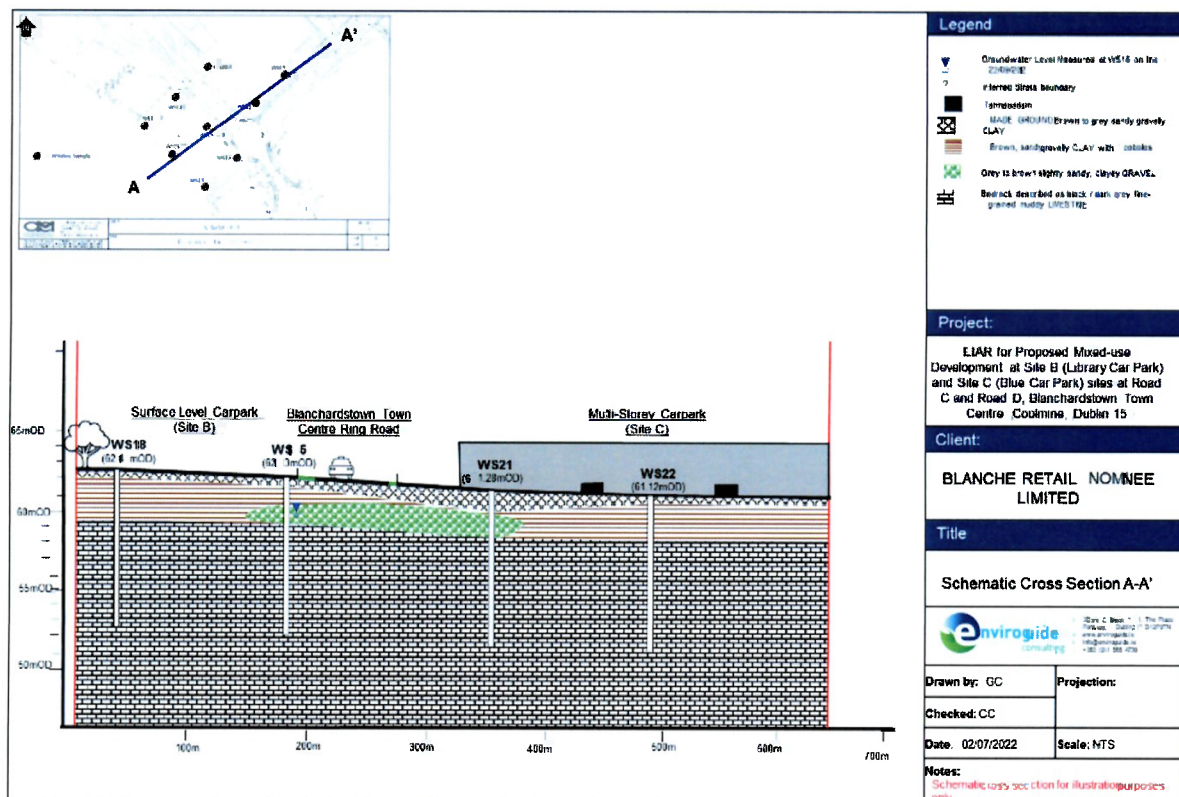


Figure 7-7: Schematic Cross Section



### 7.3.14 Aquifer Classification

The GSI provides a methodology for aquifer classification based on resource value (regionally important, locally important, and poor) and vulnerability (extreme, high, moderate, or low). Resource value refers to the scale and production potential of the aquifer whilst vulnerability refers to the ease with which groundwater may be contaminated by human activities (vulnerability classification primarily based on the permeability and thickness of subsoils).

The GSI (GSI, 2022) has classified the bedrock of the Lucan Formation beneath the Proposed Development Site and surrounding area as a Locally Important Aquifer (LI) (i.e. bedrock which is moderately productive only in Local Zones).

It is noted that there are no gravel aquifers mapped within a 2.0km radius of the Proposed Development Site (GSI, 2022).

The bedrock aquifer map is presented in Figure 7-8.

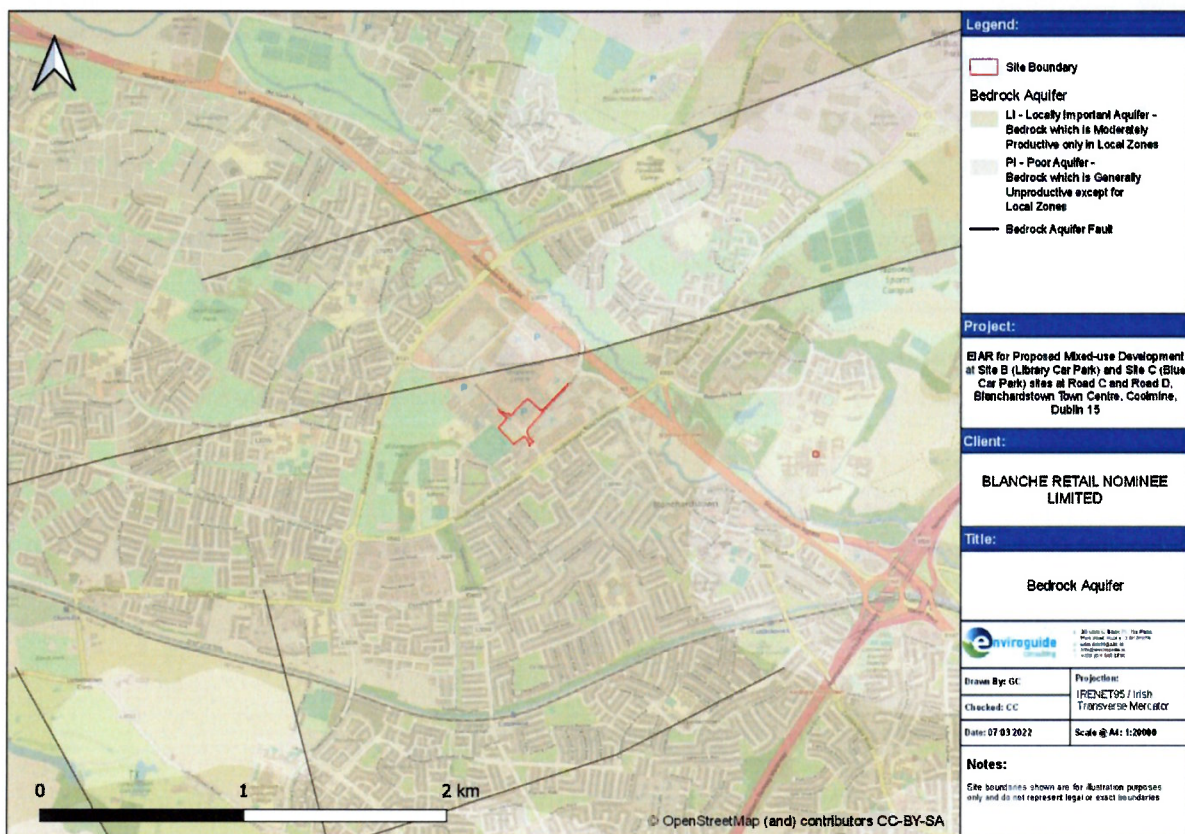


Figure 7-8. Bedrock Aquifer

### 7.3.15 Aquifer Vulnerability Rating

The vulnerability categories, and methods for determination, are presented in the Groundwater Protection Schemes publication (DEHLG/EPA/GSI, 1999). The guidelines state that *'as all groundwater is hydrologically connected to the land surface, it is the effectiveness of this connection that determines the relative vulnerability to contamination. Groundwater that readily and quickly receives water (and contaminants) from the land surface is considered to*

*be more vulnerable than groundwater that receives water (and contaminants) more slowly and in lower quantities. The travel time, attenuation capacity and quantity of contaminants are a function of the following natural geological and hydrogeological attributes of any area:*

- *the subsoils that overlie the groundwater;*
- *the type of recharge - whether point or diffuse; and*
- *the thickness of the unsaturated zone through which the contaminant moves’.*

Table 7-8: Vulnerability Mapping Criteria (DEHLG/EPA/GSI, 1999)

Subsoil Thickness	Hydrogeological Requirements				
	Diffuse Recharge			Point Recharge	Unsaturated Zone
	Subsoil Permeability & Type			(Swallow holes, losing streams)	(sand & gravel aquifers only)
	High permeability (sand & gravel)	Moderate permeability (sandy subsoil)	Low permeability (clayey subsoil, clay, peat)		
0-3m	Extreme	Extreme	Extreme	Extreme (30mrad us)	Extreme
3-5m	High	High	High	N/A	High
5-10m	High	High	Moderate	N/A	High
>10m	High	Moderate	Low	N/A	High
Notes: (i) N/A = not applicable (ii) Permeability classifications relate to the material characteristics as described by the subsoil description and classification method.					

The GSI have assigned a groundwater vulnerability rating of “High” (H) for the groundwater beneath the Proposed Development Site (GSI, 2022) indicating approximately 3m to 10m of overburden.

As documented in the site investigation report (IGSL Limited, September 2021) included in Appendix B, bedrock was encountered at depths below 2.5mbGL (TP/WS/RC20) and 3.9mbGL (TP/WS/RC19) with measured groundwater levels at depths of 2.0mbGL. Therefore, the vulnerability rating of can be considered to be locally high to extreme based on available data for the Proposed Development Site.

The GSI Groundwater Vulnerability Map is presented in Figure 7-9.



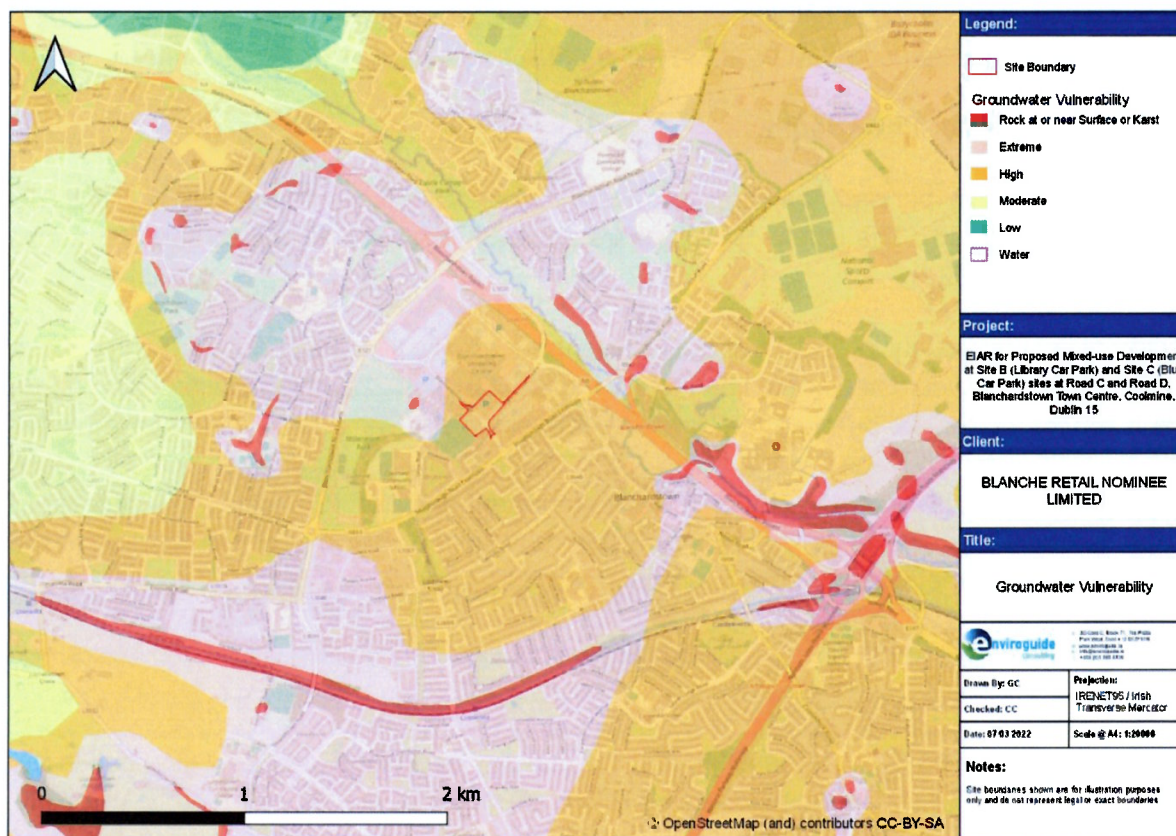


Figure 7-9: Groundwater Vulnerability

### 7.3.16 Recharge

The GSI groundwater recharge map provides an estimate of the average amount of rainwater that percolates down through the subsoils to the water table over a year. The map accounts for rainfall that percolates diffusely through soils and subsoils but does not take into account water that enters aquifers at points (e.g., at sinkholes) or along linear features (e.g., along sinking streams/rivers). Groundwater recharge amounts are estimated by considering soil drainage, subsoil permeability, thickness and type, the ability of the aquifer to accept the recharge, and rainfall.

As detailed in Section 7.3.6, the GSI (GSI, 2022) has calculated an ER value of 350.1mm/year across the Proposed Development Site. Taking account of the soil drainage, subsoil permeability, thickness and type, the ability of the aquifer to accept the recharge, and rainfall, the GSI (GSI, 2022) have identified a groundwater recharge coefficient of 20% of effective rainfall with a calculated average capped recharge of 70mm/year. The Proposed Development Site is underlain by a Locally Important Aquifer (LI) which is moderately productive only in Local Zones thereby indicating a limited capacity of the aquifer at the Proposed Development Site to accept recharge via infiltration of rainfall.

### 7.3.17 Groundwater Body and Status

The Proposed Development Site is located within the Dublin Groundwater Body (Dublin GWB) (EU Code:IE\_EA\_G\_008) (EPA, 2022). The groundwater body quality status for the Dublin GWB is classified by the EPA as having an overall 'good' water quality status for the period

2013-2018 and with a WFD risk status of 'review' for Cycle 2 (for the period of 2015 -2021) and Cycle 3 (for the period of 2021-2027) (EPA, 2022).

### **7.3.18 Groundwater Flow Regimes**

The bedrock aquifer beneath the Proposed Development Site is within the Dublin GWB (EU Code: IE\_EA\_G\_008). The Dublin GWB covers some 837km<sup>2</sup> and occupies an area across Co. Dublin (GSI, 2022).

Recharge in the vicinity of the Proposed Development Site is described as being diffuse through subsoil. As identified in Section 7.3.16, the GSI (GSI, 2022) have identified a recharge coefficient for the aquifer beneath the Proposed Development Site as 20% of effective rainfall with a calculated average capped recharge of 70mm/year given that the Proposed Development Site is underlain by a Locally Important Aquifer (LI) which is moderately productive only in Local Zones, thereby indicating a limited capacity of the aquifer at the Proposed Development Site to accept recharge via infiltration of rainfall.

The main discharge within the GWB is described as occurring to the over-lying rivers and streams.

The GSI (Dublin GWB Report) identifies that the majority of groundwater flow direction in the aquifer is towards the coast and towards the River Liffey and Dublin City (GSI, 2022). Locally, groundwater flow direction in the vicinity of the Proposed Development Site is assumed to be a reflection of local topography and may discharge to the River Tolka located 0.27km northeast and downgradient of the Proposed Development Site.

### **7.3.19 Groundwater Use and Source Protection**

The GSI groundwater wells and springs database (GSI, 2022) lists one (1No.) groundwater well (agricultural and domestic use) within a 2km radius of the Proposed Development Site.

The Proposed Development Site is located within an area serviced by mains water supply and there were no groundwater sources identified at the Proposed Development Site during the site walkover.

The location of the groundwater sources recorded by the GSI (GSI, 2022) in the vicinity of the Proposed Development Site is presented in Figure 7-10.

There are no Groundwater Source Protection Areas (SPAs) located within a 2km radius of the Proposed Development Site. The closest public water supply is the Dunboyne PWS which supplies for Dunboyne, Clonee and their surrounds. The Dunboyne PWS is located approximately 6.62km northwest of the Proposed Development Site. The Groundwater SPAs in the vicinity of the Proposed Development Site are also presented in Figure 7-10.



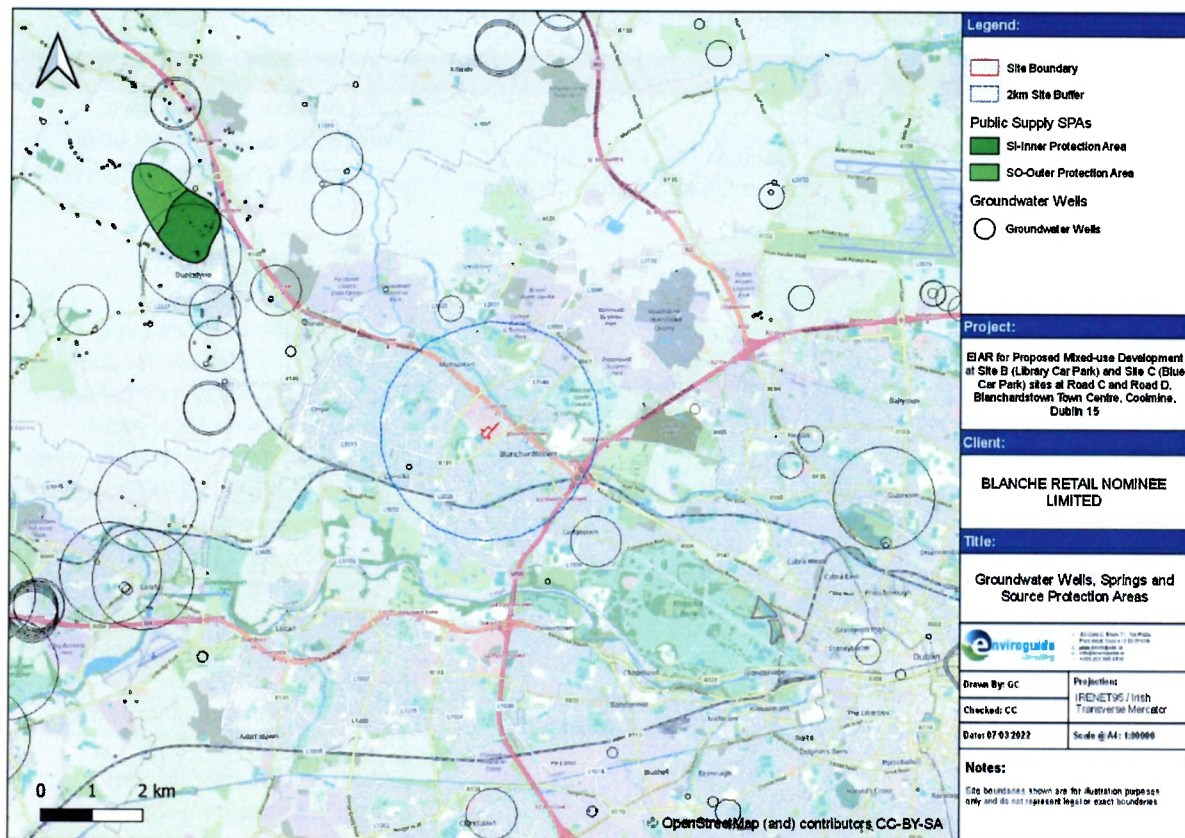


Figure 7-10: Groundwater Wells, Springs and Source Protection Areas

### 7.3.20 Importance of Hydrogeological Features

The National Roads Authority (NRA) criteria for estimation of the importance of hydrogeological features at the Proposed Development Site during the Environmental Impact Assessment (EIA) stage, as documented by IGI (IGI, 2013) are summarised in Table 7-9.

Table 7-9: Criteria for Rating Site Importance of Hydrogeological Features

Importance	Criteria	Typical Example
<b>Extremely High</b>	Attribute has a high quality or value on an international scale.	Groundwater supports river, wetland or surface water body ecosystem protected by European Union (EU) legislation e.g., SAC or SPA status.
<b>Very High</b>	Attribute has a high quality or value on a regional or national scale.	Regionally Important Aquifer with multiple wellfields. Groundwater supports river, wetland, or surface water body ecosystem protected by national legislation – e.g., NHA status. Regionally important potable water source supplying >2500 homes Inner source protection area for regionally important water source.
<b>High</b>	Attribute has a high quality or value on a local scale.	Regionally Important Aquifer Groundwater provides large proportion of baseflow to local rivers. Locally important potable water source supplying >1000 homes. Outer source protection area for regionally important water source. Inner source protection area for locally important water source.
<b>Medium</b>	Attribute has a medium quality or value on a local scale.	Locally Important Aquifer Potable water source supplying >50 homes. Outer source protection area for locally important water source.
<b>Low</b>	Attribute has a low quality or value on a local scale.	Poor Bedrock Aquifer. Potable water source supplying <50 homes.

In accordance with the criteria outlined in Table 7-9 and taking account of the receiving hydrogeological environment associated with the Proposed Development Site is considered to be of 'low' hydrogeological importance given that the Proposed Development Site is not mapped within a source protection area or in the vicinity of a significant groundwater or surface water supply source.

## 7.4 Characteristics of the Proposed Development

The Proposed Development comprises, six (6No.) 5-13 storey apartment buildings with ground floor commercial uses, alterations to the existing multi-storey carpark at Site C from four (4No.) to six (6No.) levels, provision of an undercroft car parking area at Site B, public open space, communal courtyards and external roof terraces, landscaping, public realm improvements and associated site and infrastructural works.

### 7.4.1 Construction Phase

All foundations are pad foundations on bedrock with no requirement for piling.

There is no basement and only foundations and services will be below ground level.

The Proposed Development will involve excavation of soil and bedrock during the Construction Phase to depths of up to 4.0mbGL for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works. It is estimated by DBFL Consulting Engineers that 1,000m<sup>3</sup> of asphalt surfacing, 9,700m<sup>3</sup> of soil and stone and 250m<sup>3</sup> of bedrock will be excavated during the construction of the Proposed Development.

Surplus soil and stone will be excavated and stockpiled in designated areas pending reuse or removal from the Proposed Development Site in accordance with appropriate statutory consents and approvals

It is anticipated that there will be a requirement for local groundwater dewatering from trench exactions during the construction of foundations and utility infrastructure (i.e., attenuation tank, storm / foul water drainage) at the Proposed Development Site. Any groundwater removed will be discharged into the public sewer in accordance with all statutory requirements and obligations.

There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground, drains or water courses during the Construction Phase of the Proposed Development.

There will be no instream works required for the construction of the Proposed Development.

The welfare facilities that will be installed for the Construction Phase will include a self-contained chemical toilet and a portacabin for canteen / site office.

Fuels will be stored on-site during the Construction Phase to facilitate the refuelling of construction plant and machinery.

Foul water drainage and water supply infrastructure will be designed and constructed in accordance with the IW Code of Practice for Wastewater Infrastructure (IW, 2020b) and IW Code of Practice for Water Infrastructure (IW, 2020b).

#### **7.4.2 Operational Phase**

The proposed surface water drainage for the Proposed Development Site has been divided into two (2No.) catchment areas as follows:

- Surface water runoff from the existing multistorey carpark in the north of the Proposed Development Site, including the proposed additional two (2No.) levels of carparking, will continue to be discharged to the existing surface water drainage network for the Blanchardstown Town Centre via the existing full retention fuel / oil separator.
- A new surface water drainage system for the Proposed Development will be constructed to collect runoff from all remaining impermeable surfaces, together with any additional runoff from landscaped areas that do not percolate to ground. The attenuated surface water will discharge to the existing surface water drainage network for the Blanchardstown Town Centre via full retention fuel / oil separators.

- The existing surface water drainage network for the Blanchardstown Town Centre will continue to discharge to the River Tolka located approximately 0.27km north of the Proposed Development Site.

The surface water drainage for the Proposed Development has been designed in accordance the Greater Dublin Strategic Drainage Strategy (GDSDS) as specified in the Infrastructure Design Report (DBFL Consulting Engineers, March 2022).

In accordance with the GDSDS guidelines surface water runoff will be attenuated to greenfield runoff rates via a series of attenuation tanks designed for a 1 in 100year storm event (+20% allowance for climate change) together with a vortex flow control device and discharged to the existing 525mm diameter surface water drain located along the Blanchardstown Town Centre Ring Road.

The surface water strategy for the Proposed Development will incorporate Sustainable Drainage Systems (SuDS) features to minimise the impact of the runoff on water quality and quantity and maximise the amenity and biodiversity opportunities within the Proposed Development Site. It is proposed to provide the following SuDS measures within the Proposed Development:

- Surface water runoff from apartment roofs will be attenuated via a green roof system (sedum blanket or equivalent) prior to being routed to the piped surface water drainage network;
- Surface water runoff from podium areas will be attenuated via a blue roof system (drainage reservoir / drainage board) prior to being routed to the piped surface water drainage network;
- Where feasible surface water runoff from the Proposed Development Site's internal street / footpath network will be directed to the proposed pipe network via a combination of permeable surfaces and tree pits (with overflows to conventional road gullies) or other SUDS features such as bio-retention areas / rain gardens;
- Surface water runoff from in curtilage parking spaces (east of Site B) will be captured by permeable paving designed to provide additional attenuation and allows infiltration to ground;
- In limited instances, surface water runoff from paved areas will be directed to the proposed pipe network via conventional road gullies;
- Surface water runoff from the undercroft carparking in the southern portion of the Proposed Development Site (Site B) will discharge to the proposed foul drainage network via a full retention fuel / oil separator; and
- Surface water runoff from remaining soft landscaped / grassed areas will discharge to ground.

There will be no direct discharges to surface water during the Operational Phase of the Proposed Development.

The proposed surface water drainage for the Proposed Development Site is present in Figure 7-11 and Figure 7-12.



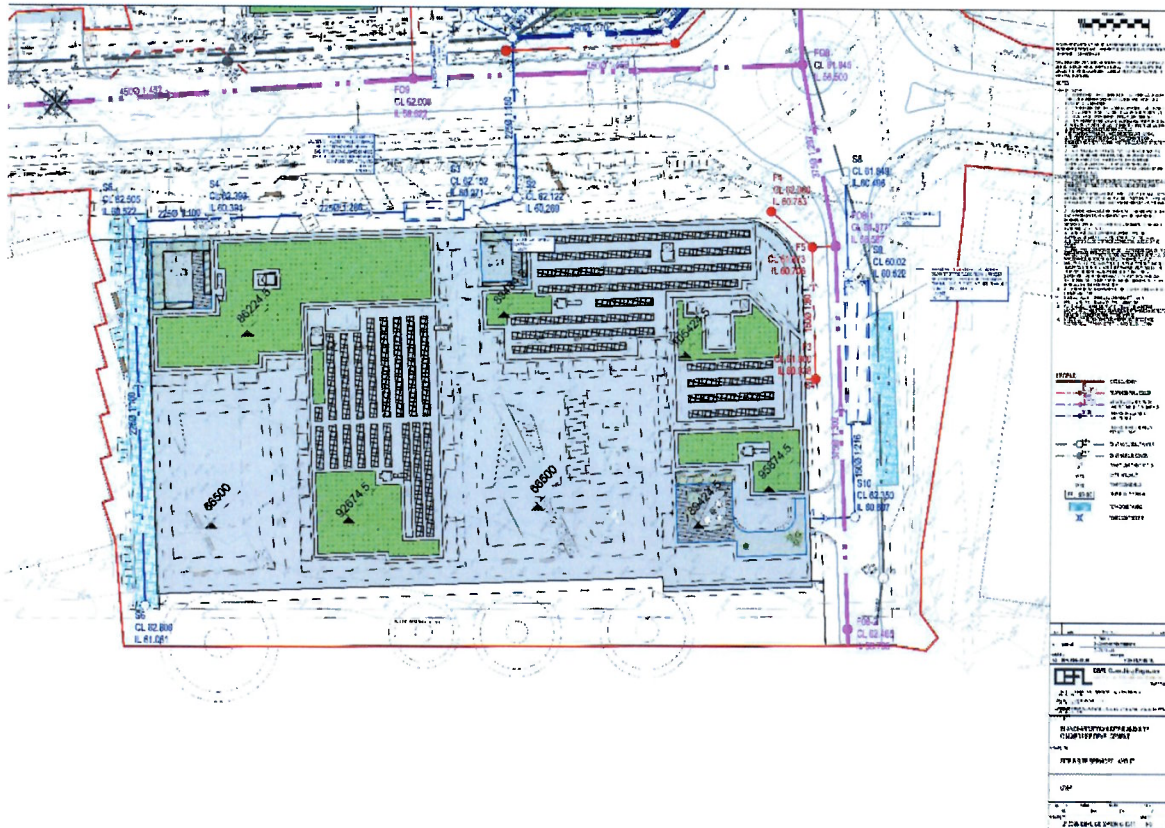


Figure 7-11: Site B Site Services Layout (DBFL Consulting Engineers, March 2022. Drawing No. 210048-DBFL-CS-SP-DR-C-1311 Site B Site Services Layout

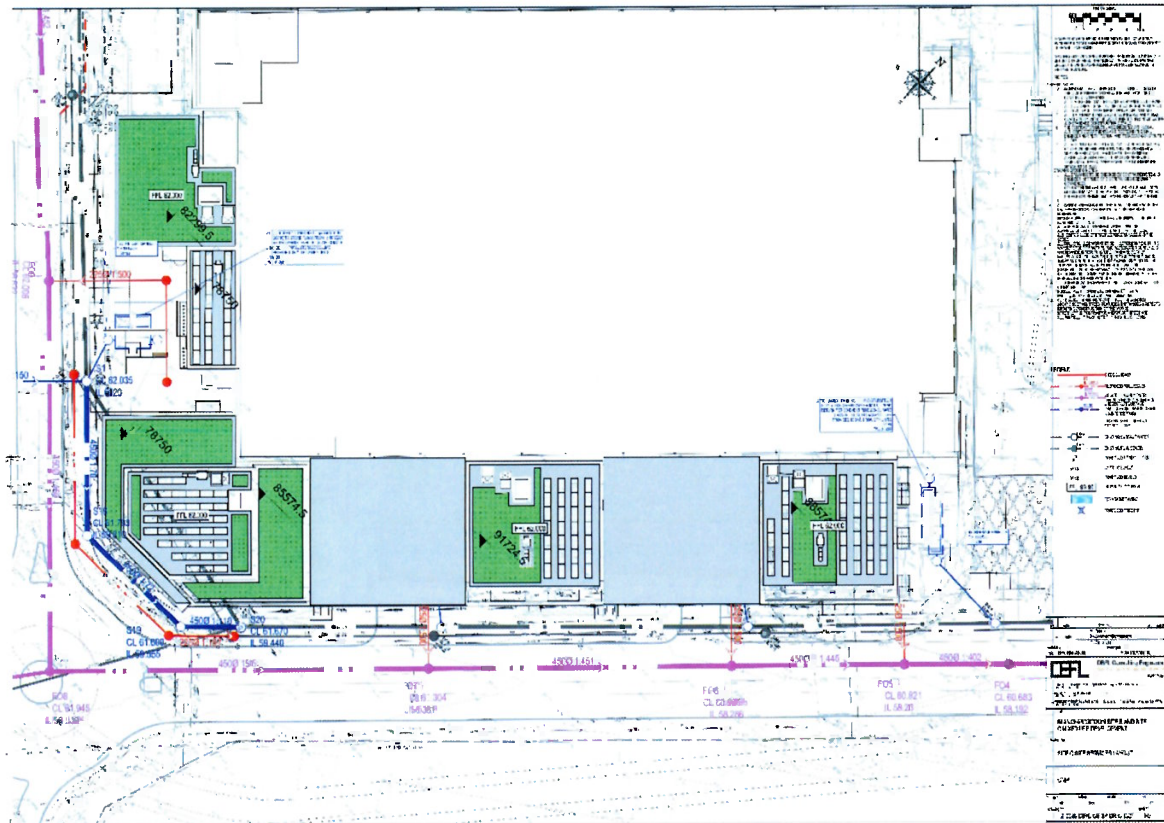


Figure 7-12: Site C Site Services Layout (210048-DBFL-CS-SP-DR-C-1321 Site C Site Services Layout)

The Infrastructure Design Report (DBFL Consulting Engineers, March 2022) has identified that the existing 225mm diameter private foul drainage network in the immediate vicinity of the site is at capacity. It is therefore proposed to construct a new foul drainage network to serve the Proposed Development (refer to Figure 7-11 and Figure 7-12) as well as facilitating potential future development in the vicinity of Blanchardstown Town Centre. Foul water from the Proposed Development will outfall via the new foul sewer network to the existing 450mm diameter foul sewer located to the northeast of the Proposed Development Site before discharging to the Irish Water (IW) 9C trunk sewer. As documented in the Infrastructure Design Report (DBFL Consulting Engineers, March 2022), a Pre-Connection Enquiry Form application (PCEA) was submitted to Irish Water and a confirmation of available service was received from IW in October 2021 (Reference No. CDS21003456) noting that a water connection is "feasible subject to upgrades". These upgrades relate to completion of the Blanchardstown Regional Drainage Scheme - 9C Duplication Project which comprises the installation of an additional duplicate sewer (from Parslickstown Bridge to the Tolka Valley Park Pumping Station), with the provision of a pumping station and underground storage tanks. IW have advised that this project is currently at construction stage and is scheduled for completion in Q3 2022.

Water supply to the Proposed Development will be provided from the existing Irish Water (IW) piped infrastructure adjacent to the Proposed Development Site along the Blanchardstown Centre Ring Road. As documented in the Infrastructure Design Report (DBFL Consulting Engineers, March 2022), a PCEA was submitted to IW and a confirmation of available service

was received from IW in October 2021 (Reference No. CDS21003456) noting that a water connection is “feasible without infrastructure upgrade”.

There will be no petroleum hydrocarbon-based fuels used during the Operational Phase and the main operating system for heating will be a combination of an air to water heat pump and mechanical heat recovery ventilation. Using such a system removes any potential contaminant sources associated with fuels.

There will be no abstraction of surface water or groundwater and no direct discharges to groundwater during the Operational Phase of the Proposed Development.

## **7.5 Potential Impact of the Proposed Development**

### **7.5.1 Construction Phase**

#### **7.5.1.1 Direct**

##### **Dewatering**

It is anticipated that groundwater will be encountered during trench excavations for the construction of foundations and utility infrastructure (i.e., attenuation tanks) at the Proposed Development Site. Excavation to depths of up to 4.0mbGL will intersect the measured groundwater level of approximately 2.0mbTOC (IGSL Limited, September 2021).

Where water is required to be pumped from the trench excavations, a submersible pump with hoses will be set up in the excavations to enable the shallow groundwater to be pumped from the excavation. It is considered that there will be temporary drawdown of local groundwater levels during the dewatering operations. However, the extent of the impact is considered to be localised to the immediate area surrounding the trench excavations. Temporary dewatering will be managed with cognisance to best practice standards (i.e. CIRIA – C750) to ensure the zone of influence of any necessary dewatering will be negligible to avoid any impact on the groundwater levels and groundwater flow regime. Therefore, the potential impact on the groundwater levels and groundwater flow regime associated with the Construction Phase of the Proposed Development will be ‘negative’, ‘slight’ and ‘temporary’.

##### **Use of Cementitious Materials**

There is a potential risk associated with the cementitious materials used during the construction of foundations, pavements and other structures impacting on the underlying groundwater at the Proposed Development Site. Overall, the use of cementitious material at the Proposed Development Site may result in a ‘negative’, ‘significant’ and ‘medium-term’ impact on the receiving water environment at the Proposed Development.

##### **Water Quality**

Surface runoff will be managed during construction and there will be no direct discharges to the existing surface water network at the Proposed Development Site.

Groundwater dewatering will be required during the excavation of trenches for building foundations and utility infrastructure. Any groundwater removed will be discharged into the



public sewer in accordance with the necessary consent/licence issued under Section 16 of the Local Government (Water Pollution) Acts and Regulations which will be obtained from Irish Water (IW) / Fingal County Council. There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground, drains or water courses during the Construction Phase of the Proposed Development. Therefore, as the necessary permits or authorisation for discharge of any water from the Proposed Development Site will be undertaken in accordance with Local Government (Water Pollution) Act 1977 (as amended) the potential impacts will have been adequately assessed and mitigated as part of the statutory consent and there will be 'neutral', 'imperceptible' and 'temporary' impact on the receiving water environment.

If the accidental release of hazardous material including fuels, chemicals and materials being used on-site, through the failure of secondary containment or a materials handling accident on the Proposed Development Site, were to occur over open ground then these materials could infiltrate to the underlying groundwater or enter shallow perched groundwater during excavations. In the event of such scenarios, it is considered that this could result in a 'negative', 'significant', 'long-term' impact on the receiving hydrogeological environment depending on the nature of the incident.

#### **7.5.1.2 Indirect**

There will be no indirect impacts associated with the Construction Phase of the Proposed Development.

#### **7.5.1.3 Secondary**

There will be no secondary impacts associated with the Construction Phase of the Proposed Development.

### **7.5.2 Operational Phase**

#### **7.5.2.1 Direct**

During the Operational Phase of the Proposed Development there is limited to zero potential for any adverse impact on the receiving water (hydrological and hydrogeological) environment at the Proposed Development Site taking account of the design for the Proposed Development.

### **Water Supply**

Water supply for the Operational Phase will be from the existing IW water supply infrastructure adjacent to the Proposed Development Site and will be operated in accordance with the appropriate statutory consents. A PCEA was submitted to IW and a confirmation of available service was received from IW in October 2021 (Reference No. CDS21003456) noting that a water connection is "feasible without infrastructure upgrade". Therefore, there will be a 'neutral', 'imperceptible' and 'long-term' impact on the water supply to the Proposed Development.

Water supply and demand is further assessed in Chapter 12 of this EIAR.



## Hydrogeological Regime

There will be no requirement for groundwater supply for the Operational Phase.

The majority of the existing Site is hard covered with impermeable paving and a multi-storey carpark. The Proposed Development will continue to be hard covered but will also incorporate soft landscaped / grassed areas where there will be infiltration to ground. While there may be a slight increase in infiltration to ground and local variations in the mechanism for groundwater recharge the overall regional groundwater flow regime will not be altered.

Building foundations and utility infrastructure (i.e., attenuation tanks) at the Proposed Development Site will intersect the measured groundwater level of approximately 2.0mbTOC (IGSL Limited, September 2021). However, given that building foundations and utility infrastructure will impede shallow groundwater flow through the aquifer within a very localised portion of the subsurface at the Proposed Development Site, it is considered that there will be a 'negative', 'imperceptible' and 'permanent' impact on regional groundwater levels and flow paths.

## Water Quality

There will be no risk to water quality associated with the Operational Phase of the Proposed Development.

There will be no petroleum hydrocarbon-based fuels used during the operational phase and the main operating system for heating will be a combination of an air to water heat pump and mechanical heat recovery ventilation, thereby removing any potential contaminant sources associated with fuels.

The proposed surface water management strategy incorporates a number of measures incorporated in the overall drainage design including green roofs / blue roofs, permeable paving, bioretention areas, road gullies draining via tree pits, Hydrobrake flow control device / associated attenuation storage and full retention fuel / oil separators that will contribute to treatment of water quality through removal of metal, hydrocarbon and suspended solids that may be entrained in surface water runoff at the Proposed Development Site. Therefore, it is considered that the design of the surface water management strategy for the Proposed Development through the implementation of SuDS features is in line with the objectives of the Water Framework Directive (2000/60/EC), the Fingal Development Plan 2017-2023, and the requirements of the GDSDS guidelines.

Overall, it is considered that the SuDS drainage scheme for the Proposed Development will result in an overall 'positive', 'slight' 'long-term' impact on receiving surface water quality.

## Flood Risk

As documented in the Site-Specific Flood Risk Assessment (DBFL Consulting Engineers, March 2022b) the Proposed Development Site is located within Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1%AEP or 1 in 1000) for both river and coastal flooding and is considered suitable for development.

The Infrastructure Design Report (DBFL Consulting Engineers, March 2022) notes that the surface water drainage at the Proposed Development has been designed in accordance with the principles of SuDS and satisfies the requirements of GDSDS to meet the following design criteria.

- Criterion 1 – River Water Quality Protection;
- Criterion 2 – River Regime Protection;
- Criterion 3 – Level of Service (Flooding) / Flood Risk Assessment; and
- Criterion 4 – River Flood Protection.

Therefore, overall, it is considered that the potential impact of flooding associated with the Proposed Development result in an overall 'neutral', 'imperceptible' 'long-term' impact on the Proposed Development and elsewhere.

### ***Foul Water***

Foul water from the Proposed Development will outfall via the new foul sewer network to the existing 450mm diameter foul sewer located to the northeast of the Proposed Development Site before discharging to the Irish Water (IW) 9C trunk sewer with agreement from IW. All below ground drainage infrastructure will be constructed in accordance with Irish Water Code of Practice for Wastewater Infrastructure (Irish Water, 2020b). Therefore, preventing any potential impact on the receiving groundwater as a result of leaking foul effluent to ground.

#### **7.5.2.2 Indirect**

### **Foul Water**

As documented in the Infrastructure Design Report (DBFL Consulting Engineers, March 2022), a confirmation of available service was received from IW in October 2021 (Reference No. CDS21003456) noting that a water connection is "feasible subject to upgrades". These upgrades relate to completion of the Blanchardstown Regional Drainage Scheme - 9C Duplication Project. IW have advised that this project is currently at construction stage and is scheduled for completion in Q3 2022. Therefore, on the basis that foul water from the Proposed Development will only be discharged to public sewer under agreement from Irish Water and other applicable statutory consents, it is considered that there will be a 'neutral', 'imperceptible' and 'permanent' impact on the receiving environment.

### **Surface Water Drainage**

Surface water runoff from the Proposed Development Site discharged to the River Tolka via the existing surface water drainage infrastructure serving the overall Blanchardstown Town Centre. Surface water from the Proposed Development Site will be managed via the proposed drainage network in accordance with SuDS and GDSDS requirements. The surface water management strategy includes a number of measures that will capture any potentially contaminating compounds (petroleum hydrocarbons, metals, and suspended sediments) in surface water runoff from roads and the impermeable areas. Therefore, it is considered that the design of the surface water management strategy for the Proposed Development through

the implementation of SuDS features will result in an overall 'neutral', 'imperceptible' 'long-term' impact on the receiving surface water quality or the River Tolka.

#### **7.5.2.3 Secondary**

There are no secondary impacts associated with the Operational Phase of the Proposed Development.

### **7.5.3 Potential Cumulative Impacts**

#### **Potential Cumulative Impacts**

Cumulative Impacts can be defined as *"impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project"*. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

#### **Existing Planning Permissions**

Table 7-10 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

Table 7-10 Potential Cumulative Impacts

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	Green Mall (Also known as the Central Mall) & Yellow Mall	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>“The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use.”</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>



FW18A/0168	Blue Mall	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	<p>Foul water from the Proposed Development will ultimately discharge to Ringsend Wastewater Treatment Plant (WWTP).</p> <p>The increase discharge to the Ringsend WWTP as a result of the Proposed Development is considered to be insignificant in terms of the overall scale of the facility.</p> <p>There are no other potential cumulative impacts associated with the Proposed Development.</p>
FW20A/0030 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>
FW20A/0018 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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<b>FW19A/0017</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>dac/145/19</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Cent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
<b>19/4224</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>



FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<b>FW18A/0116</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>“Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works.”</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
<b>18/4234</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>“Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified.”</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
<b>FW18A/0011</b>	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>“The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway ay”</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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## Water Supply

The Proposed Development will be connected to the existing water main serving the overall Blanchardstown Town Centre subject to agreement with Irish Water and will be operated in accordance with the appropriate statutory consents. Therefore, there will be no cumulative impacts associated with the Proposed Development.

## Foul Water Network

There will be no discharges to the public sewers during the Construction Phase.

During the Operational Phase of the Proposed Development, foul water from the Proposed Development will outfall via the new foul sewer network to the existing 450mm diameter foul sewer located to the northeast of the Proposed Development Site before discharging to the Irish Water (IW) 9C trunk sewer subject to agreement with IW and will be operated in accordance with the appropriate statutory consents.

Foul water from the Proposed Development will ultimately discharge to Ringsend Wastewater Treatment Plant (WWTP). As the proposed connection will be subject to approval from Irish Water and given that Ringsend WWTP operates under existing statutory consents, it is considered that there will be adequate capacity in the foul water network to accommodate the

increased load from the Proposed Development and there will be no cumulative impacts on the receiving water environment associated with discharges from the Proposed Development.

Furthermore, it is noted that the proposed Ringsend WWTP improvements and the proposed WWTP at Clonsaugh will in the future reduce the dependency on the Ringsend WWTP. The increase discharge to the Ringsend WWTP as a result of the Proposed Development is considered to be insignificant in terms of the overall scale of the facility. The increased load does not have the capacity to alter the effluent released from the WWTP to such an extent as to result in likely significant effects on its receiving waters (Dublin Bay). In addition, upgrade works are currently ongoing at Ringsend WWTP to increase the capacity of the facility from 1.6 million PE to 2.4 million PE. This plant upgrade will result in an overall reduction in the final effluent discharge of several parameters from the facility including BOD, suspended solids, ammonia, DIN and MRP (Irish Water, 2018). Therefore, the potential impacts on the foul water network and receiving water environment as a result of the Proposed Development in the absence of mitigation are negligible.

There are no other potential cumulative impacts associated with the Proposed Development.

#### **7.5.4 “Do Nothing” Impact**

In the ‘Do Nothing’ scenario it is considered that the Proposed Development did not proceed and the potential impact on the receiving hydrological and hydrogeological environment is considered.

If the Proposed Development did not proceed the Proposed Development Site will continue to be used as carparking for the Blanchardstown Town Centre and there will be no impact or change to the hydrological and hydrogeological regime at the Proposed Development Site.

### **7.6 Avoidance, Remedial & Mitigation Measures**

The measures outlined in this section of the report will ensure that there will be no significant impact on the receiving groundwater and surface water environment and associated receptors (e.g., Natura 2000 sites). Therefore, the Proposed Development will not have any impact on compliance with the EU Water Framework Directive, European Communities (Environmental Objectives) Surface Water Regulations, 2009 (SI 272 of 2009, as amended 2012 (SI No 327 of 2012), and the European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010), as amended 2012 (SI 149 of 2012) and 2016 (S.I. No. 366 of 2016) individually or in combination.

#### **7.6.1 Construction Phase**

A Construction Environmental Management Plan (CEMP) (DBFL Consulting Engineers, March 2022) and CDWMP (Enviroguide Consulting, March 2022) have been prepared as part of the planning application. The appointed Contractor will review and update the Construction Environmental Management Plan (CEMP), as necessary, to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).



The CEMP and CDWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

Mitigation measures will be adopted as part of the construction works on the Proposed Development Site. The measures will address the main activities of potential impact which include:

- Control and Management of Water and Surface Runoff;
- Management and control of works adjoining water courses and instream ;
- Management and control of imported soil and aggregates from off-site sources;
- Fuel and Chemical handling, transport, and storage; and
- Accidental release of contaminants – notify relevant statutory authorities.

As part of the overall construction methodology, sediment and water pollution control risks arising from construction-related surface water discharges will be considered. All works carried out as part of these infrastructure works will comply with all Statutory Legislation including the Local Government (Water Pollution) acts, 1977 and 1990 and the contractor will cooperate fully with the Environment Section of Fingal County Council in this regard.

### **Control and Management of Water and Surface Runoff**

There will be no discharges to groundwater or surface water during the Construction Phase.

Temporary dewatering will be managed through robust dewatering and water treatment methodologies in accordance with best practice standards (CIRIA – C750), the CEMP, CDWMP and regulatory consents. Any groundwater removed will be discharged into the public sewer in accordance with the necessary consent/licence issued under Section 16 of the Local Government (Water Pollution) Acts and Regulations which will be obtained from Irish Water (IW) / Fingal County Council.

There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground, drains or water courses during the Construction Phase of the Proposed Development and sandbagging of gullies may be required during specific works in the vicinity of existing Proposed Development Site drainage.

A monitoring programme will be implemented to ensure that water quality criteria set out in the discharge licence are achieved prior to discharging to the sewer. The monitoring programme will be designed by an appropriately qualified Environmental Consultant.

There may be a temporary increase in the exposure of the underlying groundwater during earthworks due to the temporary removal of hardstanding areas. Stormwater runoff will be prevented from entering open excavations with sandbags or other approved methods proposed by the Contractor.

A regular review of weather forecasts of heavy rainfall will be conducted, and a contingency plan will be prepared for before and after such events to minimise any potential nuisances. As the risk of the break-out of silt laden run-off is higher during these weather conditions, no work will be carried out during such periods where possible.

### **Stockpile Management:**

Where possible, stockpiling of soil and stone on-site will be avoided. However, in the event that stockpiling is required, stockpiled materials pending removal off-site or reuse on-site will be located in designated areas only and there will be no storage of materials within 10m of any surface water gullies. Where necessary, stockpiles will be surrounded with silt fencing to filter out any suspended solids from surface water arising from these materials.

### **Concrete Works**

The use of cementitious grout used during the Construction Phase of the Proposed Development will avoid any contamination of the receiving hydrogeological environment through the use of appropriate design and methods implemented by the appointed Contractor and in accordance with industry standards.

Pre-cast concrete will be used where technically feasible to meet the design requirements for the Proposed Development. Where cast-in-place concrete is required (i.e., building foundations), all work must be carried out in dry conditions and be effectively isolated from any groundwater.

All ready-mixed concrete will be delivered to the Proposed Development Site by truck. Concrete mixer trucks will not be permitted to wash out on-site with the exception of cleaning the chute into a container which will then be emptied into a skip for appropriate compliant removal off-site in accordance with all relevant waste management legislation.

### **Handling of Fuels and Hazardous Materials**

Any diesel, fuel or hydraulic oils stored on-site will be stored in bunded storage tanks in a dedicated bunded area at least 30m from watercourses. The bunded area will have a volume of at least 110% of the volume of the stored materials as per best practice guidelines (EPA, 2004 Storage and Transfer of Materials for Scheduled Activities and Enterprise Ireland, BPGCS005) and will be properly secured against unauthorised access or vandalism. There will be clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage.

Waste oils and hydraulic fluids will be collected in bunded containers and removed from the proposed development for disposal or recycling.

A procedure will be drawn up which will be adhered to during refuelling of on-site vehicles. This will include the following:

- All re-fuelling will take place in a designated impermeable area. In addition, oil absorbent materials will be kept on-site in close proximity to the re-fuelling area;
- Fuel will be delivered to plant on-site by dedicated tanker or in a delivery bowser dedicated to that purpose;
- All deliveries to on-site oil storage tanks will be supervised and records will be kept of delivery dates and volumes;
- In the case of a bowser, the driver or supervising foreman will check the delivery bowser daily for leakage;

- The driver will be issued with, and will carry at all times, absorbent sheets and granules to collect any spillages that may accidentally occur; and
- Where the nozzle of a fuel pump cannot be placed into the tank oil storage tank then a funnel will be used.

Strict supervision of contractors will be adhered to in order to ensure that all plant and equipment utilised on-site is in good working condition. Any equipment not meeting the required standard will not be permitted for use within the Proposed Development Site. Only emergency breakdown maintenance will be carried out on-site. Drip trays and spill kits will be available on-site to ensure that any spills from vehicles are contained and removed off-site.

There may also be the requirement for use of portable generators or similar fuel containing equipment during the Construction Phase of the Proposed Development, which will be placed on suitable drip trays. Regular monitoring of drip tray content will be undertaken to ensure sufficient capacity is maintained at all times.

### **Emergency Procedures**

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available on-site including in vehicles operating on-site. Construction staff will be familiar with emergency procedures for in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

- Any required emergency vehicle or equipment maintenance work will take place in a designated impermeable area within the Proposed Development Site;
- Emergency response procedures will be put in place, in the unlikely event of spillages of fuels or lubricants;
- Spill kits including oil absorbent material will be provided so that any spillage of fuels, lubricants or hydraulic oils will be immediately contained;
- In the event of a leak or spill from equipment in the instance of a mechanical breakdown during operation, any contaminated soil will be removed from the Proposed Development Site and compliantly disposed off-site. Residual soil will be tested to validate that all potentially contaminated material has been removed. This procedure will be undertaken in accordance with industry best practice procedures and standards;
- All construction works staff will be familiar with emergency procedures for in the event of accidental fuel spillages; and
- All construction works staff on-site will be fully trained on the use of equipment.

This procedure will be undertaken in accordance with industry best practice procedures and standards. These measures will ensure that there is minimal risk to the receiving hydrological and hydrogeological environment associated with the Construction Phase of the Proposed Development.

### **Welfare Facilities**

Portaloo's and/or containerised toilets and welfare units will be used to provide facilities for site personnel. All associated waste will be removed from Proposed Development Site by a licenced waste disposal contractor.

## Boreholes

Existing boreholes (i.e., TP/WS/RC16) that are no longer required at the Proposed Development Site will be decommissioned in accordance with the specifications outlined in EPA Advice Noted 14 (EPA, 2013). This will remove any potential direct conduit for contaminants to enter the groundwater directly.

### 7.6.2 Operational Phase

Ongoing regular operational monitoring and maintenance of drainage and the SuDS measures as specified in the Infrastructure Report (DBFL Consulting Engineers, March 2022) in accordance with CIRIA SuDS Manual C753 (AECOM, 2022b) will be incorporated into the overall management strategy for the Proposed Development.

There is no other requirement for mitigation measures for the Operational Phase of the Proposed Development

### 7.6.3 “Worst Case” Scenario

During the Construction Phase there is a potential risk of accidental release of untreated water containing suspended sediments during groundwater dewatering (e.g., a breakdown of the temporary treatment system) that could result in a ‘negative’, ‘moderate’ and ‘medium-term’ impact on the receiving hydrological environment. However, this is deemed to be an unlikely scenario.

During the Operational Phase of the Proposed Development, surface water runoff including runoff of deleterious material (i.e., fuels from vehicles on-site) will be directed to the stormwater drainage system and not to ground. In a ‘Worst Case’ scenario there is a potential risk of accidental release of untreated water via failure or rupture of the drainage system with potential impacts on the receiving water environment. It is considered that the potential risk of the release of untreated water will present a ‘negative’, ‘significant’ and ‘long-term’ impact on the receiving environment. However, this is deemed to be an unlikely scenario.

## 7.7 Residual Impacts

Residual Impacts are defined as ‘effects that are predicted to remain after all assessments and mitigation measures. They are the remaining ‘environmental costs’ of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts.

The predicted impacts of the Construction and Operational Phases are described in *Table 7-11* in terms of quality, significance, extent, likelihood, and duration. The relevant mitigation measures are detailed, and the residual impacts are determined which take account of the avoidance, remedial and mitigation measures.

There are no significant residual impacts on hydrology and hydrogeology anticipated regarding this Proposed Development.



Table 7-11: Summary of Residual Impacts

Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
Construction Phase								
Dewatering during trench excavations	Hydrogeological Regime	Temporary drawdown of local groundwater levels during dewatering required during the construction of building foundations and infrastructure (i.e., attenuation tanks). However, the extent of the impact is considered to be localised to the immediate area surrounding the trench excavations.	Negative	Slight	Temporary	Direct	Temporary dewatering will be managed through robust dewatering and water treatment methodologies in accordance with best practice standards (CIRIA – C750), the CEMP, CDWMP and regulatory consents.	Imperceptible
Use of cementitious materials.	Groundwater / Surface Water	Potential release of cementitious material during the construction of foundations, pavements, and other structures.	Negative	Significant	Medium Term	Direct	The design will incorporate the use of pre-cast concrete structures where appropriate. The Contractor will carry out works in accordance with industry standards.	Imperceptible
Dewatering during trench excavations	Surface Water Quality	Potential for release of sediment or other potentially contaminating compounds to public surface water / foul sewer during groundwater dewatering.	Negative	Moderate	Medium Term	Direct / Worst Case	Any groundwater removed will be discharged into the public sewer under consent/licence from IWW / Fingal County Council.	Imperceptible
Accidental release of deleterious materials including fuel	Groundwater / Surface Water	Potential (albeit low) for uncontrolled release of deleterious materials including fuels and other materials being used on-site,	Negative	Significant	Long Term	Direct / Worst Case	Refuelling of plant during the Construction Phase will only be carried in a designated impermeable area on-	Imperceptible

Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
Construction Phase								
and other materials being used on-site.		through the failure of secondary and tertiary containment or a materials handling accident.					site equipped with spillage kits. Any other diesel, fuel or hydraulic oils stored on-site or within fuel containing equipment will be stored in bunded storage tanks / drip trays.	
Operational Phase								
Water Supply from IW	Water Supply	Proposed Development will be from the existing IW water supply infrastructure and will be operated in accordance with the appropriate statutory consents	Neutral	Imperceptible	Long Term	Direct	None required.	Imperceptible
Building foundations and utility infrastructure	Hydrogeological Regime	Building foundations and utility infrastructure will impede shallow groundwater flow through the aquifer at the Proposed Development Site	Negative	Imperceptible	Permanent	Direct	None required.	Imperceptible
Surface Water Drainage and SuDS	Water Quality	Surface water drainage at the Proposed Development Site has been designed in accordance with SuDS and therefore it is anticipated that there will be an overall positive impact on water quality of groundwater and surface water.	Positive	Slight	Long-term	Direct	None required.	Positive

Activity	Attribute	Predicted Impact	Quality	Significance	Duration	Type	Mitigation	Residual Impact
Construction Phase								
Surface Water Drainage	Flood Risk and surface water regime	The Proposed Development is located in Flood Zone C where the probability of flooding from rivers and the sea is low (DBFL Consulting Engineers, March 2022b). Surface water drainage at the Proposed Development has been designed in accordance with the principles of SuDS and satisfies the requirements of GDSDS (DBFL Consulting Engineers, March 2022b).	Neutral	Imperceptible	Permanent	Direct	None required.	Imperceptible
Discharge to foul sewer	Mains Sewer and receiving water at Ringsend WWTP	Discharges to sewer will only be permitted where authorised by Irish Water.	Neutral	Imperceptible	Permanent	Indirect / Cumulative	None Required.	Imperceptible
Surface Water Drainage	Surface Water Quality	Surface water runoff from the Proposed Development Site will discharge to the River Tolka via the existing surface water drainage infrastructure serving the overall Blanchardstown Town Centre.	Neutral	Imperceptible	Permanent	Indirect	None required. The surface water management strategy includes a number of measures that will capture any potentially contaminating compounds (petroleum hydrocarbons, metals, and suspended sediments) in surface water runoff from roads and the impermeable areas.	Imperceptible

## **7.8 Monitoring**

### **7.8.1 Construction Phase**

During the Construction Phase of the Proposed Development the following monitoring measures will be considered:

- Inspections and monitoring will be undertaken during excavations, piling and other groundworks to ensure that measures that are protective of water quality are fully implemented and effective;
- Discharges to surface water / foul sewers will be monitored where required in accordance with statutory consents (i.e., discharge licence);
- Routine monitoring and inspections during refuelling, concrete works to ensure no impacts and compliance with avoidance, remedial and mitigation measures; and
- Materials management and waste audits will be carried out at regular intervals to monitor the following:
  - Management of soils on-site and for removal off-site;
  - Record keeping;
  - Traceability of all materials, surplus soil and other waste removed from the Proposed Development Site; and
  - Ensure records are maintained of material acceptance at the end destination.

### **7.8.2 Operational Phase**

Ongoing regular operational monitoring and maintenance of drainage and the SuDS measures will be undertaken throughout the lifetime of the Operational Phase of the Proposed Development.

## **7.9 Interactions**

### **7.9.1 Population and Human Health**

No public health issues associated with the water (hydrology and hydrogeology) conditions at the Proposed Development Site have been identified for the Construction Phase or Operational Phase of the Proposed Development.

Appropriate industry standard and health and safety legislative requirements will be implemented during the construction phase that will be protective of site workers.

It is noted that specific issues relating to Public Health associated with the Proposed Development are set out in Chapter 4 of this EIAR.

### **7.9.2 Material Assets - Water**

An assessment of the potential impact of the Proposed Development on the Material Assets including built services, infrastructure, traffic, and waste management has been set out in Chapter 13 of this EIAR. Any discharges to the public foul sewer and water supply to the Proposed Development will be under consent from Irish Water.



### **7.9.3 Land, Soil, Geology and Hydrogeology**

An assessment of the potential impact of the Proposed Development on the existing land, soils and geological environment during the Operational Phase of the Proposed Development is set out in Chapter 6 Land, Soil and Geology.

### **7.9.4 Biodiversity**

An assessment of the potential impacts of the Proposed Development on the Biodiversity of the Proposed Development Site, with emphasis on habitats, flora and fauna which may be impacted as a result of the Proposed Development are included in Chapter 5 of this EIAR. It also provides an assessment of the impacts of the Proposed Development on habitats and species, particularly those protected by national and international legislation or considered to be of particular conservation importance and proposes measures for the mitigation of these impacts.

## **7.10 Difficulties Encountered When Compiling**

There were no difficulties encountered when compiling the Hydrology and Hydrogeology Chapter of this EIAR.

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## 8 AIR QUALITY AND CLIMATE

### 8.1 Air Quality and Climate

#### 8.1.1 Introduction

This Chapter will describe and assess the potential impacts on air quality and climate associated with the Proposed Development at Blanchardstown Town Centre, Coolmine, Dublin 15.

Taking into account Ambient Air Quality Standards, the baseline air quality will be examined along with the potential for release of emissions to the atmosphere and associated effects prior to and following mitigation measures. This Chapter will also describe and assess the potential impacts on micro and macro-climate as a result of the Proposed Development. Attention will be focused on Ireland's obligations under the Kyoto Protocol in the context of the overall climatic impact of the presence and absence of the Proposed Development.

##### 8.1.1.1 Quality Assurance and Competence

This Chapter was completed by Aoife Grogan, an Environmental Consultant at Enviroguide Consulting who specialises in the area of Air Quality and Climate assessment and has provided technical input to a diverse range of EIAR projects in this context. Aoife holds an MSc. in Climate Change from Maynooth University where she has gained specialist knowledge and skills in the social and scientific aspects of this subject and a proficient understanding of national & international policy requirements. She has also completed two additional Professional and Advanced Diplomas in the areas of Geographic Information Science (TU Dublin) and Planning and Environmental Law (Kings Inns). Aoife is proficient in various modelling software programmes for the assessment of air quality, including the U.S. EPA approved AERMOD dispersion modelling software and the UK Design Manual for Roads and Bridges Screening Model (DMRB, UK Highways Agency 2007) (Version 1.03c).

##### 8.1.1.2 Ambient Air Quality Standards

For the protection of health and ecosystems, EU Directives apply air quality standards in Ireland and other EU member states for a range of pollutants. These rules include requirements for monitoring, assessment and management of ambient air quality. The first major instrument in tackling air pollution was the Air Quality Framework Directive 96/62/EC and its four daughter Directives, which prescribed standards for various pollutants:

- ❖ **1<sup>st</sup> Daughter Directive:** Sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, and lead
- ❖ **2<sup>nd</sup> Daughter Directive:** Carbon monoxide and benzene
- ❖ **3<sup>rd</sup> Daughter Directive:** Ozone
- ❖ **4<sup>th</sup> Daughter Directive:** Polycyclic aromatic hydrocarbons, arsenic, nickel, cadmium, and mercury in ambient air.

The Air Quality Framework Directive set out a number of objectives as follows;



- Implements an EU-wide system for setting and binding air quality objectives for specified pollutants to protect human health and the environment;
- Requires Member States to put systems in place for assessing the quality of ambient air in accordance with common assessment criteria;
- Requires Member States to maintain ambient air quality where it is good and improve it in other cases through plans and programmes of action;
- Lays down requirements for a system of gathering, reporting and publicising information inclusive of data to be reported to the European Commission and information to be circulated to the public.

Ambient air quality monitoring and assessment in Ireland is carried out in accordance with the requirements of the Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) which was published in May 2008. This Directive replaced the Air Quality Framework Directive and the first, second and third Daughter Directives. The CAFE Directive has been transposed into Irish legislation by the Air Quality Standards Regulations (S.I. No. 180 of 2011); replacing the Air Quality Standards Regulations (2002) and the Ozone in Ambient Air Regulations (2004). The CAFE Directive required EU member states to designate 'Zones' reflective of population density for the purpose of managing air quality. Four zones were defined in the Air Quality Standards Regulations (2011) and subsequently amended in 2013 to account for 2011 census population counts and to align with coal restricted areas in the 2012 Regulations (S.I. No. 326 of 2012).

The main areas defined in each zone are:

- ❖ **Zone A:** Dublin Conurbation
- ❖ **Zone B:** Cork Conurbation
- ❖ **Zone C:** Other cities and large towns comprising Limerick, Galway, Waterford, Drogheda, Dundalk, Bray, Navan, Ennis, Tralee, Kilkenny, Carlow, Naas, Sligo, Newbridge, Mullingar, Wexford, Letterkenny, Athlone, Celbridge, Clonmel, Balbriggan, Greystones, Leixlip and Portlaoise.
- ❖ **Zone D:** Rural Ireland, i.e., the remainder of the State excluding Zones A, B and C.

The Site of the Proposed Development is located in Blanchardstown Town Centre, Coolmine, Dublin 15 and falls under the 'Zone A' category based on the Environmental Protection Agency's (EPA) designation under the CAFE Directive.

The Cleaner Air for Europe (CAFE) Directive outlines certain limit or target values specified by the five published directives that apply limits to specific air pollutants. These limits, outlined in Table 8-1, will be referred to as part of the Proposed Development assessment with respect to air quality.

*Table 8-1: Limit Values of Cleaner Air for Europe (CAFE) Directive 2008/50/EC (Source: EPA, 2020)*

Pollutant	Limit Value Objective	Averaging Period	Limit Value $\mu\text{g}/\text{m}^3$	Limit Value ppb	Basis of Application of the Limit Value	Limit Value Attainment Date
SO <sub>2</sub>	Protection of Human Health	1 hour	350	132	Not to be exceeded more than 24 times in a calendar year	1 Jan 2005
SO <sub>2</sub>		24 hours	125	47	Not to be exceeded more than 3 times in a calendar year	1 Jan 2005
SO <sub>2</sub>	Protection of vegetation	Calendar year	20	7.5	Annual mean	19 July 2001
SO <sub>2</sub>		1 Oct to 31 Mar	20	7.5	Winter mean	19 July 2001
NO <sub>2</sub>	Protection of human health	1 hour	200	105	Not to be exceeded more than 18 times in a calendar year	1 Jan 2010
NO <sub>2</sub>		Calendar year	40	21	Annual mean	1 Jan 2010
NO + NO <sub>2</sub>	Protection of ecosystems	Calendar year	30	16	Annual mean	19 July 2001
PM <sub>10</sub>	Protection of human health	24 hours	50	-	Not to be exceeded more than 35 times in a calendar year	1 Jan 2005
PM <sub>10</sub>		Calendar year	40	-	Annual mean	1 Jan 2005
PM <sub>2.5</sub> - Stage 1		Calendar year	25	-	Annual mean	1 Jan 2015
PM <sub>2.5</sub> - Stage 2		Calendar year	20	-	Annual mean	1 Jan 2020
Lead		Calendar year	0.5	-	Annual mean	1 Jan 2005
Carbon Monoxide		8 hours	10,000	8,620	Not to be exceeded	1 Jan 2005
Benzene		Calendar year	5	1.5	Annual mean	1 Jan 2010

The Environmental Protection Agency (EPA) is the competent authority for the purpose of the CAFE Directive and is required to send an annual report to the Minister for Environment and the European Commission. The regulations further provide for the distribution of public information. This includes information on any exceedances of target values, the reasons for exceedances, the area(s) in which they occurred, and the relevant information regarding effects on human health and environmental impacts.

### **8.1.1.3 Climate Agreements**

Climate change is recognised as one of the most serious global environmental problems and arguably the greatest challenge facing humanity today. While natural variations in climate over time are normal, anthropogenic activities have interfered greatly with the global atmospheric system by emitting substantial amounts of greenhouse gases (GHGs). This has caused a discernible effect on our global climate system, with continued change expected due to current and predicted trends of GHG emissions. In Ireland this is demonstrated by rising sea levels, changes in the ecosystem, and extreme weather events.

In March 1994, the United Nations Framework Convention on Climate Change (UNFCCC) was established as an intergovernmental effort to tackle the challenges posed by climate change. The Convention membership is almost universal, with 197 countries having ratified. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices. This information is then utilised to launch national strategies and international agreements to address GHG emissions. Following the formation of the UNFCCC, two major international climate change agreements were adopted: The Kyoto Protocol, and the Paris Agreement.

In April 1994, Ireland ratified the United Nations Framework Convention on Climate Change (UNFCCC) and subsequently signed the Kyoto Protocol in 1997. The Kyoto Protocol is an international agreement linked to the UNFCCC which commits its parties to legally binding emission reduction targets. In order to ensure compliance with the protocol, the Intergovernmental Panel on Climate Change (IPCC) has outlined detailed guidelines on compiling National Greenhouse Gas Inventories. These are designed to estimate and report on national inventories of anthropogenic GHG emissions and removals. Under Article 4 of the Kyoto Protocol, Ireland agreed to limit the net anthropogenic growth of the six named GHGs to 13% above the 1990 level, spanning the period 2008 to 2012.

The second commitment period of the Kyoto Protocol, the Doha amendment, was adopted *in extremis* on the 8<sup>th</sup> of December 2012, to impose quantified emission limitation and reduction commitments (QELRCs) to Annex I (developed country) Parties during a commitment period from 2013 to 2020. 38 developed countries, inclusive of the EU and its 28 member states, are participating. Under the Doha amendment, participating countries have committed to an 18% reduction in emissions from 1990 levels. The EU has committed to reducing emissions in this period to 20% below 1990 levels. Ireland's QELRCs for the period 2013 to 2020 is 80% of its base year emissions. Ireland's compliance with the Doha amendment will be assessed based on the GHG inventory submission in 2022 for 1990-2020 data. As of October 2020, the Doha Amendment has received the required number of ratifications to enter force. Once in force, the emission reduction commitments of participating developed countries and economies in transition (EITs) become legally binding.

In December 2015, the Paris Climate Conference (COP21) took place and was an important milestone in terms of international climate change agreements. The Paris Agreement sets out a global action plan to put the world on track to mitigate dangerous climate change by setting a global warming limit not to exceed 2°C above pre-industrial levels, with efforts to limit this to 1.5°C. As a contribution to the objectives of the agreement, countries have submitted comprehensive national climate action plans (nationally determined contributions, NDCs).

Under this agreement, governments agreed to come together every 5 years to assess the collective progress towards the long-term goals and inform Parties in updating and enhancing their nationally determined contributions. Ireland will contribute to the Agreement through the NDC tabled by the EU on behalf of Member States in 2016, which commits to a 40% reduction in EU-wide emissions by 2030 compared to 1990. All Parties are required to submit new or updated NDCs in 2020.

The EU has set itself targets for reducing its GHG emissions progressively up to 2050, these are outlined in the 2020 climate and energy package and the 2030 climate and energy policy framework. These targets are defined to assist the EU in transitioning to a low-carbon economy, as detailed in the 2050 low carbon roadmap. The 2020 package is a set of binding legislation to ensure that the EU meets its climate and energy targets for the year 2020. There are three key targets outlined in the package which were set by the EU in 2007 and enacted in legislation in 2009:

- 20% reduction in GHG emissions from 1990 levels.
- 20% of EU energy to be from renewable sources.
- 20% improvement in energy efficiency.

The 2030 climate and energy framework builds on the 2020 climate energy package and was adopted by EU leaders in October 2014. The framework sets three key targets for the year 2030:

- At least 40% cuts in GHG emissions from 1990 levels;
- At least 32% share for renewable energy;
- At least 32.5% improvement in energy efficiency.

The EU has acted in several areas in order to meet these targets, including the introduction of the Emissions Trading System (ETS). The ETS is the key tool used by the EU in cutting GHG emissions from large-scale facilities in the power, industrial, and aviation sectors. Around 45% of the EU's GHG emissions are covered by the ETS. The 2020 target for total GHG emissions from these sectors is set at 21% below 2005 levels.

The Irish Government recently published its Climate Action Plan (2021) which provides a detailed framework for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. The Plan lists the actions needed to deliver on national climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, including in 2022, to ensure alignment with Ireland's legally binding economy-wide carbon budgets and sectoral ceilings.

Ireland's latest greenhouse gas (GHG) emissions 1990-2020 are provisional figures based on the SEAI's final energy balance released in September 2021 (EPA, 2021). In 2020, Ireland's GHG emissions are estimated to be 57.70 million tonnes carbon dioxide equivalent (Mt CO<sub>2</sub>eq), which is 3.6% lower (or 2.14 Mt CO<sub>2</sub> eq) than emissions in 2019 (59.84 Mt CO<sub>2</sub> eq). There was a decrease of 4.0% in emissions reported for 2019 compared to 2018. Emissions reductions have been recorded in six of the last ten years of inventory data (2010-2020). In 2020, national total emissions decreased by 3.6%, emissions in the stationary ETS sector decreased by 6.4% and emissions under the ESD (Effort Sharing Decision) decreased by



2.7%. In 2020, the energy industries, transport and agriculture sectors accounted for 70.1% of total GHG emissions. Agriculture is the single largest contributor to the overall emissions, at 37.1%. Transport, energy industries and the residential sector are the next largest contributors, at 17.9%, 15.0% and 12.3%, respectively (EPA, 2021).

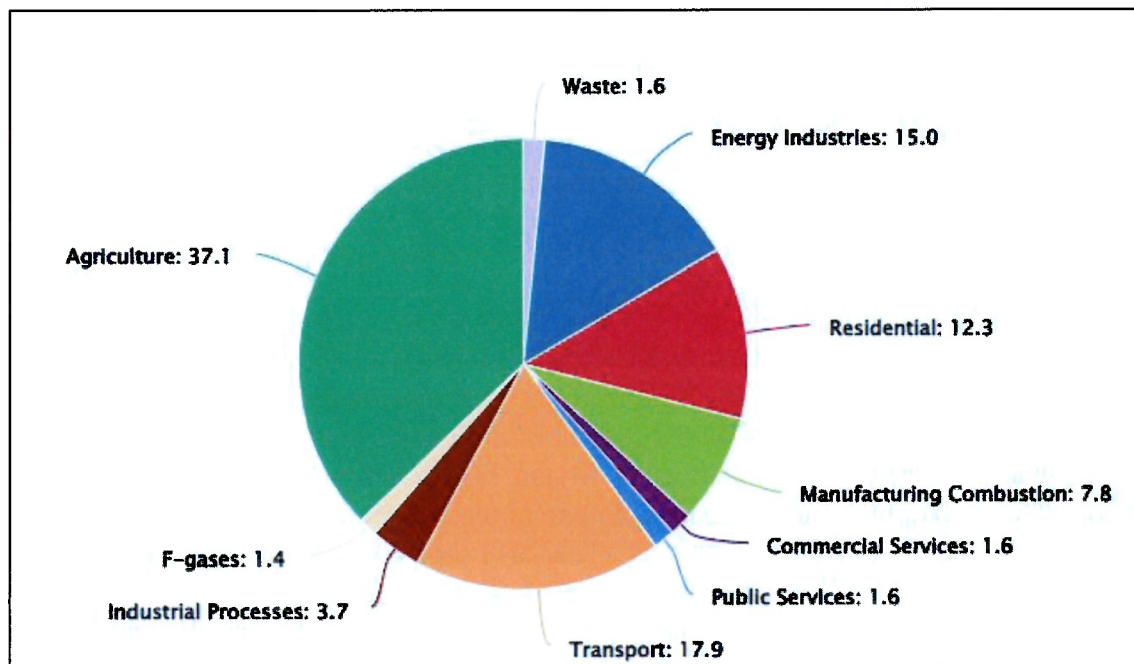


Figure 8-1: Ireland's Greenhouse Gas Emissions by Sector for 2020 (Source: EPA, 2021)

#### 8.1.1.3.1 National Policy Position in Ireland

National climate policy in Ireland recognises the threat of climate change to humanity and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future. A fundamental national objective aims to achieve transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050. The evolution of climate policy in Ireland will be an iterative process which is based on the adoption of a series of national plans by the Government over the period to 2050. The National Policy Position envisages that policy development will be guided by a long-term vision based on:

- An aggregate reduction in carbon dioxide (CO<sub>2</sub>) emissions of at least 80%, compared to 1990 levels, by 2050 across the electricity generation, built environment, and transport sectors;
- An approach to carbon neutrality in the agriculture and land-use sector, including forestry, which will not compromise the capacity for sustainable food production.

Parallel national plans will address greenhouse gas mitigation, and adaptation to climate change impacts, in the form of National Low-Carbon Roadmaps and National Climate Change Adaptation Frameworks. The enactment of the Climate Action and Low-Carbon Development Act (2015) was considered to be a national milestone in the evolution of climate policy in Ireland. The 2015 Act provides the statutory basis for the national transition objective laid out in the national policy position (DCCA, 2020); it provides the legislative framework for the

development and submission to Government for approval of national mitigation plans and national adaptation frameworks.

The first National Mitigation Plan (2017) signified the initial step to set Ireland on a pathway to achieve the level of decarbonisation required. The Plan begins the process of development of medium to long term mitigation choices for the next and future decades. Additionally, the National Adaptation Framework (2018) articulates a strategic policy context for appropriate action at sectoral and local level, in response to the impacts of climate change in Ireland in the shorter and longer term. It exists to inform and mobilise an integrated approach, involving all stakeholders on all institutional levels, to ensure that adaptation measures are taken and implemented.

### **8.1.2 Study Methodology**

Taking into account Ambient Air Quality Standards, the baseline air quality of the Site will be examined using EPA monitoring data. Air quality impacts from the Proposed Development will then be determined by a qualitative assessment of the nature and scale of dust generating activities associated with the Construction Phase of the project and potential vehicular emissions associated with the Operational Phase of the Project in accordance with relevant guidance (Transport Infrastructure Ireland (TII) 2011 Appendix 8; Institute of Air Quality Management (IAQM) 2014); DMRB, UK Highways Agency 2007; EPA; UK DEFRA; IAQM 2017).

A desktop study involving various national and international documents on climate change and analysis of synoptic meteorological data from the nearest Met Eireann station was also carried out in order to compile this chapter. Attention will be focused on Ireland's obligations under the Kyoto Protocol and the Doha Amendment in the context of the overall climatic impact of the presence and absence of the Proposed Development.

### **8.1.3 The Existing and Receiving Environment (Baseline Situation)**

Blanche Retail Nominee Limited intend to apply to Fingal County Council for permission for a mixed-use development at Blanchardstown Town Centre. Blanchardstown Town Centre is located approximately 10km north-west of Dublin City Centre and approximately 1km north of the village of Blanchardstown. The Site of the Proposed Development, with an area of 2.55 ha, incorporates the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the southeast of the Blanchardstown Centre, a section of Road C and Road D and the associated roundabout junction, verges and footpaths.

#### **8.1.3.1 Air Quality**

According to the 2012 Regulations (S.I. No. 326 of 2012) the proposed Site falls into 'Zone A' of Ireland which is described by the EPA as 'Dublin Conurbation'. It is expected that existing ambient air quality in the vicinity of the site is characteristic of a suburban location with the primary source of air emissions such as particulate matter, NO<sub>2</sub>, and hydrocarbons likely to be of traffic, aviation, industrial activities, combustion and agriculture, and domestic fuel burning.

In conjunction with individual local authorities, the EPA undertakes ambient air quality monitoring at specific locations throughout the country in the urban and rural environment; an

Air Quality Report based on data from 30 monitoring stations and a number of mobile air quality units is developed on an annual basis. The EPA's most recent publication 'Air Quality in Ireland, 2020' reports the quality of the air in Ireland based on the data from the National Ambient Air Quality Monitoring Network throughout the year 2020.

The Blanchardstown Air Monitoring Station is in closest proximity to the Site (ca. 1.5km) and has been classified as a 'Suburban Background' station type. This station continuously monitors for concentrations of nitrogen oxides (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>).

Annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> for the years 2018-2020 are presented in Table 8-2 for the automatic station at Blanchardstown. For both parameters, annual limits are well below the threshold limits contained within the regulations and have decreased in 2020 compared to previous years.

During 2020, the restriction of movement in Ireland due to the COVID-19 Pandemic had an impact on air quality nationally with a large-scale reduction in vehicular traffic. It is noted that the decrease in NO<sub>2</sub> levels during that year is a direct result of the restrictions placed on movements and construction due to COVID-19.

*Table 8-2: Mean Concentrations of PM<sub>10</sub> and NO<sub>2</sub> at Blanchardstown Monitoring Station*

Objective	Averaging Pe- riod	Limit or Threshold Value ( $\mu\text{g}/\text{m}^3$ )	Annual Mean ( $\mu\text{g}/\text{m}^3$ )	No. of Allowed Ex- ceedances (AQS, 2011)	Number of Short- term exceedances
<b>2018</b>					
<b>PM<sub>10</sub></b>	Calendar year	40	17	50 $\mu\text{g}/\text{m}^3$ not to be ex- ceeded on more than 35 days per year	2
<b>NO<sub>2</sub></b>	Calendar year	40	25	1-hour >200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times in a calendar year	0
<b>2019</b>					
<b>PM<sub>10</sub></b>	Calendar year	40	19	50 $\mu\text{g}/\text{m}^3$ not to be ex- ceeded on more than 35 days per year	11
<b>NO<sub>2</sub></b>	Calendar year	40	31	1-hour >200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times in a calendar year	0
<b>2020*</b>					
<b>PM<sub>10</sub></b>	Calendar year	40	15	50 $\mu\text{g}/\text{m}^3$ not to be ex- ceeded on more than 35 days per year	2
<b>NO<sub>2</sub></b>	Calendar year	40	12	1-hour >200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times in a calendar year	0

### 8.1.3.2 Macroeclimate

Ireland has a typical maritime climate, largely due to its proximity to the Atlantic Ocean and the presence of the Gulf Stream. Due to the moderating effects of the Gulf Stream, Ireland does not suffer the temperature extremes that are experienced by many other countries at a similar latitude. Mean annual temperatures generally range between 9°C and 10°C. Winters tend to be cool and windy while summers are mostly mild and less windy. The prevailing wind direction is between the south and west with average annual wind speeds ranging between 6 knots in parts of south Leinster to over 15 knots in the extreme north. Rainfall in Ireland occurs throughout the year with reasonable frequency. The highest rainfall occurs in the western half of the country and on high ground, and generally decreases towards the northeast. As the prevailing winds are from the west-southwest, the west of Ireland experiences the largest number of wet days. The area of least precipitation is along the eastern seaboard of the country.



### 8.1.3.3 Microclimate

The synoptic meteorological station at Dublin Airport is located approximately 10km northeast of the Proposed Development; and for the purposes of this chapter, weather data collected here may be considered similar to that which is experienced in the area of the subject Site.

The weather in the area of the subject site is generally dominated by cool oceanic air masses, with cool winters, mild humid summers, and a lack of temperature extremes. Based on meteorological data at Dublin Airport over the last 3 years, the mean January temperature is 5.3°C, while the mean July temperature is 15.4°C. The prevailing wind direction is from a quadrant centred on the southwest. These are moderately warm winds from the Atlantic and they habitually bring rain. The expected annual rainfall for the eastern half of the country ranges between 750 and 1000mm. Easterly winds are less frequent, weaker, and tend to bring cooler weather from the northeast in spring and warmer weather from the southeast in summer.

#### 8.1.3.3.1 Rainfall

Rainfall is a key indicator of changes in climate, as measurements of rainfall are fundamental to assessing the effects of climate change on the water cycle and water balance. *Table 8-3* illustrates the monthly and annual rainfall data collected over a 3-year period (2018-2020) at Dublin Airport Weather Station. The annual rates of precipitation ranged from 709.4mm in 2018 to 886.1mm in 2019 with distribution of the highest monthly rainfall values falling mainly in the autumn and winter months. This is broadly within the expected range of the eastern half of the country.

*Table 8-3: Monthly Rainfall Values (mm) for Dublin Airport Weather Station from January 2018 to December 2020 (Source: Met Eireann)*

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>2020</b>	36.0	130.4	31.8	12.8	9.3	69.6	98.9	87.3	60.9	80.6	48.1	83.1	<b>748.8</b>
<b>2019</b>	26.8	30.5	92.5	74.6	33.4	82.9	41.0	91.9	104.6	77.2	173.0	57.7	<b>886.1</b>
<b>2018</b>	93.1	36.9	100.0	68.9	19.1	4.8	40.0	48.0	43.8	42.6	131.2	81.0	<b>709.4</b>
<b>LTA<sup>5</sup></b>	62.6	48.8	52.6	54.1	59.5	66.7	56.2	73.3	59.5	79.0	72.9	72.7	757.9

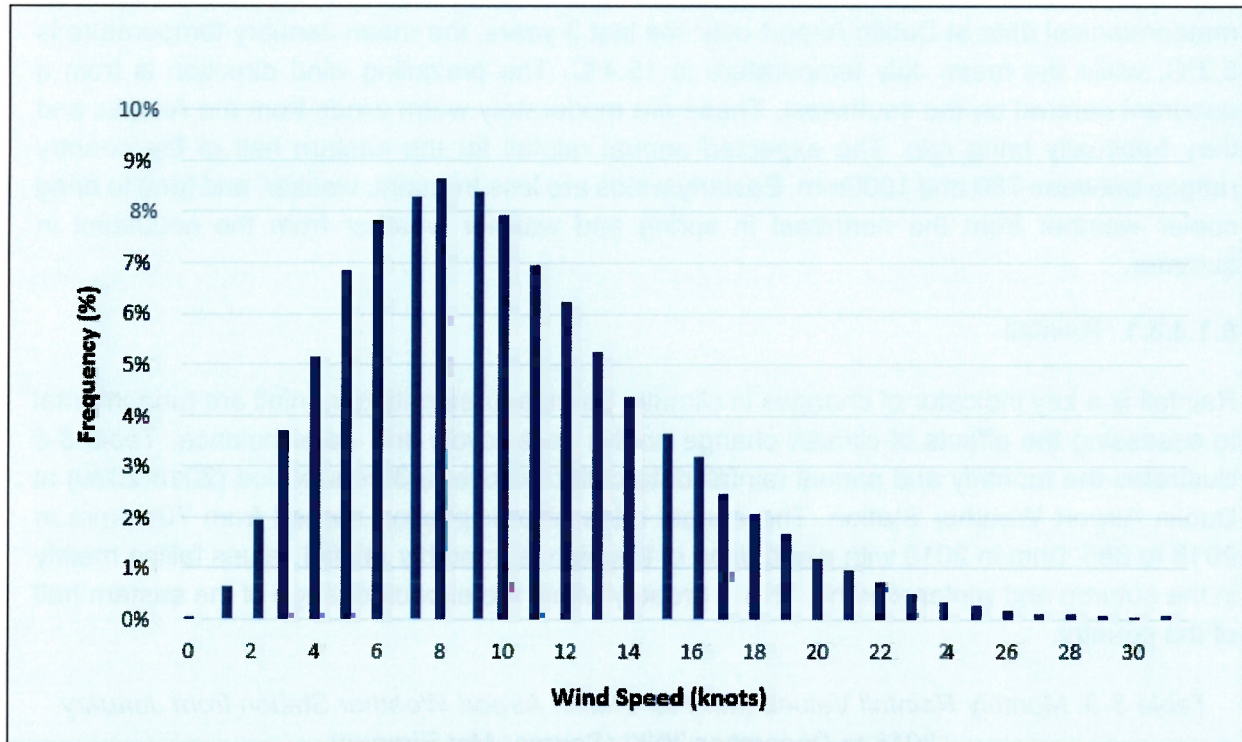
#### 8.1.3.3.2 Wind

Wind at a particular location can be influenced by a number of factors, such as obstructions by trees or buildings, the nature of the terrain, and deflection by nearby mountains or hills. Wind blows most frequently from the south and west for open sites while winds from the northeast and north occur less often. The analysis of hourly weather data from Dublin Airport synoptic weather station over a period of 5 years suggests that the predominant wind direction

<sup>5</sup> The 'LTA' is average for the climatological long-term-average (LTA) reference period 1981-2010.

blows from the southwest, with windspeeds of between 7 and 10 knots occurring most frequently.

Figure 8-2 provides a wind speed frequency distribution which represents wind speed classes and the frequency at which they occur (% of time) at Dublin Airport weather station over a period of 5 years. Wind speeds of 8 knots have the highest frequency, occurring approximately 8.6% of the time.



*Figure 8-2: Wind Speed Frequency Distribution at Dublin Airport Synoptic Weather Station over 5 years (2016-2020)*

Figure 8-3 provides a wind rose of the predominant wind directions and associated wind speeds at Dublin Airport. As is visible from Figure 8-3, the prevailing wind is from a south-westerly direction with an annual incidence of 33% for winds between 200 and 250 degrees. The most frequent wind speed associated with this wind direction is between 11 and 16 knots which is considered a 'moderate breeze' in terms of the Beaufort scale, this wind direction and wind speed occurs in combination approximately 11.39% of the time. The overall most common windspeed is between 7 and 10 knots, occurring in 33.28% of incidences, and wind speeds of between 11 and 16 knots occurring in 29.63% of incidences.

The lowest frequency is for winds blowing from the northern quadrant at approximately 2.81% of the time. The incidence of wind between 1 and 6 knots is about 26.16% of the year with wind speeds of above 17 knots (8.7 m/s) occurring in just 10.92% of incidences. The influence of topography can be seen in the low frequency of winds from a southerly direction at Dublin Airport, which occur at 4.24% of the year; this is due to the sheltering effect of the mountains to the south. This windrose is broadly representative of the prevailing conditions experienced at the subject Site.

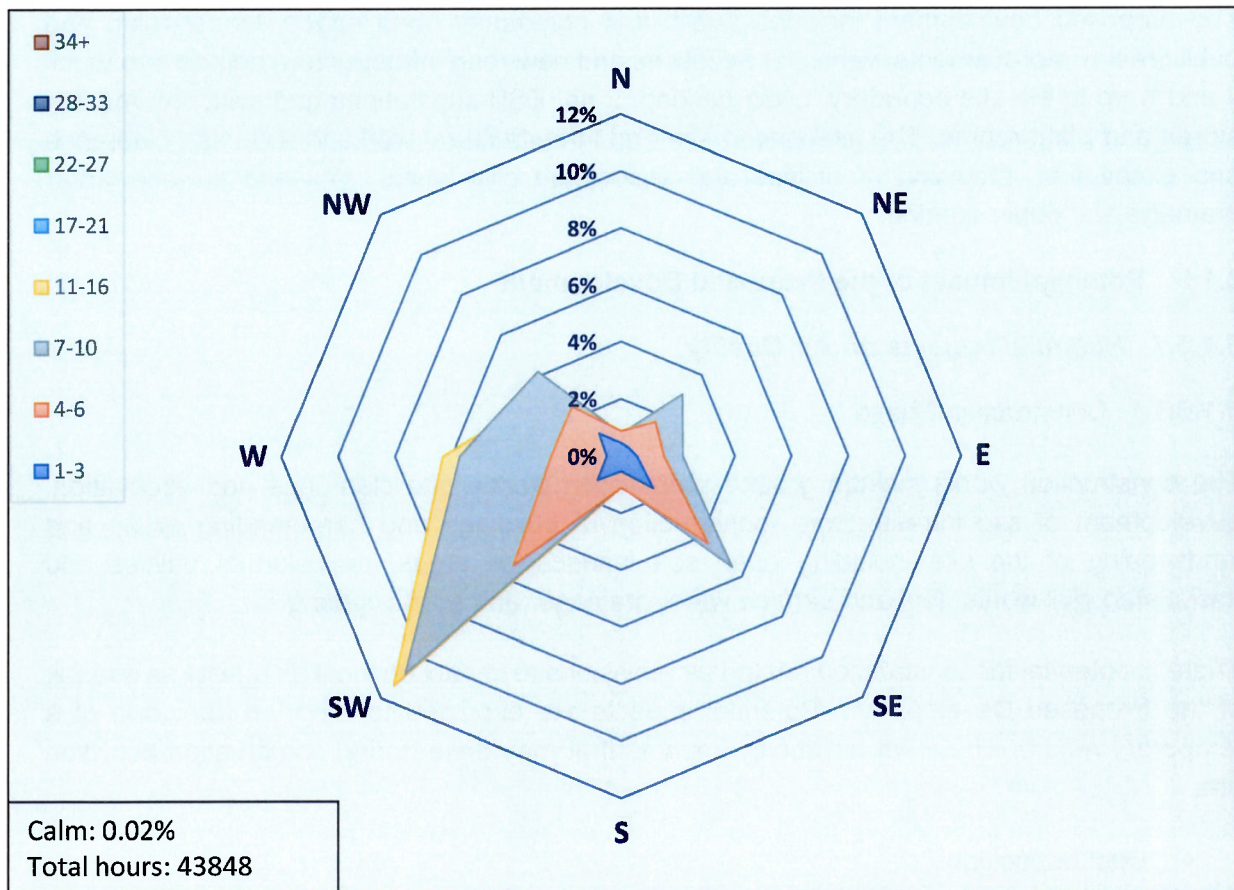


Figure 8-3: 5-year Windrose at Dublin Airport Synoptic Weather Station 2016-2020  
(Developed using Met Eireann Hourly Data)

#### 8.1.4 Characteristics of the Proposed Development

The Proposed Development consists of 6 no. apartment buildings (A, B, C, D, J and K), with ground floor commercial uses, ranging from 5 to 13 no. storeys in height and extension, including associated alterations of the existing multi storey car park (the Blue Car Park) from 4 no. levels to 6 no. levels.

Apartment Blocks J and K are proposed on the Library Car Park site (Site B) and Apartment Blocks A, B, C and D are located on the Blue Car Park site (Site C). The development includes a total of 352 no. apartments (comprising 43 no. studios, 134 no. 1 bed apartments, 154 no. 2 bed apartments, and 21 no. 3 bed apartments), resident amenity space and 6 no. retail / commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11 Gym or Restaurant / Café use, including ancillary takeaway use).

The construction of 2 no. additional levels on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the apartments within Blocks A, B, C and D. Car parking is also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.



The proposed development includes public and communal open space, landscaping and public realm improvements, vehicular accesses and new road infrastructure adjacent to Block J and K up to the site boundary, cycle parking, 2 no. ESB substations and switchrooms, bin stores and plant rooms. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting.

### **8.1.5 Potential Impact of the Proposed Development**

#### **8.1.5.1 Potential Impacts on Air Quality**

##### **8.1.5.1.1 Construction Phase**

The construction works include ground preparation works, site clearance and excavation, development of site infrastructure, construction of buildings and hardstanding areas and landscaping of the site including open soft landscaped areas, provision of utilities and associated civil works, foul and surface water drainage, and public lighting.

There is potential for construction related air emissions to impact on local air quality as a result of the Proposed Development. Potential impacts are expected to be short-term and of a temporary nature. The main air quality impacts that may arise during construction activities are:

- Dust deposition;
- Elevated particulate matter concentrations ( $PM_{10}$  and  $PM_{2.5}$ ) as a result of dust generating activities on site; and
- An increase in concentrations of airborne particles, volatile organic compounds, nitrogen oxides, and sulphur oxides due to exhaust emissions from diesel powered vehicles and equipment on site (non-road mobile machinery) and vehicles accessing the site.

The greatest potential impact on air quality during this phase is from construction dust emissions and the potential for nuisance dust. The dust emissions from a construction site that may result in air quality impacts generally depend on:

- Site activities and duration;
- The size of the site;
- The meteorological conditions;
- The proximity of receptors to the activities;
- The adequacy of applied mitigation measures; and
- The sensitivity of receptors to dust.



The primary sources of dust identified include soil excavation works, demolition, bulk material transportation, loading and unloading, stockpiling materials, cutting and filling, and vehicular movements (HGVs and on-site machinery).

Meteorological conditions greatly affect the level of dust emissions and subsequent deposition downwind of the source; the most predominant being rainfall and wind speed. Adverse impacts can occur in any direction from a site; however, they are more likely to occur downwind of the prevailing wind direction and/or close to the site. Relatively high levels of moisture in the surrounding air, soils, and precipitation helps to suppress dust due to the cohesive properties of water between dust particles. The least favourable meteorological conditions for dust generation would typically be warm days with strong winds and low precipitation. Due to the variability of weather, it is impossible to predict the conditions that will occur during the Construction Phase of the development. However, wind direction is most likely to prevail from the southwest.

According to Transport Infrastructure Ireland guidelines (TII, 2011), it is difficult to accurately quantify dust emissions arising from construction activities. Therefore, it is not possible to easily predict changes to dust soiling rates or PM<sub>10</sub> concentrations. TII recommend a semi-quantitative approach to determine the likelihood of significant impact in this instance. This should also be combined with an assessment of the proposed mitigation measures. The following table outlines the distance criteria which is recommended for use in assisting a semi-quantitative assessment:

*Table 8-4: Assessment Criteria for the Impact of Dust Emissions from Construction Activities, with Standard Mitigation in Place*

Source		Potential Distance for Significant Effects (Distance from source)		
Scale	Description	Soiling	PM10	Vegetation effects
<b>Major</b>	Large construction sites, with high use of haul routes	100m	25m	25m
<b>Moderate</b>	Moderate sized construction sites, with moderate use of haul routes	50m	15m	15m
<b>Minor</b>	Minor construction sites, with limited use of haul routes	25m	10m	10m

In order to account for a worst-case scenario, the Proposed Development can be considered moderate in scale due to the size of the Site and the duration of construction activities.

Therefore, it can be assumed that there is potential for significant dust soiling 50m from the Site.

The majority of receptors in the vicinity of the Site are of a commercial nature and would be considered medium-sensitivity receptors. There are no high-sensitivity receptors located within 50m of the Site boundary; therefore, significant construction-related impacts are not expected to arise in this instance. Nevertheless, appropriate mitigation measures will be recommended to further minimise the risk of such impacts occurring.

Appropriate mitigation measures have been recommended and will be implemented at the Site in order to minimise the risk of dust emissions arising during the Construction Phase. These mitigation measures have been outlined in the Construction Environmental Management Plan (CEMP) (DBFL Consulting Engineers) for the Site, and provided such measures are adhered to, it is not considered that significant air quality impacts will occur.

Construction vehicles and machinery during this phase will temporarily and intermittently generate exhaust fumes and consequently potential emissions of volatile organic compounds, nitrogen oxides, sulphur oxides, and particulate matter (dust). Dust emissions associated with vehicular movements are largely due to the resuspension of particulate materials from ground disturbance. According to the IAQM (2014), experience from the assessment of exhaust emissions from on-site machinery and Site traffic suggests that they are unlikely to make a significant impact on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed. Air pollutants may increase marginally due to construction-related traffic and machinery from the Proposed Development. However, any such increase is not considered significant and will be well within relevant ambient air quality standards. According to TII (2011), the significance of impacts due to vehicle emissions during the Construction Phase will be dependent on the number of additional vehicle movements, the proportion of HGVs and the proximity of sensitive receptors to Site access routes. If construction traffic would lead to a significant change ( $> 10\%$ ) in Annual Average Daily Traffic (AADT) flows near to sensitive receptors, then concentrations of nitrogen dioxide,  $PM_{10}$  and  $PM_{2.5}$  should be predicted in line with the methodology as outlined within TII guidance. Construction traffic is not expected to result in a significant change ( $> 10\%$ ) in AADT flows near to sensitive receptors. Therefore, a detailed air quality assessment is not required.

According to the Traffic and Transport Assessment for the Proposed Development (Clifton Scannell Emerson Associates), traffic-related impacts during the Construction Phase are expected to be short-term, negative, and insignificant, and it is not anticipated that a significant residual impact will occur.

#### **8.1.5.1.2 Operational Phase**

Operational traffic will use regional and local roads to access the facility with potential increases of traffic flow on some roads and subsequent associated emissions of VOCs, nitrogen oxides, sulphur dioxides and increased particulate matter concentrations.

In terms of associated impacts on air quality, Table 8-5 outlines the criteria that are prerequisite for an air quality assessment. According to IAQM guidance (2017), if none of the criteria are met, then there should be no requirement to carry out an air quality assessment

for the impact of the development on the local area, and the impacts can be considered as having an insignificant effect.

*Table 8-5: Indicative Criteria for Requiring an Air Quality Assessment (Source: IAQM, 2017)*

Potential Change resulting from Proposed Development	Indicative Criteria to Proceed to an Air Quality Assessment
Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors	A change of LDV flows of more than 1000 Annual Average Daily Traffic (AADT)
Cause a significant change in Heavy Duty Vehicle (HGV) flows on local roads with relevant receptors	A change of HGV flows of more than 100 Annual Average Daily Traffic (AADT)
Realign roads, i.e., changing the proximity of receptors to traffic lanes	Where the change is 5m or more
Cause a change in Daily Average Speed (DAS)	Where the DAS will change by 10 km/h or more
Cause a change in peak hour speed	Where the peak hour speed will change by 20km/h or more.

As per the Traffic and Transport Assessment which has been detailed in Chapter 12, Section 12.1, the criteria presented in Table 8-5 have not been met by the Proposed Development; it is therefore considered unlikely for significant air quality impacts to occur as a result of increased traffic flow, and an associated air quality assessment is not required.

#### **8.1.5.2 Potential Impacts on Climate**

##### **8.1.5.2.1 Construction Phase**

There is the potential for combustion emissions from onsite machinery and traffic derived pollutants of CO<sub>2</sub> and N<sub>2</sub>O to be emitted during the construction phase of the development. However, due to the size and duration of the construction phase, and the mitigation measures proposed, the effect on national GHG emissions will be insignificant in terms of Ireland's obligations under the Kyoto Protocol and therefore will have no considerable impact on climate. Overall, climatic impacts are considered to be short-term and imperceptible.

##### **8.1.5.2.2 Operational Phase**

###### *8.1.5.2.2.1 Carbon Footprint*

The Proposed Development aims to reduce energy usage and carbon emissions by exploring sustainable design options and energy efficient systems that are technically, environmentally, and economically feasible for the project.

#### 8.1.5.2.2.2 *Energy Statement (NZEB & Part L Planning Compliance)*

Building energy has been long understood as contributing a major component of GHG emissions; this was acknowledged within the 2030 Communication published by the European Commission (2014) which stated that “the majority of the energy-saving potential (for the EU) is in the building sector”. The EU Energy Performance of Buildings Directive set out the target that all new developments should be Nearly Zero-Energy Buildings (NZEB) by the end of 2020.

Nearly Zero Energy Building (NZEB) means a building that has a very high energy performance and is designed to nearly zero or very low amount of energy required to be covered by energy from renewable sources produced on-site or nearby.

An Energy Statement (NZEB & Part L Planning Compliance) Report has been prepared by Axiseng Consulting Engineers. With consideration to the EU energy performance of Buildings Directive (EPBD), the Building Regulations Technical Guidance Document, Part L (NZEB), and Dublin Local Authorities strategy for sustainable design and reductions in energy and carbon emissions; the building services design strategy in the Proposed Development building is to utilise sustainable design options and energy efficient systems that are technically, environmentally, and economically feasible for a project of this kind.

The Report demonstrates that the proposed strategy will meet the energy and sustainability targets for this development by outlining different measures taken through passive and active elements, which have been designed to reduce energy, carbon emissions, and cost throughout the building's lifecycle.

#### 8.1.5.2.2.3 *Operational Traffic*

Increased LDV traffic flow as a result of the Proposed Development is likely to contribute to increases in GHG emissions such as CO<sub>2</sub> and N<sub>2</sub>O. However, due to the predicted minimal change in traffic, these contributions are likely to be marginal in terms of overall national GHG emission estimates and Ireland's obligations under the Kyoto Protocol, and therefore unlikely to have an adverse effect on climate.

#### 8.1.5.2.2.4 *Flood Risk*

There is growing scientific consensus that the warming of the climate is expected to increase the risk of floods. Rising sea levels and more frequent and severe coastal storms will increase the risk of coastal and estuarial flooding as well as coastal erosion. According to the Planning System and Flood Risk Management (DECLG & OPW, 2009), where the floodplain or coastal plain is well defined, climate change is expected to change the probability of flooding and the depth for a particular event with little change in spatial extent. Only where extensive areas of land rise gently from the river or the sea is climate change expected to significantly increase the area affected by flooding.

There is a great deal of uncertainty in relation to the potential effects of climate change; therefore, a precautionary approach should be adopted, where necessary, to reflect uncertainties in flooding datasets and the ability to predict the future climate. Development should be designed with careful consideration to possible future changes in flood risk,



including the effects of climate change so that future occupants are not subject to unacceptable risk (OPW, 2009).

A Site-Specific Flood Risk Assessment (SSFRA) was undertaken by DBFL Consulting Engineers on behalf of Blanche Retail Nominee Limited for the Proposed Development. The SSFRA uses information obtained from various sources, as outlined within the report, in order to carry out an assessment of flood risk for the existing land and Proposed Development. The findings of the SSFRA concluded that the Proposed Development Site is located within Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1%AEP or 1 in 1000) for both river and coastal flooding and is considered suitable for development. The Proposed Development is also considered to have the required level of flood protection up to and including the 100year return event.

#### **8.1.5.3 Potential Cumulative Impacts**

##### **Potential Cumulative Impacts**

Cumulative Impacts can be defined as *“impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project”*. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

Table 8-6 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

*Table 8-6 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	Green Mall (Also known as the Central Mall) & Yellow Mall	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>"The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use."</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>

FW18A/0168	Blue Mall	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	Cumulative impacts relating to air quality are not predicted.
FW20A/0030 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall.</p> <p>Development works have been completed.</p>
FW20A/0018 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>



FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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FW19A/0017	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
dac/145/19	Red Mall	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Cent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
19/4224	Red Mall	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

FW18A/0116	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p>
18/4234	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
FW18A/0011	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>



F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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The cumulative effects on the air quality and climate of the current Proposed Development and other planned or existing developments have been considered, in particular through the generation of air pollutants and GHG emissions. There are no planned or proposed projects located in close proximity to the Proposed Development with potential to result in cumulative impacts, therefore cumulative impacts are not predicted in this regard.

#### 8.1.5.4 'Do Nothing' Impact

The Do-Nothing impact has been considered in terms of air quality in this chapter. If the Proposed Development did not proceed, the Proposed Development Site would continue to be used as carparking for the Blanchardstown Town Centre. The existing ambient air quality would remain unchanged onsite and at nearby sensitive receptors.

Greenhouse gas emissions as a result of the Proposed Development are also likely to be marginal in terms of overall national GHG emission estimates and Ireland's obligations under the Kyoto Protocol when compared to a Do-Nothing scenario.

## **8.1.6 Avoidance, Remedial & Mitigation Measures**

### **8.1.6.1 Air Quality**

#### **8.1.6.1.1 Construction Phase**

It is not expected that adverse air quality impacts are likely to occur as a result of the Proposed Development due to the lack of sensitive receptors. However, appropriate mitigation measures, as outlined within the CEMP for the Site, will be employed to further reduce the risk of such impacts occurring:

- The Contractor will prepare a dust minimisation plan (including a documented system for managing site practice with regard to dust and specification of effective measures to deal with any complaints received) which will be communicated to all site staff;
- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic;
- Any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions;
- Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly (on any un-surfaced site road, this will be 20 kph and on hard surfaced roads as site management dictates);
- Vehicles delivering material with dust potential (soil, aggregates etc.) will be enclosed or covered with tarpaulin at all times to restrict the escape of dust;
- Public roads outside the site will be inspected on a daily basis for cleanliness and cleaned as necessary;
- Debris, sediment, grit etc. captured by road sweeping vehicles is to be disposed off-site at a licensed facility;
- Vehicles exiting the site will make use of a wheel wash facility where appropriate prior to entering onto public roads;
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods;
- During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.

#### **8.1.6.1.2 Operational Phase**

It has been determined that the Operational Phase air quality impact is negligible and therefore no Site-specific mitigation measures are proposed.

### **8.1.6.2 Climate**

As negative climatic impacts associated with the Construction and Operational Phases of the Proposed Development are negligible, no mitigation measures are proposed. Best practice measures will be implemented to minimise exhaust emissions from construction and operational vehicles and machinery by avoidance of engines running unnecessarily, as idle engines will not be permitted for excessive periods. Furthermore, all proposals for development will seek to achieve the greatest standards of sustainable construction and design and will have regard to sustainable building design criteria.

### **8.1.6.3 "Worst Case" Scenario**

Worst case scenario would involve failures of mitigation measures for the Proposed Development. In such events, it is not considered that dust nuisances will occur due to the lack of sensitive receptors in the surrounding environment.

### **8.1.7 Residual Impacts**

Residual Impacts are defined as *'effects that are predicted to remain after all assessments and mitigation measures'*. They are the remaining 'environmental costs' of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts. Potential residual impacts from the Proposed Development were considered as part of this environmental assessment.

The Proposed Development is likely to result in a long-term slight increase in traffic on the roads surrounding the Proposed Development Site; however, this increase in traffic has been determined to have negligible impacts in terms of local air quality. Furthermore, the increase in traffic has been determined as marginal with regard to climatic impacts. Therefore, no adverse residual impacts are anticipated from the proposed scheme in the context of air quality and climate.

### **8.1.8 Monitoring**

The monitoring of construction dust during the Construction Phase of the Proposed Development is recommended to ensure that impacts are not experienced beyond the Site boundary. Monitoring of dust can be carried out by using the Bergerhoff Method. This involves placing Bergerhoff Dust Deposit Gauges at strategic locations along the Site boundaries for a period of 30 +/- 2 days. The selection of sampling point locations should be carried out in consideration of the requirements of VDI 2119 with respect to the location of the samplers relative to buildings and other obstructions, height above ground, and sample collection and analysis procedures. After the exposure period is complete, the Gauges should be removed from the Site; the dust deposits in each Gauge will then be determined gravimetrically and expressed as a dust deposition rate in mg/m<sup>2</sup>/day in accordance with the relevant standard.

Due to the negligible impact on air quality and climate from the Operational Phase of the Proposed Development, no specific monitoring is recommended.

### **8.1.9 Interactions**

Interactions between Air Quality and Climate and other aspects of this Environmental Impact Assessment Report have been considered and are detailed below.

#### **8.1.9.1 Population and Human Health**

Interactions between Air Quality and Population and Human Health have been considered as the Operational Phase has the potential to cause health issues as a result of impacts on air quality from dust nuisances and potential traffic derived pollutants. However, the mitigation measures employed at the Proposed Development will ensure that all impacts are compliant with ambient air quality standards and human health will not be affected. Furthermore, traffic-related pollutants have been considered and determined as negligible, therefore air quality impacts from the Proposed Development are not expected to have a significant impact on population and human health.

#### **8.1.9.2 Traffic**

There can be a significant interaction between air quality, climate and traffic. This is due to traffic-related pollutants that may arise. In the current assessment, traffic derived pollutants which may affect Air Quality and Climate have been deemed as negligible. Therefore, the impact of the interaction between air quality and climate is insignificant.

### **8.1.10 Difficulties Encountered When Compiling**

No difficulties have been encountered while compiling this chapter.

### **8.1.11 References**

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## 9 MICROCLIMATE

### 9.1 Introduction

This Chapter of the EIAR was prepared by GIA and assesses the impact of sites B and C of the proposed PRS Development at Blanchardstown on the wind conditions affecting activities in areas within and surrounding the development. The Site of the Proposed Development is located at Blanchardstown Town Centre, Dublin 15.

The proposed mixed use development consists of 6 no. apartment buildings (A, B, C, D, J and K), with ground floor commercial uses, **ranging from 5 to 13 no. storeys** in height and extension, including associated alterations, of the existing multi storey car park (the Blue Car Park) **from 4 no. levels to 6 no. levels**.

This chapter also describes the methods used to assess the impacts; the baseline conditions currently existing at the site and surrounding area; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after these measures have been adopted.

### 9.2 Study Methodology

#### 9.2.1 Baseline Study Methodology

Baseline conditions were established using a high-resolution Computational Fluid Dynamics (CFD) model, extending in a 400m radius from the site. CFD is a digital modelling technique, which simulates the effect of wind for the built environment.

The assessment was performed using full-scale CFD modelling to predict the air flow patterns and wind velocities around the proposed development. The assessment was conducted using a digital model of the site and a 400m radius of its surroundings with a resolution of 0.05-0.25m around the proposed development, divided into between 50 million and 114 million “cells”, and tested from 18 wind angles.

The baseline surrounds consist of buildings which are either complete or expected to be complete at the time of the planning application (2022).

#### 9.2.2 Assessment Approach

The model was run at full scale from 18 wind angles, spaced using 10° or 30° increments such that no sector contributes more than 10% of the annual wind. The wind angles which were run are

Wind speeds were measured at 1.5m above any surfaces expected to be used for pedestrian activity.

On-site and local wind speeds were combined with 30 years-worth of weather data for Dublin Airport, corrected for terrain local to the airport and the site, to obtain annual and seasonal frequency and magnitude of wind speeds across the model. This allows the ‘grading’ of the pedestrian level winds according to the Lawson Comfort Criteria, which are explained later in this EIAR chapter.

Seasonal wind roses for the airport are shown in Figure 9-1. The dominant wind direction is from the south-west, with a second peak from the south-east.

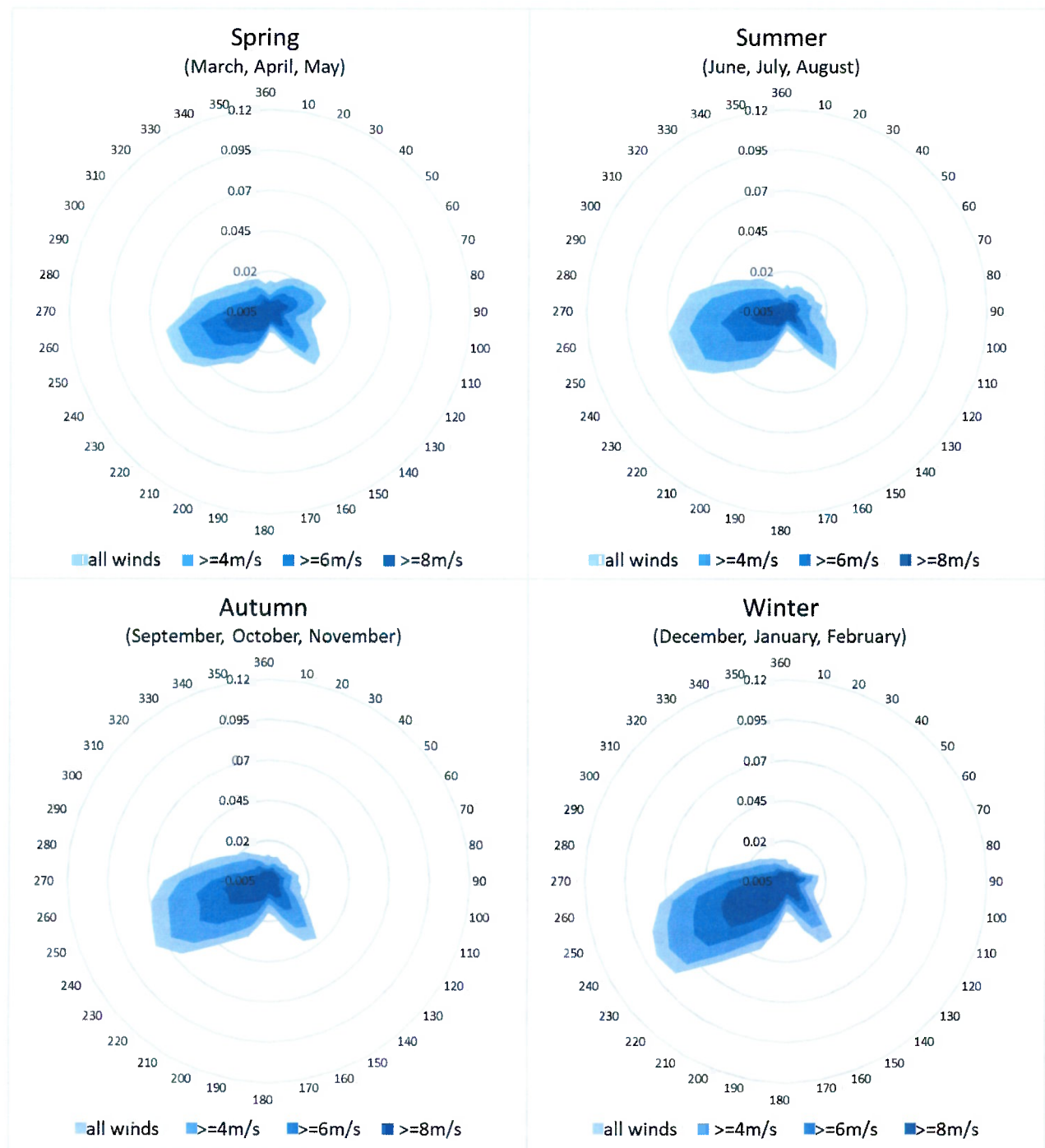


Figure 9-1: Seasonal Wind Roses for Dublin Airport (1990-2021)

The correction factors between the airport (measured 10m above ground) and the site (at a reference height of 120m, chosen to represent the freestream wind speed away from near-ground obstructions) are shown in Table 9-1. It should be noted that the terrain analysis has been performed using sectors of 30°.



*Table 9-1: Site Wind Correction Factors*

0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°	300°
1.32	1.36	1.35	1.33	1.39	1.41	1.49	1.44	1.41	1.41	1.32	1.32

The following scenarios were tested as part of the assessment:

- Scenario 1: Baseline for site and surrounds; and
- Scenario 2: Proposed Development in baseline surrounds;

### 9.2.3 Assessment of Effects

The assessment was performed using the London Docklands Development Corporation (LDDC) variant of the Lawson Comfort Criteria. The Lawson Criteria are well-established in Ireland for quantifying wind conditions in relation to built developments and, although not an Irish 'standard', the criteria are recognised by local authorities as a suitable benchmark for wind assessments. The LDDC variant is established as the most practically applicable variant of the Lawson criteria, and is used industry wide.

Lawson devised a scale for assessing the suitability of wind conditions in the urban environment based upon threshold values of wind speed and frequency of occurrence. This guidance will be used to inform the assessment. The commonly used London Docklands Development Corporation (LDDC) method of the Lawson Criteria (as described in Lawson, T (2001), Building Aerodynamics) is set out in Table 9-2 and Table 9-3.

*Table 9-2 Lawson Comfort Criteria (LDDC variant)*

Comfort Category	Mean Wind Speed (5% exceedance)	Description
<b>Sitting</b>	4m/s	Acceptable for outdoor sitting use (e.g., cafes, benches, balconies).
<b>Standing</b>	6m/s	Acceptable for main building entrances, pick-up/drop-off points and bus stops.
<b>Walking (leisure)</b>	8m/s	Acceptable for strolling.
<b>Walking (business)</b>	10m/s	Acceptable for external pavements, walking purposefully without lingering.
<b>Uncomfortable</b>	>10m/s	Not comfortable for regular pedestrian access.

*Table 9-3 Lawson Safety Criteria (LDDC variant)*

Safety Category	Mean Wind Speed (2hrs/year exceedance)	Description
<b>No Safety Exceedance</b>	<15m/s	No significant risk of strong winds for any users.
<b>S15 (distress)</b>	>15m/s	Unsafe for frail individuals, or cyclists.
<b>S20 (safety)</b>	>20m/s	Wind conditions considered unsafe for all users.

For a mixed-use urban area such as one within which the site is located, the desired wind microclimate would typically need to have areas acceptable for sitting, standing (including at entrances of buildings) and walking use.

During operation, exceedance of either S15 or S20 will be classified as unsafe.

During the construction phase, it can be reasonably assumed that the site will be occupied by construction workers, who are unlikely to be frail individuals. As such, only S20 exceedances would be classified as unsafe for on-site effects during this phase.

Any areas which show up as either unsafe (annually) or uncomfortable (for winter) are considered unsuitable, unless they are in locations where pedestrian access can be controlled in the event of strong winds. This applies to all thoroughfares (for pedestrians) and roads (for cyclists) around the proposed development.

Any amenity spaces are targeted to be suitable for a mixture of sitting and standing during the summer months.

Balconies are private spaces, the use of which can be controlled by the user depending on the conditions on a specific day, so whether conditions are comfortable can be effectively managed by the individual. The target condition for balconies is that they are not subject to any safety exceedances.

The areas immediately outside any building entrances should be suitable for standing use during winter to provide a “buffer” between the still conditions in interior spaces and the general thoroughfare. This applies both to the entrances of the proposed development and also off-site entrances.

### **9.3 The Existing and Receiving Environment (Baseline Situation)**

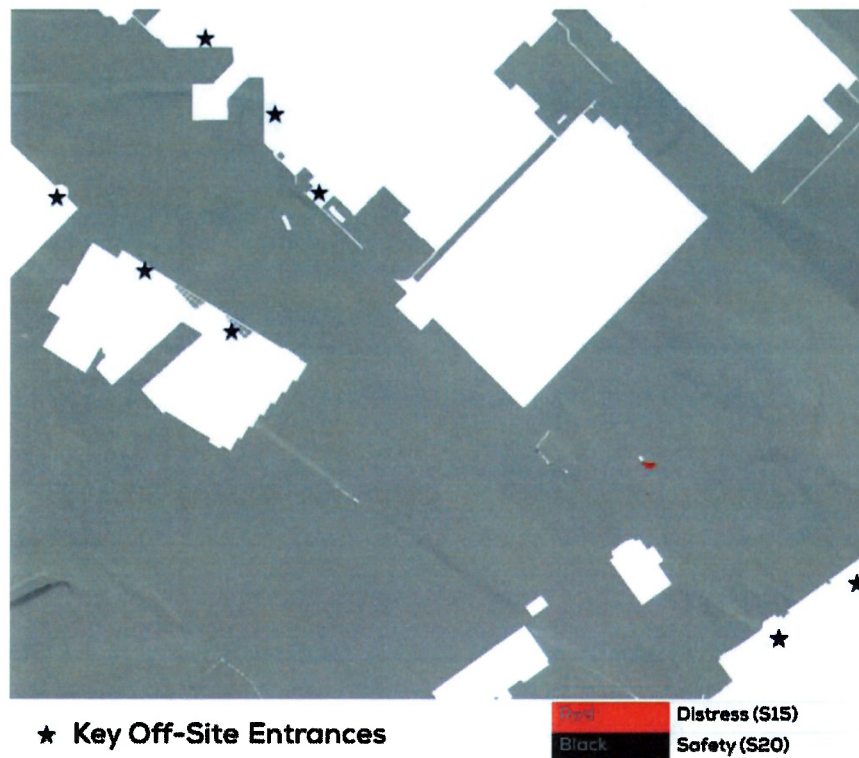
Ground level wind safety for the baseline scenario is shown in Figure 9-2. Ground level comfort in winter conditions is shown in Figure 9-3. Ground level comfort in summer conditions is shown in Figure 9-4.

Winter conditions range between sitting, standing, leisure walking and business walking. Summer conditions range between sitting, standing and leisure walking.

There is small region of S15 (distress) exceedance in the Westend Shopping Centre car park. This will pose a safety risk to frail individuals or cyclists.

Conditions at the majority of key off site entrances are suitable for sitting or standing, which is suitable for the intended use.

There are 3 entrances, one to the Blanchardstown Centre to the north, one to Veritas Blanchardstown, and one to the Westend Shopping Centre to the south east of the study area, which are suitable for leisure walking in winter. This is a category windier than required for the intended use.



*Figure 9-2 Ground Level Wind Safety for Baseline Scenario*



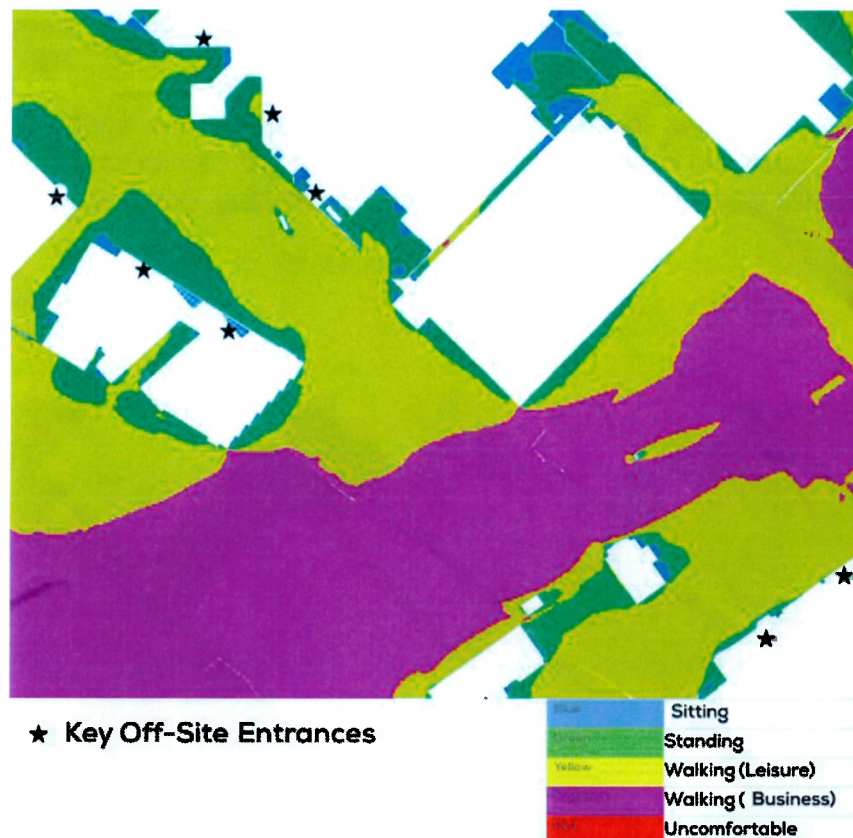


Figure 9-3 Ground Level Winter Comfort for Baseline Scenario

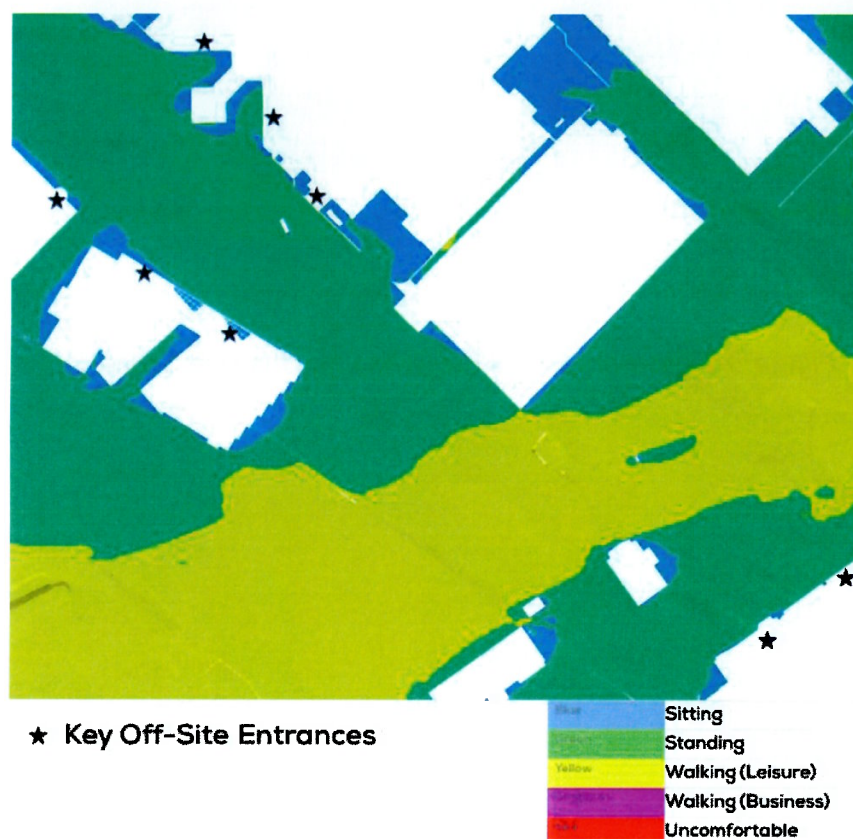


Figure 9-4 Ground Level Summer Comfort for Baseline Scenario



## 9.4 Characteristics of the Proposed Development

A 3D view of the Proposed Development is shown in Figure 9-5 and a plan view of the Proposed Development is shown in Figure 9-6.

The Proposed Development is spread across two sites; Site B to the south west and Site C to the north west. The buildings within Site B range up to 13 storeys in height. The buildings within Site C range up to 10 storeys in height.

The Proposed Development consists of a mixture of residential units and retail units. The entrances to each of these units will be considered in this EAIR chapter.

There are external balconies on all buildings within the Proposed Development.

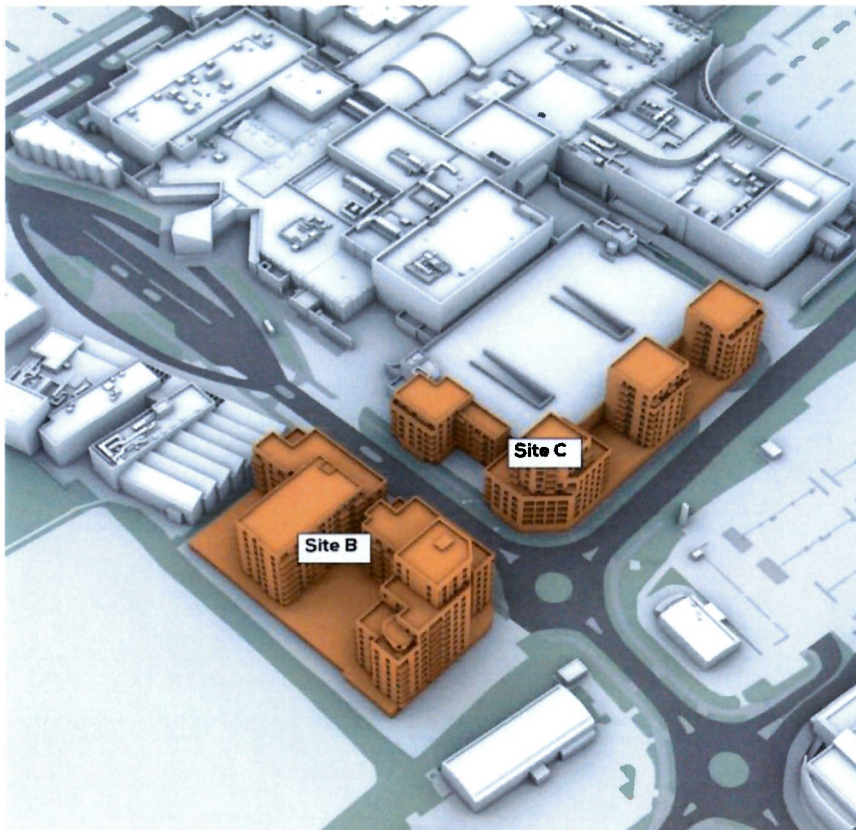
There is proposed ground level amenity outside of each site, within the regions marked A in Figure 9-6.

There are first floor terraces for each site, which are marked CT1, CT2, CT4 and CT5 in Figure 9-6.

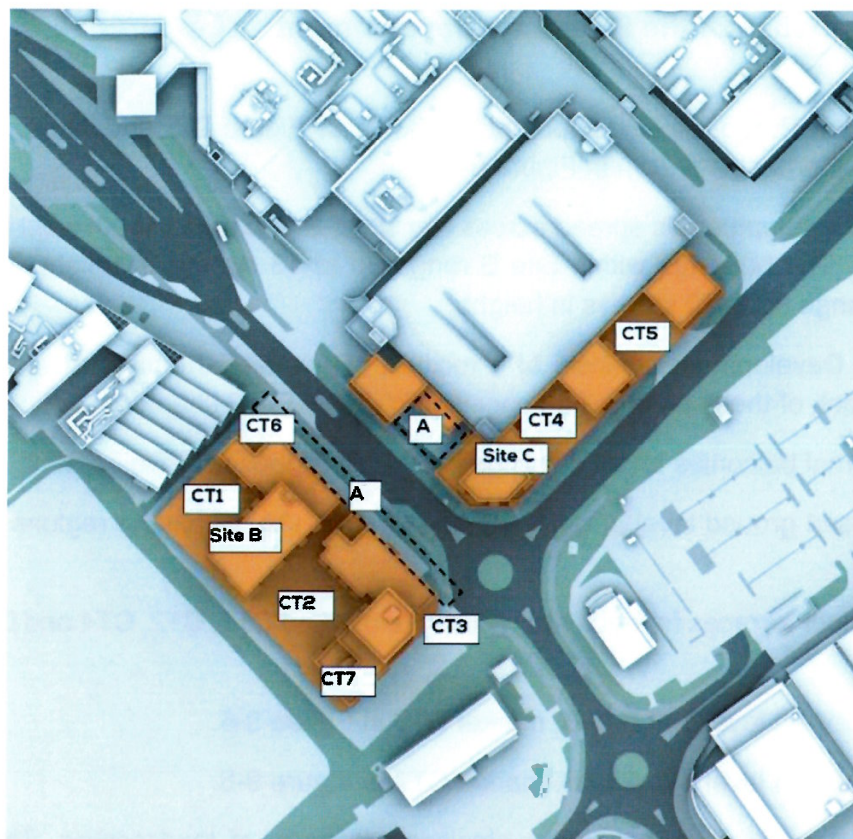
There is a terrace on level 5 of Site B, marked CT6 in Figure 9-6.

There is a terrace on level 8 of Site B, marked CT7 in Figure 9-6.

The proposed development includes a significant amount of landscaping. This has been included in the model in accordance with the plans shown in Figure 9-7 and Figure 9-8.



*Figure 9-5 3D View of Proposed Development*



*Figure 9-6 Plan View of Proposed Development*

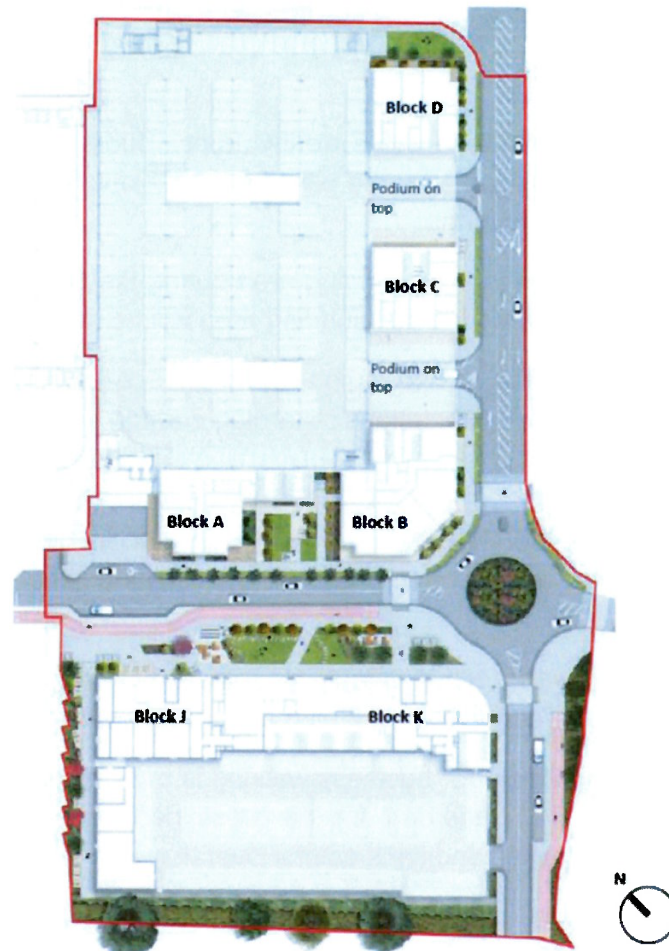


Figure 9-7 Ground Level Landscaping as Included in Tests

FIRST FLOOR ILLUSTRATIVE PLAN SOUTH SIDE



Figure 9-8 Level 1 Landscaping as Included in Tests



## 9.5 Potential Impact of the Proposed Development

### 9.5.1 Construction Phase

As the site of the Proposed Development is currently empty, during the Construction Phase, the conditions will gradually transition from the baseline conditions to those of the completed and operational Proposed Development.

There are no adverse impacts on the surrounding area during the Operational Phase, so the impact of the Construction Phase on the surrounding area will be negligible.

During the Construction Phase, the on-site region will not be accessible to the general public, so will not be subject to the same expectations regarding comfort.

### 9.5.2 Operational Phase

Ground level wind safety for the Operational Phase is shown in Figure 9-9. Ground level comfort in winter conditions is shown in Figure 9-10. Ground level comfort in summer conditions is shown in Figure 9-11.

Winter conditions range between sitting, standing, leisure walking and business walking. Summer conditions range between sitting, standing and leisure walking.

Overall, the region which is suitable for business walking is of significantly lesser extent than the region of business walking recorded for the baseline scenario, and the Proposed Development is expected to make conditions calmer overall within the local area.

The region of S15 (distress) exceedance in the Westend Shopping Centre car park, has been eradicated. This is a beneficial wind impact.

Conditions at the majority of key off site entrances are suitable for sitting or standing, which is suitable for the intended use.

There are 3 entrances, one to the Blanchardstown Centre to the north, one to Veritas Blanchardstown, and one to the Westend Shopping Centre to the south east of the study area, which are suitable for leisure walking in winter. This is a category windier than required for the intended use but is consistent with the baseline conditions so is a negligible wind impact.

Conditions for the residential and retail entrances for Site B are suitable for standing in any season. This is suitable for the intended use so is a negligible wind impact.

Conditions for the amenity entrance to Site B (circled in Figure 9-10) is suitable for leisure walking in winter, which is a category windier than required for the intended use. This is a minor adverse wind impact which will require mitigation.

Conditions for the entrances to Site C are suitable for either sitting or standing in all seasons. This is suitable for the intended use and is a negligible wind impact.

Conditions for the ground level amenity outside Site B is suitable for a mixture of sitting and standing in summer (highlighted in Figure 9-11. This is suitable for the intended use and is a negligible wind impact.

Conditions for the ground level amenity outside Site C is suitable for a mixture of sitting and standing in summer (highlighted in Figure 9-11. This is suitable for the intended use and is a negligible wind impact.



Level 1 terrace wind safety for the operational phase is shown in Figure 9-12. Level 1 terrace comfort in winter conditions is shown in Figure 9-13. Level 1 terrace comfort in summer conditions is shown in Figure 9-14.

There are no regions of safety exceedance on the Level 1 terraces (CT1, CT2, CT4 or CT5).

Winter conditions are suitable for a mixture of standing and leisure walking, with two extremely localised regions on the CT1 and CT2 which are suitable for business walking. Summer conditions are suitable for a mixture of sitting and standing, there is one small region of leisure walking on CT2, but this is located within the vegetation so is not significant. This is suitable for the intended use and is a negligible wind impact.

Balcony and upper level terrace wind safety for the operational phase is shown in Figure 9-15 and Figure 9-16. Balcony and upper level terrace comfort in winter conditions is shown in Figure 9-17 and Figure 9-18. Balcony and upper level terrace comfort in summer conditions is shown in Figure 9-19 and Figure 9-20.

There are no wind safety exceedances on either CT6 or CT7. Conditions are suitable for a mixture of standing and leisure walking in winter, and for a mixture of sitting and standing in summer. This is suitable for the intended use.

There are no wind safety exceedances on any balconies. This is suitable for the intended use.

Conditions on the balconies typically range between being suitable for sitting, standing or leisure walking in winter, and for sitting or standing in summer. There is 1 south east facing balcony on Site B (marked 1 in Figure 9-19) 1 north west facing balcony on Site B (marked 2 in Figure 9-20) and 2 south west facing balconies on Site C (marked 3 in Figure 9-20) which are suitable for leisure walking in summer. Denser balustrades may be beneficial on these balconies to give calmer conditions, but this is not a significant adverse impact.

### 9.5.3 Potential Cumulative Impacts

There are no significant proposed consented schemes within the 400m radius of the study area. As such, there are no potential cumulative impacts.

### 9.5.4 “Do Nothing” Impact

For the “Do Nothing” case, conditions will remain the same as for the baseline case and there will be no wind impacts.

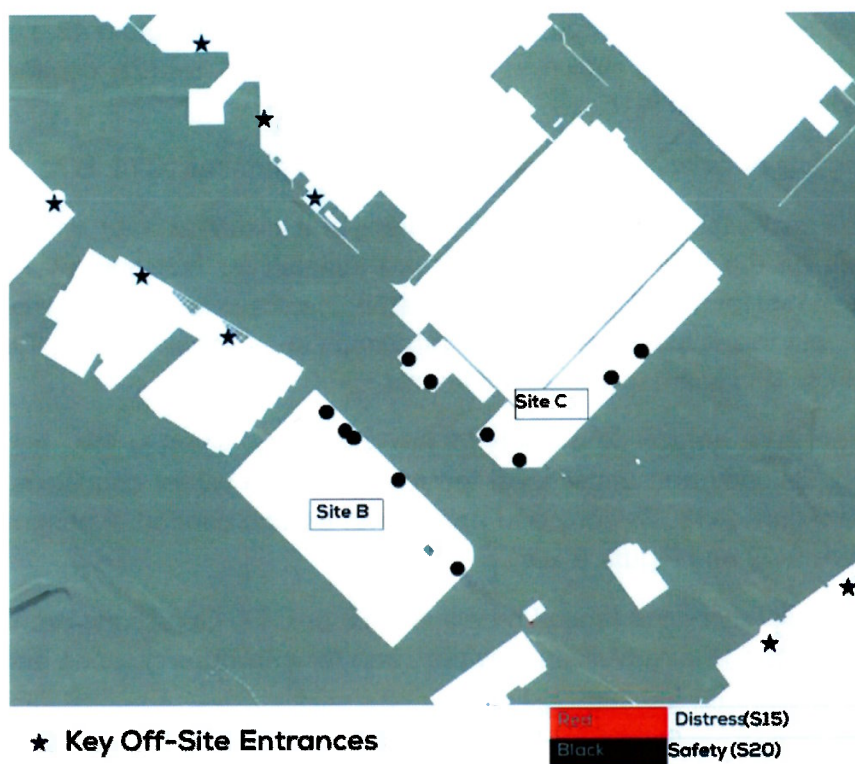


Figure 9-9 Ground Level Wind Safety for Operational Phase

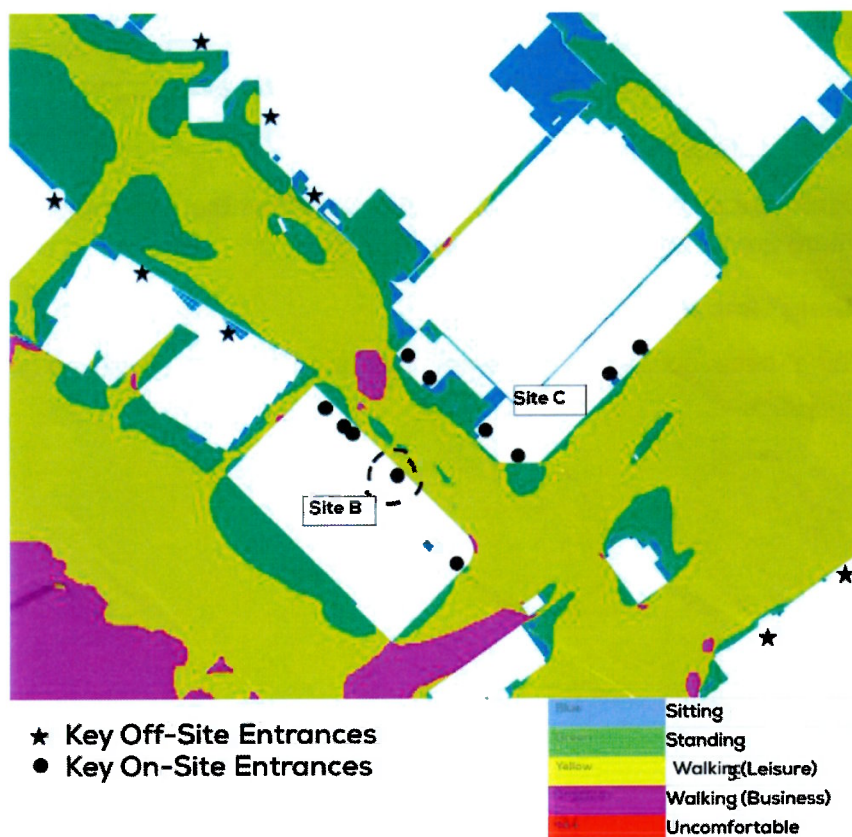


Figure 9-10 Ground Level Winter Comfort for Operational Phase

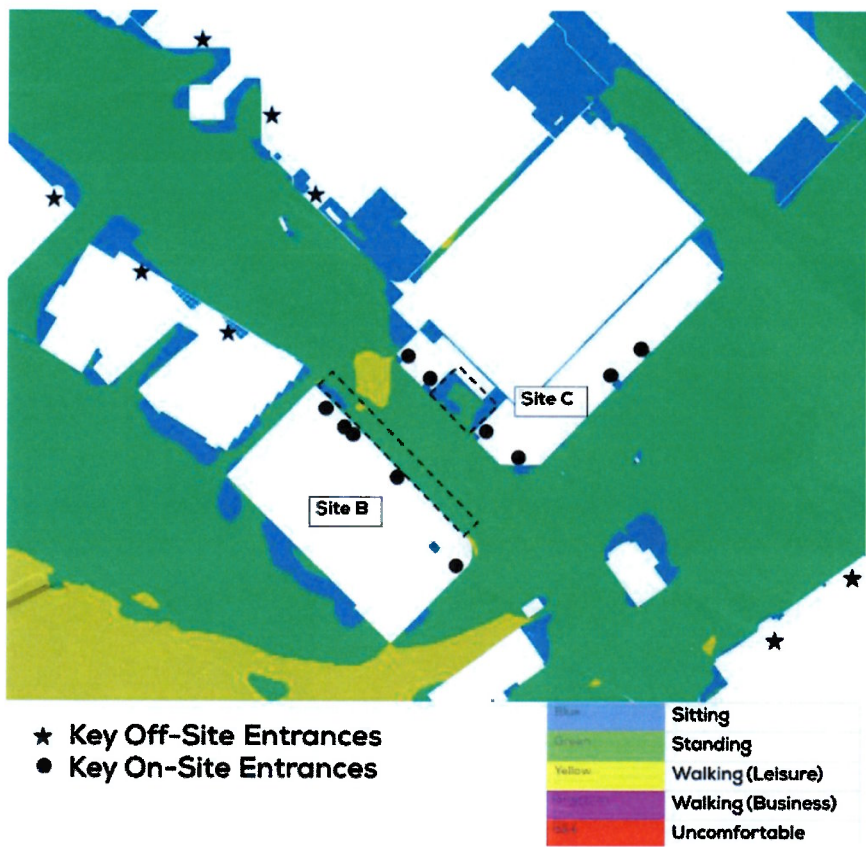


Figure 9-11 Ground Level Summer Comfort for Operational Phase

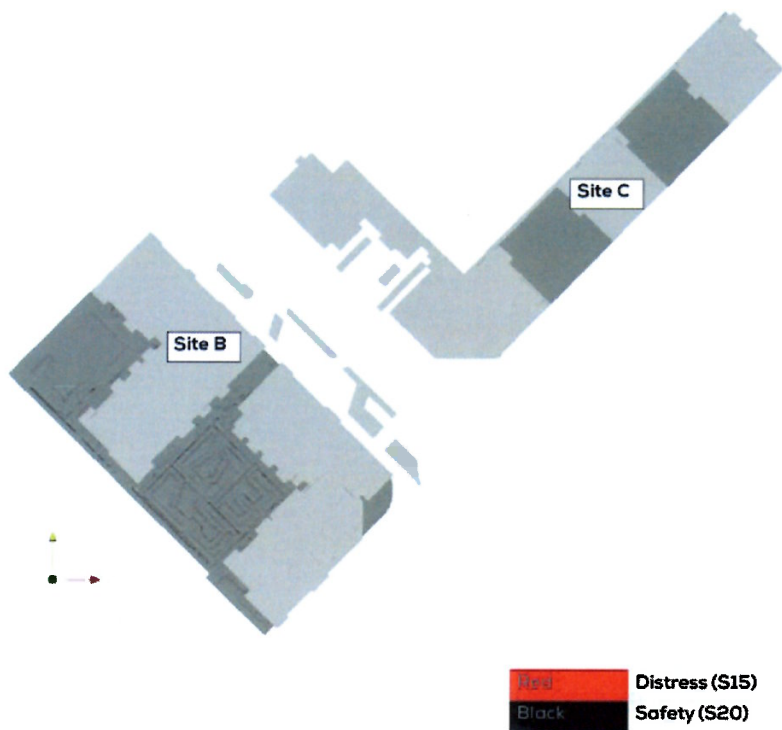


Figure 9-12 Terrace Level Wind Safety for Operational Phase

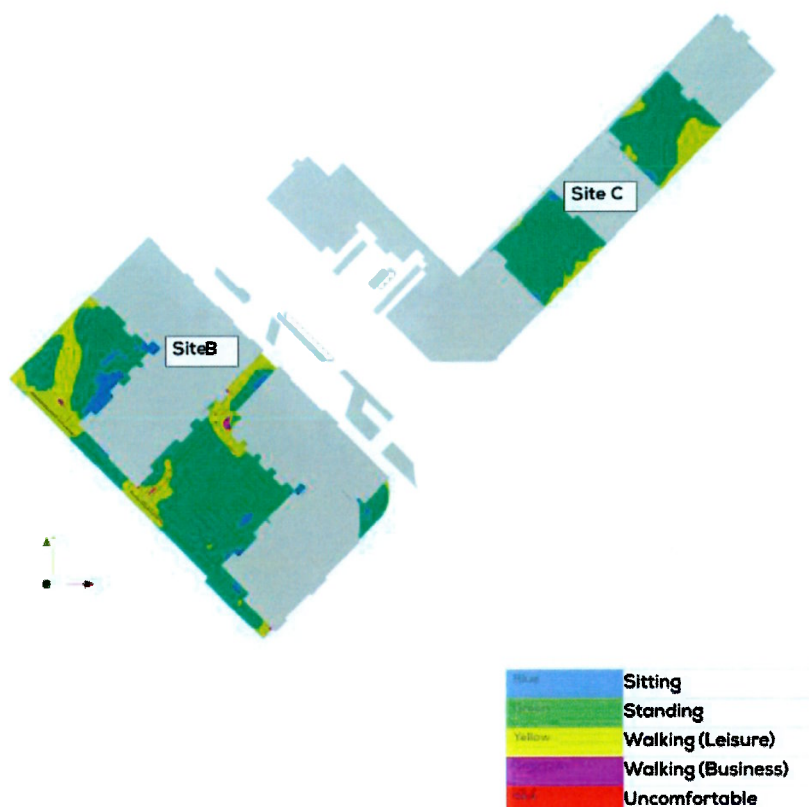


Figure 9-13 Terrace Level Winter Comfort for Operational Phase

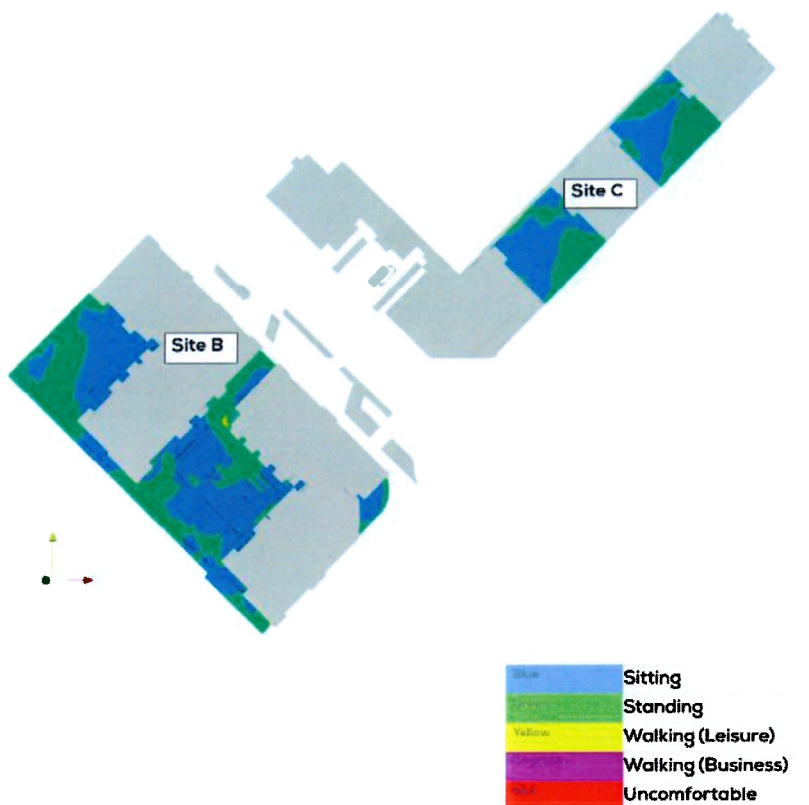


Figure 9-14 Terrace Level Summer Comfort for Operational Phase



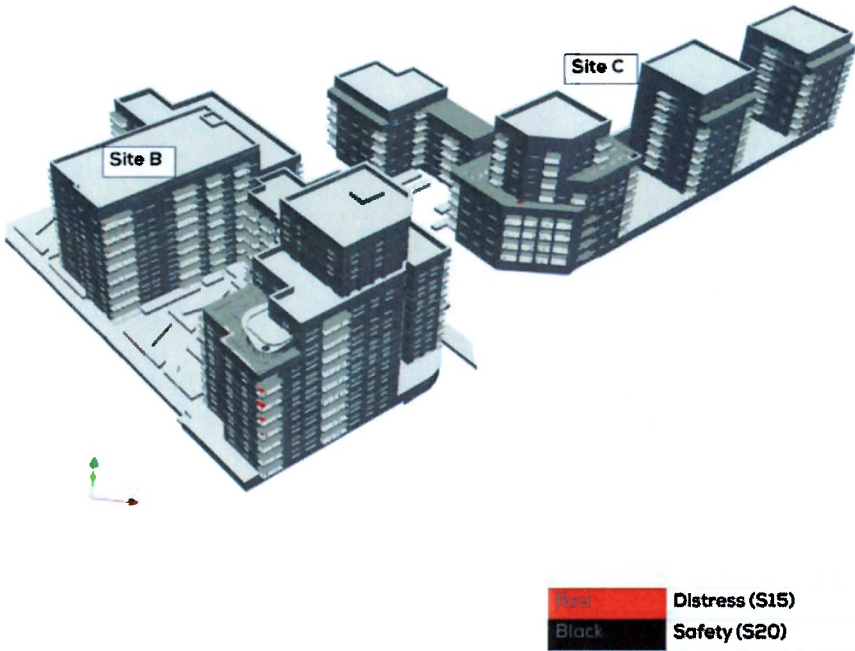


Figure 9-15 Balcony (Viewed from South) Wind Safety for Operational Phase

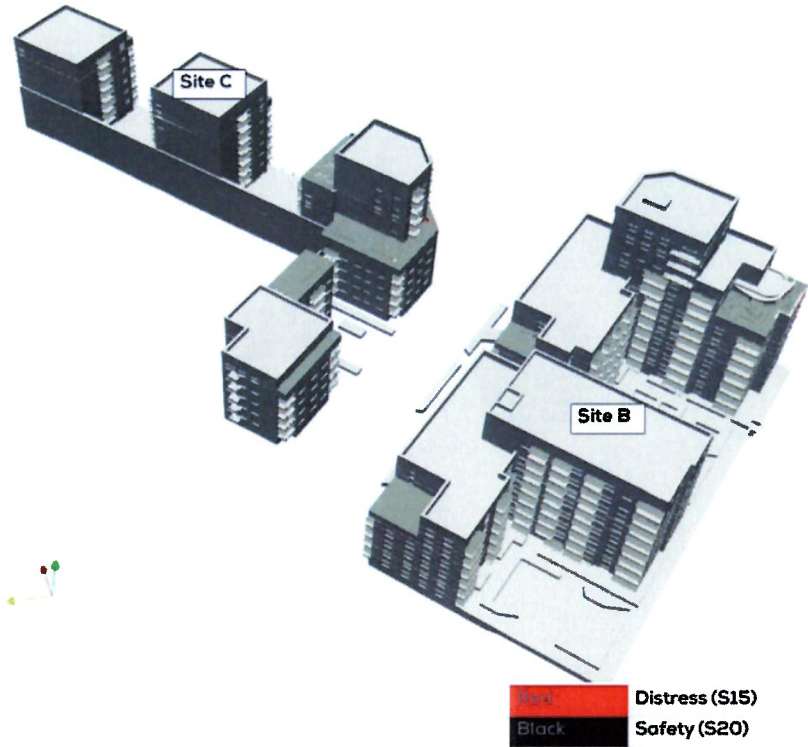


Figure 9-16 Balcony (Viewed from North West) Wind Safety for Operational Phase

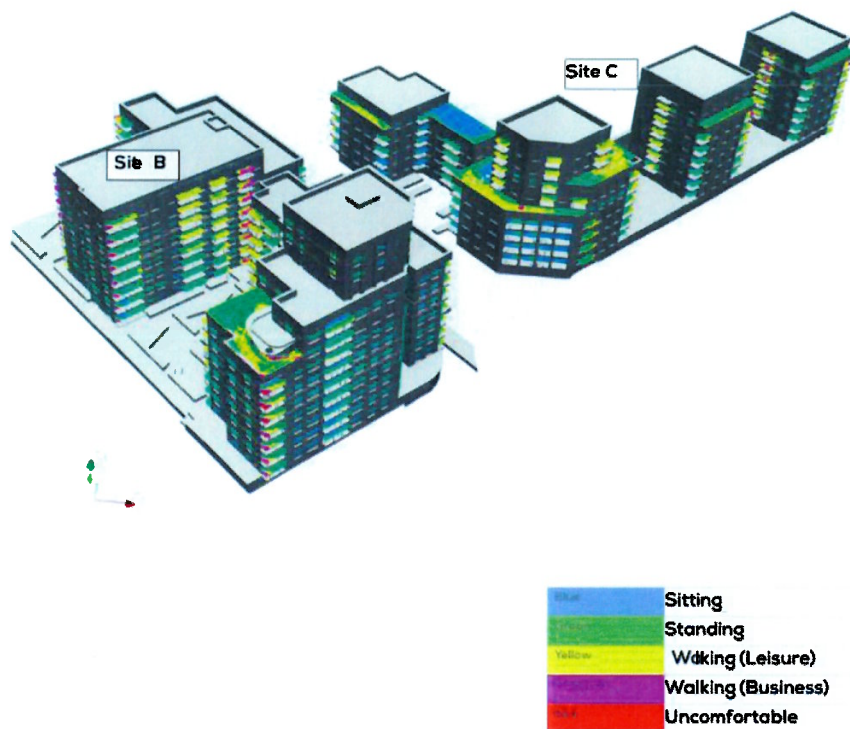


Figure 9-17 Balcony (Viewed from South) Winter Comfort for Operational Phase

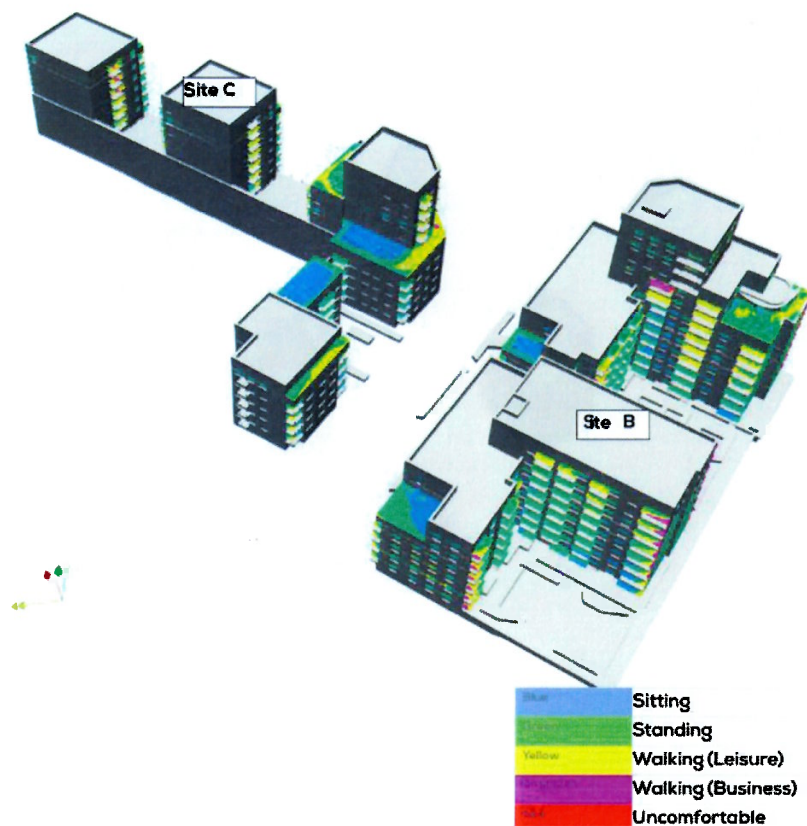


Figure 9-18 Balcony (Viewed from North West) Winter Comfort for Operational Phase

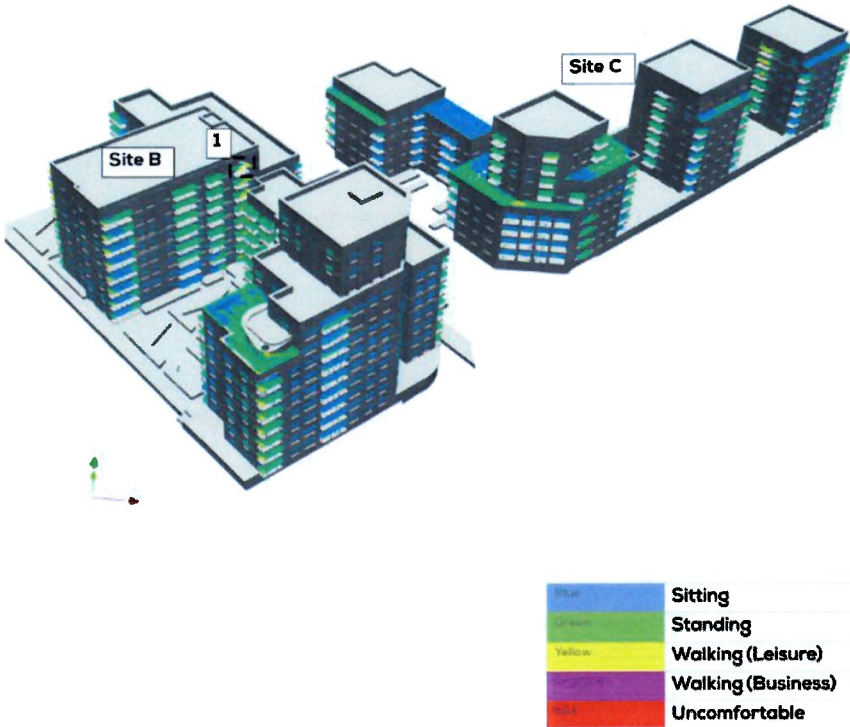


Figure 9-19 Balcony (Viewed from South) Summer Comfort for Operational Phase

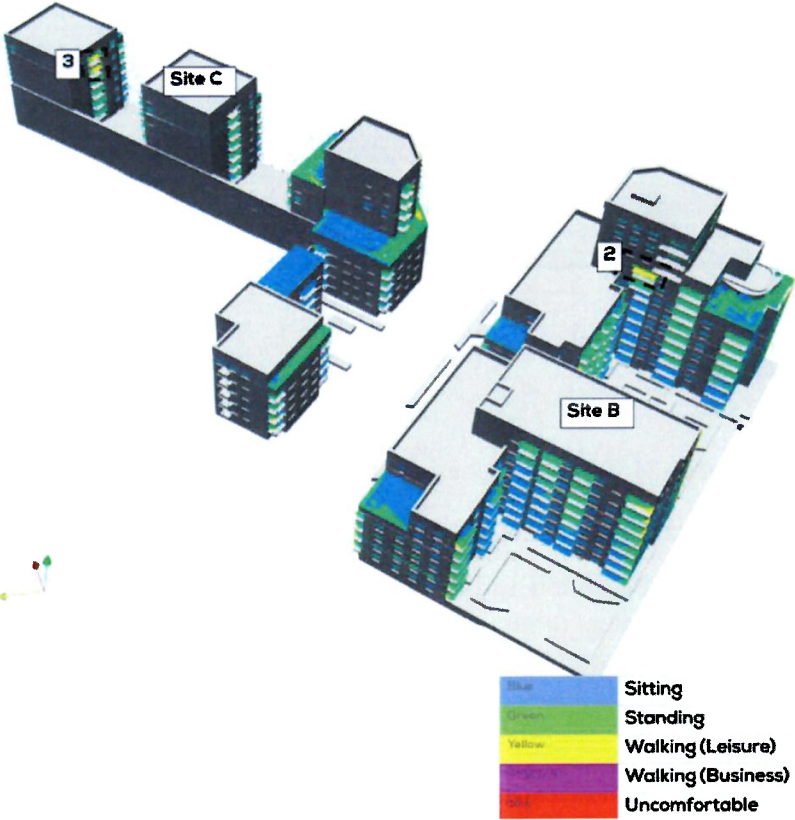


Figure 9-20 Balcony (Viewed from North West) Summer Comfort for Operational Phase







## **9.8 Monitoring**

### **9.8.1 Construction Phase**

It is not considered necessary to undertake any formal wind speed and direction monitoring during the Construction Phase.

### **9.8.2 Operational Phase**

It is not considered necessary to undertake any formal wind speed and direction monitoring during the Operational Phase.

## **9.9 Interactions**

The main interaction relating to Wind is Population and Human Health. During the Operational Phase the Proposed Development will impact on the wind microclimate within and around the Site, which ultimately can impact positively or negatively on people's health and well-being. The wind microclimate has the potential to impact on the level of pedestrian comfort and safety within the development.

### **9.10 Difficulties Encountered When Compiling**

No difficulties were encountered in compiling this Chapter of the EIAR.

### **9.11 References**

Lawson, T. Imperial College Press (2001). Building Aerodynamics

## 10 NOISE AND VIBRATION

### 10.1 Introduction

This Chapter of the EIAR provides a description and assessment of the likely impact of the Proposed Development from noise and was prepared by Laura Griffin (BA Hons, MSc), Environmental Consultant, Enviroguide Consulting.

This Chapter discusses the existing ambient noise levels at nearby sensitive receptors, the potential impacts of the Proposed Development on the existing ambient noise environment and the mitigation measures that may be employed to reduce or eliminate any potential impact.

### 10.2 Study Methodology

This assessment will examine the likely impacts of sound pressure levels generated by the Proposed Development located at Site B and Site C at Blanchardstown Town Centre, Coolmine, Dublin 15. Noise calculations will be used to predict and assess the likely impact of facility operations on noise sensitive receptors.

For the purpose of the assessment 'sensitive receptors' terminology used describes any persons, locations or otherwise that may be susceptible to changes as a consequence of the Proposed Development.

The primary noise impacts associated with this Proposed Development is noise due to construction activities and vehicular traffic.

With respect to the listed noise impacts, the key objective of the Proposed Development is to manage activities to ensure any significant increase in noise emissions are minimised.

Documents consulted during the preparation of this EIAR chapter are listed in the References section. The acoustics section has been compiled taking cognisance of:

- *Design Manual for Roads and Bridges Volume 11 Section 3 Part 7 (HD 213/11 – Revision 1) (The Highways Agency et al., 2011);*
- *BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise;*
- *ISO 1996-1:2016 Acoustics - Description, measurement and assessment of environmental noise. Part 1: Basic quantities and assessment procedures;*
- *ISO 1996-2:2017 Acoustics - Description, measurement and assessment of environmental noise Part 2: Determination of sound pressure levels;*
- *ISO 9613-1:1993 Acoustics - Attenuation of sound during propagation outdoors -- Part 1: Calculation of the absorption of sound by the atmosphere;*
- *ISO 9613-2:1996 Acoustics - Attenuation of sound during propagation outdoors -- Part 2: General method of calculation;*
- *Environmental Protection Agency (2016) Guidance Note for Noise (NG4): Licence Applications, Surveys and Assessments in Relation to Scheduled Activities;*

- *Guidelines for the Treatment of Noise & Vibration in National Road Schemes, National Roads Authority, Revision 1, 25th October 2004.*

The following noise indices, analysis and observations were reviewed.

- LAeq - The A-weighted, equivalent continuous sound level of the measurement period. Represents an 'energy average' of the sound pressure levels measured.
- LA90 - The A-weighted, noise level exceeded for 90% of the measurement period. Calculated by statistical analysis of the measurement data.
- LA10 - The A-weighted, noise level exceeded for 10% of the measurement period. Calculated by statistical analysis of the measurement data.

### 10.2.1 Desk Study

The noise assessment will review all existing information relating to the Site and its environs, which involves a desk-based study of the following:

- Baseline noise monitoring has been undertaken by the applicant. Data collected from these surveys will provide a baseline assessment for the Site and will be used to assess any future noise-related impacts of activities associated with the Proposed Development.
- An evaluation of the Site and the surrounding area to assess certain changes that are likely to impact the surrounding environs was carried out. Noise sensitive locations were identified and are discussed in this chapter.

### 10.2.2 Recommended Noise Limits

#### 10.2.2.1 Construction Phase

Currently, there is no statutory guidance in Ireland which indicates the maximum permissible noise level that may be generated during the Construction Phase of a development. Noise limits for construction activities are often applied at the discretion of the local authority along with limits on the hours of operation.

In the current assessment, British Standard *BS 5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites* has been consulted in order to derive appropriate criteria relating to permissible noise levels during the Construction Phase of a development of this scale.

A conventional EIA methodology in determining the significance of construction noise levels is to consider the change in the ambient noise level with the construction noise. *BS 5228-1* outlines two approaches to this methodology. The approach which has been adopted in the current assessment is known as the ABC method. This approach calls for the designation of noise sensitive locations into a specific category (A, B, or C) based on existing ambient noise levels in the absence of construction noise. A threshold value is then set which, if exceeded at this location, indicates a possible significant noise impact due to construction activities.

Table 10-1 sets out values, as outlined within *BS 5228-1* that signify a potential significant impact if exceeded at residential receptors. These values relate to construction noise levels only.

*Table 10-1: Example threshold of significant effect at dwellings (Source: BS 5228-1)*

Assessment category and threshold value period ( $L_{Aeq}$ )	Threshold value, in decibels (dB)		
	Category A <sup>(A)</sup>	Category B <sup>(B)</sup>	Category C <sup>(C)</sup>
Night-time (23.00-07.00)	45	50	55
Evenings and weekends <sup>(D)</sup>	55	60	65
Daytime (07.00-19.00) and Saturdays (07.00-13.00)	65	70	75

- (A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.
- (B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as Category A values.
- (C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than Category A values.

Notwithstanding the outcome of the above assessment, *Transport Infrastructure Ireland (TII) publication Guidelines for the Treatment of Noise and Vibration in National Road Schemes* (2004) have set out the overall acceptable levels of construction noise which should not be exceeded at noise sensitive locations during the Construction Phase; these are presented in the following table:

*Table 10-2: Maximum permissible noise levels at the facade of dwellings during construction*

Days & Times	$L_{Aeq}$ (1hr) dB	$L_{pA(max)slow}$ dB
Monday to Friday (07.00 to 19.00hrs)	70	80
Monday to Friday (19.00 to 22.00hrs)	60	65
Saturday (08.00 to 16.30hrs)	65	75
Sundays and Bank Holidays (08.00 to 16.30hrs)	60	65

For the duration of the proposed infrastructure works, typical working hours will be 07:00 to 19:00 Monday to Friday (excluding bank holidays) and 09:00 to 13:00 Saturdays. Based on a review of the aforementioned guidance documents and the baseline noise environment, the following daytime noise criteria are recommended for the Proposed Development Site:



*Table 10-3: Recommended Noise Limit Criteria*

Parameter	Emission Standard	Basis of Standard
Monday to Friday (07.00 to 19.00 hours)	<70 dB(A) L <sub>Aeq</sub> (1 hour)	BS 5228-1; Transport Infrastructure Ireland (TII)
Saturday (09.00 to 13.00)	<65 dB(A) L <sub>Aeq</sub> (1 hour)	

### 10.3 The Existing and Receiving Environment (Baseline Situation)

An environmental noise survey was conducted by AWN Consulting Limited to quantify the existing noise environment as part of the ProPG Inward Noise Impact Assessment Report (AWN Consulting Limited, February 2022), this report can be found in Appendix D. The survey was conducted in general accordance with ISO 1996: 2017: Acoustics – Description and measurement and assessment of environmental noise. Specific details are set out below.

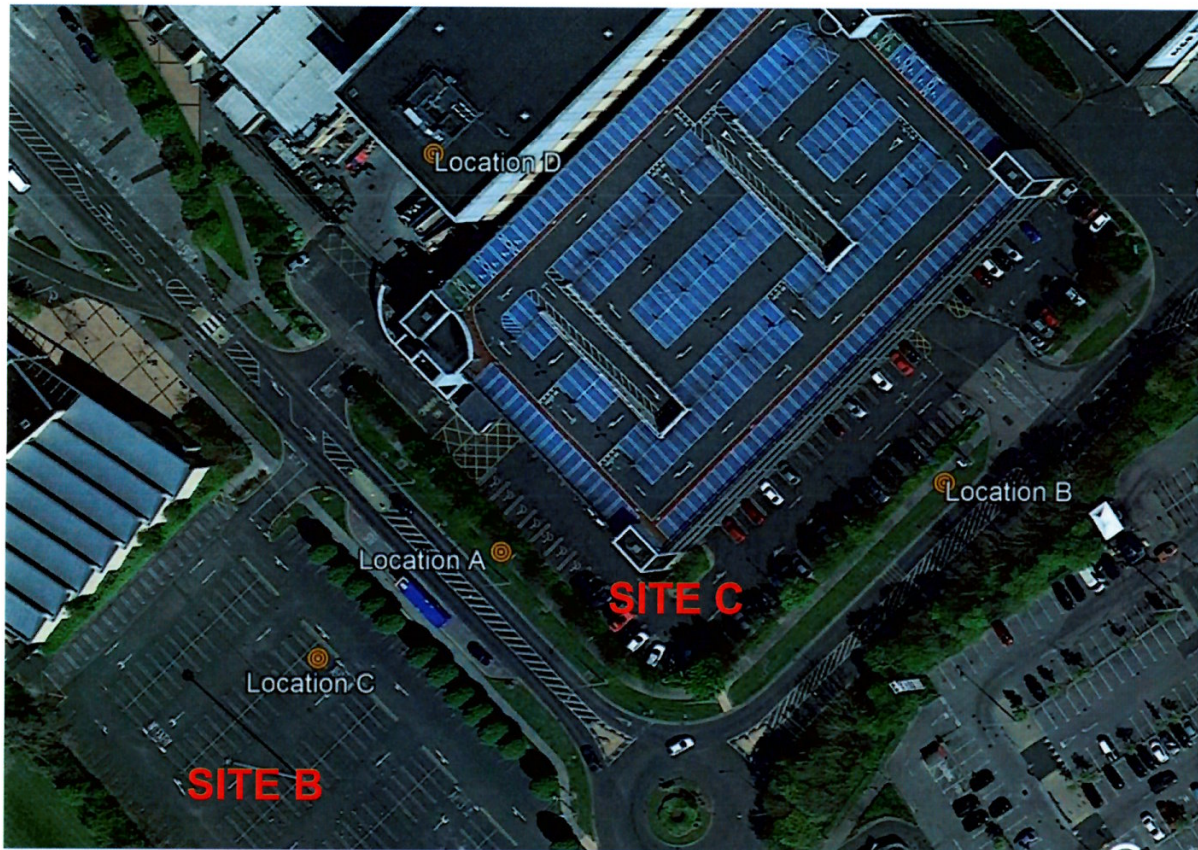
The noise survey was conducted between the 26<sup>th</sup> and 30<sup>th</sup> November 2021.

#### 10.3.1 Measurement Locations

The monitoring locations were as follows:

- Location A Attended measurements located within the western boundary of Site C in line with the proposed building facade.
- Location B Attended measurements located within the southern boundary of Site C in line with the proposed building facade.
- Location C Attended measurements located within the eastern boundary of Site B in line with the proposed building facade.
- Location D Unattended measurement undertaken on the roof of Penny's adjacent to Site C.

Figure 10-1 indicates the approximate location of each measurement position.



*Figure 10-1: Noise Survey Locations*

### 10.3.2 Measurement Parameters

The noise survey results are presented in terms of the following parameters:

- **L<sub>Aeq</sub>** is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period.
- **L<sub>AFMax</sub>** is the maximum sound pressure level recorded during the sample period.

The “A” suffix denotes the fact that the sound levels have been “A-weighted” in order to account for the non-linear nature of human hearing. All sound levels in this report are expressed in terms of decibels (dB) relative to  $2 \times 10^{-5}$  Pa.

### 10.3.3 Unattended Survey Results

L<sub>Aeq</sub> and L<sub>AFMax</sub> values were measured at 15-minute intervals over the duration of the survey. Figures 10-2 and 10-3 present the number of measured L<sub>Aeq,15-min</sub> and L<sub>AFMax</sub> events for each decibel level during the day and night periods for each location.

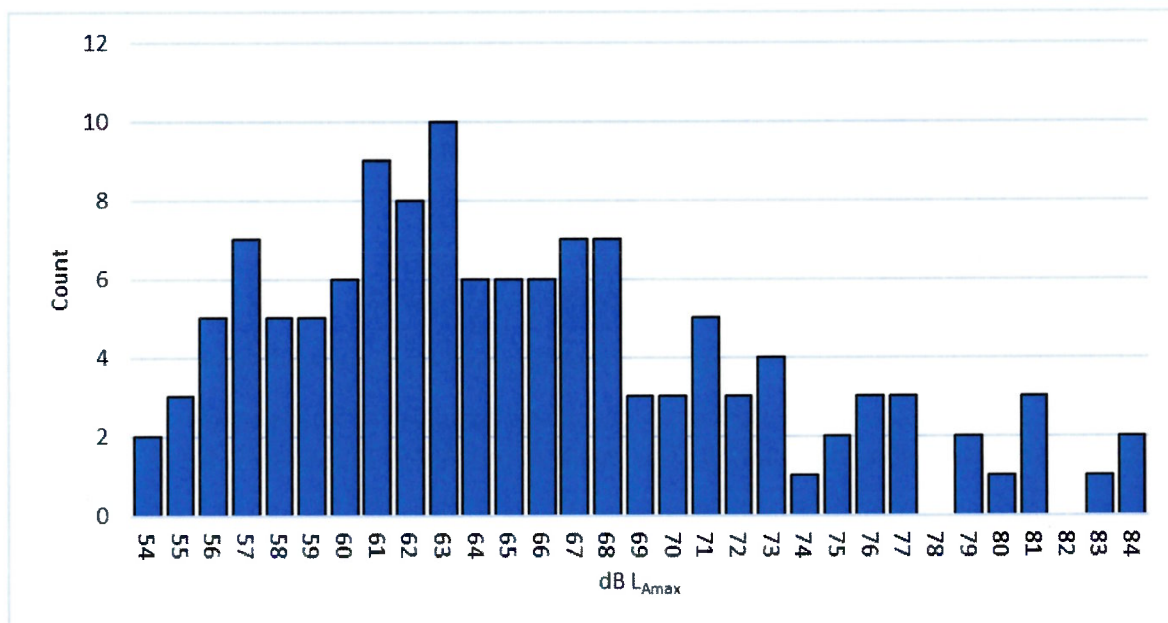


Figure 10-2: Number of  $L_{Amax}$  events at each decibel level measured during the night

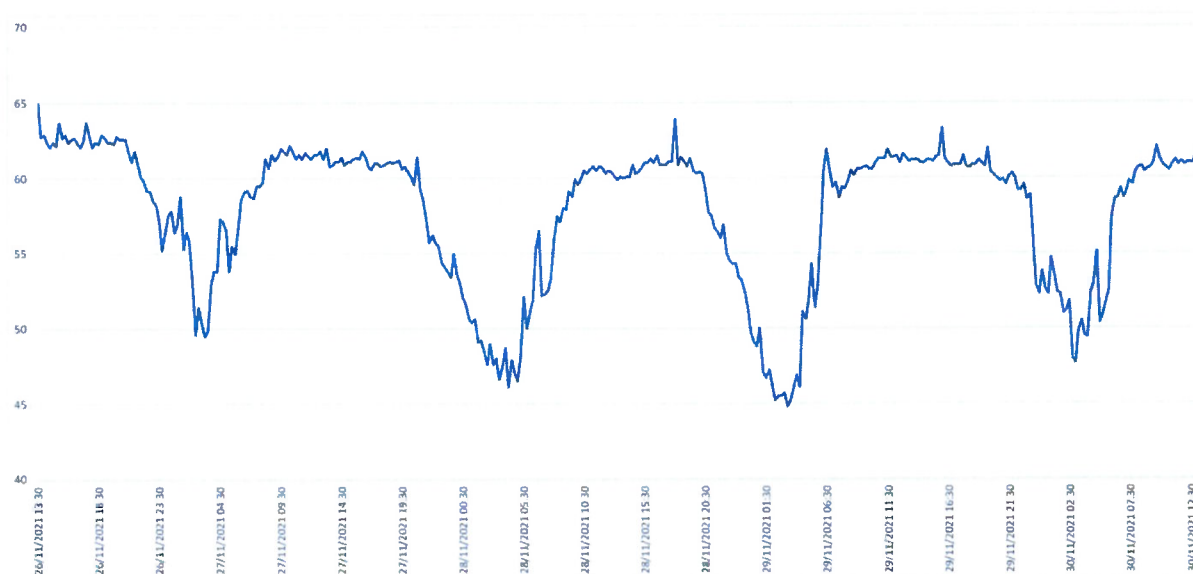


Figure 10-3: Measured  $L_{Aeq}$  over the duration of the survey

### 10.3.4 Attended Survey Results

#### Location A

Table 10-4 presents the average  $L_{Aeq,15min}$  noise levels at Location A.



*Table 10-4: Location A Noise Measurement Results*

Date and Time	L <sub>Aeq,15min</sub> dB(A)	L <sub>Amax,15min</sub> dB(A)
26/11/21 13:58	63.5	81.5
26/11/21 14:19	62.2	71.7
26/11/21 14:40	61.5	70.1
30/11/21 12:44	61.5	85.0
30/11/21 13:05	60.7	87.8
30/11/21 13:25	60.5	70.8

At location A noise was generally attributed to passing road traffic, buses utilising the local bus stop and nearby pedestrian activity. The average measured noise level was 62 dB L<sub>Aeq,15min</sub>.

#### *Location B*

Table 10-5 presents the average L<sub>Aeq,15min</sub> noise levels at Location B.

*Table 10-5: Location B Noise Measurement Results*

Date and Time	L <sub>Aeq,15min</sub> dB(A)	L <sub>Amax, 5min</sub> dB(A)
26/11/21 14:57	68.2	82.4
26/11/21 15:37	68.5	81.7
30/11/21 13:25	67.5	76.5
30/11/21 14:07	67.8	81.3
30/11/21 13:25	67.9	75.3

At location B noise was generally attributed to passing road traffic, movements in the car park and nearby pedestrian activity. The average measured noise level was 68 dB L<sub>Aeq,15min</sub>.

#### *Location C*

Table 10-6 presents the average L<sub>Aeq,15min</sub> noise levels at Location C.

*Table 10-6: Location C Noise Measurement Results*

Date and Time	L <sub>Aeq,15min</sub> dB(A)	L <sub>Amax,15min</sub> dB(A)
26/11/21 15:56	67.3	57.6
26/11/21 15:37	67.2	59.6
26/11/21 15:37	66.9	60.0
30/11/21 15:00	61.3	76.9
30/11/21 15:22	61.4	81.3
30/11/21 15:38	62.0	78.0



At location C noise was generally attributed to passing road traffic, buses utilising the local bus stop and nearby pedestrian activity. The average measured noise level was 65 dB L<sub>Aeq</sub>, 15min.

### 10.3.5 Noise Risk Assessment Conclusion

Giving consideration to the measures presented in the previous sections the initial site noise risk assessment has concluded that there is a medium level of risk across the site.

Additionally, the Stage 1 Noise Risk Assessment requires analyses of the LAFmax noise levels. The results indicate that LAFmax noise levels are unlikely to exceed 80dB more than 20 times per night on facades exposed to the main site road and hence the maxima levels will not increase the noise risk of the site.

ProPG states the following with respect to medium risks:

*Medium Risk As noise levels increase, the site is likely to be less suitable from a noise perspective and any subsequent application may be refused unless a good acoustic design process is followed and is demonstrated in an ADS which confirms how the adverse impacts of noise will be mitigated and minimised, and which clearly demonstrate that a significant adverse noise impact will be avoided in the finished development.*

Given the above it can be concluded that the development site may be categorised as Medium and as such an Acoustic Design Strategy will be required to demonstrate that suitable care and attention has been applied in mitigating and minimising noise impact to such an extent that an adverse noise impact will be avoided in the final development. It should be noted that ProPG states the following with regard to how the initial site noise risk is to be used:

*"2.12 It is important that the assessment of noise risk at a proposed residential development site is not the basis for the eventual recommendation to the decision maker. The recommended approach is intended to give the developer, the noise practitioner, and the decision maker an early indication of the likely initial suitability of the site for new residential development from a noise perspective and the extent of the acoustic issues that would be faced. Thus, a site considered to be high risk will be recognised as presenting more acoustic challenges than a site considered as low risk. A site considered as negligible risk is likely to be acceptable from a noise perspective and need not normally be delayed on noise grounds. A potentially problematical site will be flagged at the earliest possible stage, with an increasing risk indicating the increasing importance of good acoustic design."*

Therefore, the guidance contained in ProPG does not preclude residential development on sites that are identified as having medium or high-risk noise levels. It merely identifies the fact that a more considered approach will be required to ensure the developments on higher risk sites are suitably designed to mitigate the noise levels. The primary goal of the approach outlined in ProPG is to ensure that the best possible acoustic outcome is achieved for a particular site.

### 10.3.6 Noise

Noise is defined as any sound that has the potential to cause disturbance, discomfort or psychological stress to a person exposed to it, or any sound that could cause actual physiological harm to a person exposed to it, or physical damage to any structure exposed to it. In summary noise can be defined as any unwanted sound. Sound levels are expressed in decibels (dB) on a logarithmic scale, where 0dB is nominally the "threshold of hearing" and 120dB is nominally the "threshold of pain" (refer to Figure 10-1).

Background noise is defined as '*the steady existing noise level present without contribution from any intermittent sources. The A-weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90 per cent of a given time interval, T ( $L_{AF90,T}$ )*'. According to the EPA Noise Guidance NG4, an area of low background noise is one where the existing background noise levels measured during an environmental noise survey are as follows:

- Average Daytime Background Noise Level  $\leq 40\text{dB } L_{AF90}$ , and;
- Average Evening Background Noise Level  $\leq 35\text{dB } L_{AF90}$ , and;
- Average Night-time Background Noise Level  $\leq 30\text{dB } L_{AF90}$ .

The Proposed Development is considered to be a non-quiet area as per EPA screening guidelines. The following criteria are assessed for this determination:

- At least 3 km from urban areas with a population  $>1,000$  people;
- At least 10 km from any urban areas with a population  $>5,000$  people;
- At least 15 km from any urban areas with a population  $>10,000$  people;
- At least 3 km from any local industry;
- At least 10 km from any major industry centre;
- At least 5 km from any National Primary Route, and;
- At least 7.5 km from any Motorway or Dual Carriageway.

If the Site does not meet these criteria, it is not considered to be a quiet area as per the definition provided by the EPA. Due to the location of the Proposed Development, within a highly populated settlement, an area where multiple industrial/commercial facilities are operating, and within 2km of the M50 National Motorway, a low background noise would not be expected.

Quiet Area screening results can be viewed in Table 10-6.

Table 10-6: Quiet Area Screening of the Development Location

Quiet Area Screening of the Development Location			
Screening Question	Answer (Yes/No)		Screening Results
Is the site >3km away from urban areas with a population >1,000 people?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The Proposed Development is located in Blanchardstown which is an area with a population >1,000 people.
Is the site >10km away from urban areas with a population >5,000 people?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The Proposed Development is located in Blanchardstown which has a population >5,000 people.
Is the site >15km away from urban areas with a population >10,000 people?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The Proposed Development is located in Blanchardstown which has a population >10,000 people.
Is the site >3km away from any local industry?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The Proposed Development is located within 3km of local industry.
Is the site >10km away from any major industry centre?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The Proposed Development is located within 10km of a major industry centre.
Is the site >5km away from any national primary route?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The N3 is located >5km from the Proposed Development.
Is the site >7.5km away from any motorway or dual carriageway?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	The M50 is located ca 2km from the Proposed Development.
<b>QUIET AREA?</b>	<b>No</b>		<b>The Site does not meet these criteria it is not considered to be a quiet area.</b>

According to the EPA Guidance, NG4, where an area is determined not to be a 'quiet area', baseline monitoring should be conducted to determine if there is a low background noise. As the Proposed Development is located in an area which does not meet the criteria as per EPA screening guidelines, a low background noise would not be predicted. As such, baseline noise monitoring for the Site is recommended.

Figure 10-5 gives a depiction of typical sounds and their noise levels on a decibel scale.

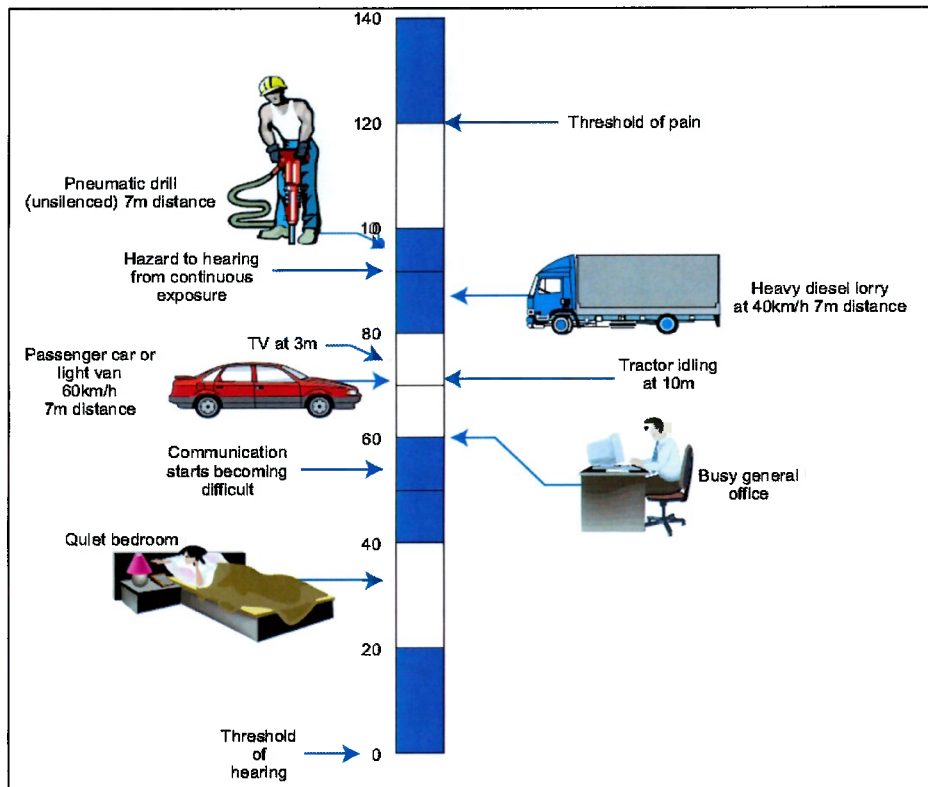


Figure 10-5: Scale and Indicative Noise Levels on the dB(A) Scale (Based on guidance taken from: Design Manual for Roads and Bridges, Volume 11 Consolidated Edition 1993)

## 10.4 Characteristics of the Proposed Development

### 10.4.1 Construction Phase

During the construction phase the main site activities will include, site clearance, excavation works, building construction, road works, and landscaping. This phase has the greatest potential noise and vibration impacts on its surrounding environment; however this phase will be of short-term impact.

A detailed construction programme has not been developed at this stage. However, the Proposed Development will include ground preparation works, site clearance and excavation, development of site infrastructure, construction of buildings and hardstanding areas and landscaping of the site including open soft landscaped areas, provision of utilities and associated civil works, foul and surface water drainage, and public lighting.

### 10.4.2 Operational Phase

During the operational phase of the development, no significant sources of noise or vibration are expected with the development. The primary source of outward noise in the operational context relates to any changes in traffic flows along the local road network and any operational plant noise used to serve the ancillary elements within the apartment buildings, and retail / commercial units.

Once the development is completed, the potential noise impacts to the surrounding environment are minimal. The residential aspect of the development is not expected to



generate any significant noise sources over and above those which form part of the existing environment at neighbouring residential areas (estate vehicle movements, children playing etc.) and hence no significant impact are expected from this area of the development site.

The main potential noise impact associated with the Proposed Development is considered therefore to relate to the generation of additional traffic to and from the site as a result of the Proposed Development. Potential noise impacts also relate to operational plant serving the apartment buildings such as heat pumps.

Once operational, there are no vibration sources associated with the development site.

## 10.5 Potential Impact of the Proposed Development

This section assesses the impact of the Proposed Development on the human environment. The noise-generating activities associated with the current Site are as follows:

- Site clearance, including excavation works;
- Building construction works;
- Trucks entering and exiting the Site.

### 10.5.1 Noise Sensitive Locations

The EPA define noise sensitive locations as '*any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or other area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels*'.

The nearest noise sensitive locations are residential properties which are located approximately 190m from the Proposed Development Site Boundary.

#### 10.5.1.1 Noise from Operational Traffic

Volume 2, Chapter 12 'Traffic' has been prepared by Clifton Scannell Emerson Associates Civil and Structural Consulting Engineers.

The Design Manual for Roads and Bridges (DMRB) Volume 11 Section 3 Part 7 (HD 213/11 – Revision 1) (The Highways Agency et al., 2011) states that "*changes in traffic volume on existing roads or new routes may cause either of the threshold values for noise to be exceeded. A change in noise level of 1dB LA10, 18h is equivalent to a 25% increase or a 20% decrease in traffic flow, assuming other factors remain unchanged and a change in noise level of 3dB LA10, 18h is equivalent to a 100% increase or a 50% decrease in traffic flow*".

No traffic routes are predicted to experience increases of more than 25% in total traffic flows during the Operational Phase and therefore no detailed assessment is required as per the DMRB Guidelines. Refer to Chapter 12 of the EIAR for a detailed traffic assessment report.

The impact of noise from operational traffic will be unnoticeable and will not have a negative impact.

### **10.5.1.2 Noise from On-site Plant & Equipment**

Noise and vibration can arise from the operation of fixed or mobile machinery used for the Construction Phase and from vehicular traffic during the Operational Phase. Noise prediction calculations have been completed for sound pressure levels from the use of external onsite plant and equipment up to 600m from the source. According to the inverse square law, it can be shown that for each doubling of distance from a point source, the sound pressure level decreases by approximately 6 dB. Table 9-7 below detail the noise emissions from the plant or machinery items to be used in the Proposed Development and the relevant  $L_{Aeq}$  values at the reference distances. The reference levels were calculated and projected for a range of distances from the source to the appropriate receptor using the following formula:

$$L_{Source} \approx L_{Ref} - 20 \cdot \log_{10}(R2/R1)$$

Where:

$L_{Source}$  = Sound Pressure Level at Initial Location

$L_{Ref}$  = Sound Pressure Level at the new Location

$R1$  = Distance from the noise source to initial location

$R2$  = Distance from noise source to the new location

The calculations make a number of assumptions such as:

1. There is a straight line between the source and observer.
2. Meteorological conditions are static.
3. There are no natural barriers that affect attenuation of noise other than distance.
4. All plant items are operating from a single source simultaneously and at full capacity.
5. All plant items are operating at the edge of the work area closest to the sensitive receptor.

The inverse square law is the logical first estimate of the sound you would get at a distant point in a reasonably open area. It is noted that the sound intensity from a point source will obey the inverse square law if there are no reflections or reverberation. If there are barriers between the source and the point of measurement, you are likely to get less than what the inverse square law predicts.

#### **10.5.1.2.1 Noise from Mobile Plant On-site**

During the Construction Phase, mobile machinery onsite includes loading shovels, excavators, wheel loaders, and dumper trucks. This machinery will operate in a cyclical fashion during daytime hours in which a period of full power is followed by a period of reduced power.

*BS 5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Noise* sets out typical noise levels for plant items. Table 10-7 sets out the plant items that will be used for facility construction, and their associated sound pressure levels:

*Table 10-7: Machinery associated with proposed construction activities and corresponding noise values*

Plant Item	Ref	dB(A) @ 10m	dB(A) @ 100m	dB(A) @ 200m	dB(A) @ 300m	dB(A) @ 400m	dB(A) @ 500m	dB(A) @ 600m
<b>Loading Shovel</b>	BS 5228-1	75	55	49	46	43	41	39
<b>Grab Machine / Excavator</b>	BS 5228-1	75	55	49	46	43	41	39
<b>Wheel Loader</b>	BS 5228-1	85	65	59	56	53	51	49
<b>Dumper</b>	BS 5228-1	82	62	56	53	50	49	47

Table 10-7 details the noise emissions from the mobile plant items to be used in the Construction Phase of the Proposed Development and the relevant LAeq values at the reference distances. The nearest noise sensitive locations are located approximately 190m from the Proposed Development Site Boundary. As is evident from Table 10-7, the predicted noise levels at 190m from the proposed activities are well within the recommended daytime noise levels of 70 dB(A) and 65 dB(A) as outlined within Table 10-3 of this chapter.

Due to the urban location of the Site, it is highly unlikely that noise generated by the Construction Phase will be audible to an extent which would result in adverse impacts at the nearest noise sensitive locations. It is further noted that any noise levels associated with the Construction Phase will be temporary, and machinery will be used on an intermittent basis during daytime working hours.

Furthermore, there are existing physical barriers between the Proposed Development Site and offsite NSLs which are likely to dissipate any noise levels generated at the subject Site and further reduce the likelihood of noise impacts at these NSLs as a result of construction machinery.

Appropriate mitigation measures, as outlined in Section 10.6 will be implemented to further reduce any potential impacts.

### 10.5.2 Potential Cumulative Impacts

Cumulative Impacts can be defined as “*impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project*”. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

Table 10-7 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

*Table 10-7 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	Green Mall (Also known as the Central Mall) & Yellow Mall	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>“The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use.”</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>



<b>FW18A/0168</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	<p>It is not expected that the Proposed Development will result in cumulative impacts in relation to noise with any existing or proposed offsite projects.</p>
<b>FW20A/0030</b> <b>(Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>
<b>FW20A/0018</b> <b>(Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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<b>FW19A/0017</b>	<b>Red Mall</b>	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>dac/145/19</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown S hoppingCent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
<b>19/4224</b>	<b>Red Mall</b>	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>



FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<b>FW18A/0116</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p>
<b>18/4234</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
<b>FW18A/0011</b>	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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### 10.5.3 “Do Nothing” Impact

A do-nothing scenario would result in the Site remaining as a surface car park site and a multistorey carpark. The existing noise and vibration levels will remain unchanged onsite and at nearby NSLs.

### 10.6 Avoidance, Remedial & Mitigation Measures

During the Operational Phase of the Proposed Development, the design and layout of the facility buildings will in itself serve as mitigation by virtue of the fact that the majority of onsite machinery and equipment will be located within fully enclosed buildings. This phase of the development is not expected to notably increase noise in the surrounding environment.

In order to control likely noise impacts caused by external operations in both the Construction and Operational Phases, mitigation measures as set out in *BS 5228-1: A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise* will be adopted;

- Selection of plant with low inherent potential for generating noise.
- Siting of plant as far away from sensitive receptors as permitted by site constraints.
- Avoiding unnecessary revving of engines and switch off plant items when not required.

- Keep plant machinery and vehicles adequately maintained and serviced.
- Proper balancing of plant items with rotating parts.
- Keeping internal routes well maintained and avoid steep gradients.
- Minimising drop heights for materials or ensure a resilient material underlies.
- Using alternative reversing alarm systems on plant machinery.
- Where noise becomes a source of resonating body panels and cover plates, additional stiffening ribs or materials should be safely applied where appropriate.
- Limiting the hours during which site activities likely to create high levels of noise are permitted.
- Appointing a site representative responsible for matters relating to noise.
- Monitoring typical levels of noise during critical periods and at sensitive locations.

During the works the contractor will comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration. In particular, the following practices, as outlined within the Construction Environmental Management Plan (CEMP), will be implemented during the construction phase:

- Erection of a barrier (e.g. Standard 2.4m high construction hoarding) to remove direct line of sight between noise source and receiver when construction works are being carried out in proximity to noise sensitive receivers.
- Establishing channels of communication between the contractor, local authority and residents.
- Appointing a site representative responsible for matters relating to noise.
- A noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels.
- Selection of plant with low inherent potential for generation of noise.
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints and implementation of noise reduction measures such as acoustic enclosures.
- Avoid unnecessary revving of engines and switch off plant when idle.
- All vehicles and mechanical plant used for the purpose of the works will be fitted with effective exhaust silencers and will be maintained in good and efficient working order. In addition, all diesel engine powered plant will be fitted with effective air intake silencers.



- All ancillary pneumatic percussive tools will be fitted with mufflers or silences of the type recommended by the manufacturers, and where commercially available, dampened tools and accessories will be used.

There will be vehicular movements to and from the Proposed Development that will make use of the existing roads and site access points. However, no traffic routes are predicted to experience increases of more than 25% in total traffic flows during the construction phase, therefore, no detailed assessment is required (DMRB Guidelines). Refer to Chapter 12 of the EIAR.

#### **10.6.1 “Worst Case” Scenario**

The worst-case scenario where mitigation measures fail for the Proposed Development, it is considered that localised noise will not cause any noise nuisance to nearby receptors.

### **10.7 Residual Impacts**

Residual Impacts are defined as ‘*effects that are predicted to remain after all assessments and mitigation measures*’. They are the remaining ‘environmental costs’ of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts.

Potential residual impacts from the Proposed Development were considered as part of this environmental assessment.

No residual impacts are anticipated.

### **10.8 Monitoring**

As outlined within the CEMP for the Site, a noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels.

Noise limits as outlined in Section 10.2.2 of this chapter will be complied with.

### **10.9 Interactions**

#### **10.9.1 Population and Human Health**

The impact assessment of noise and vibration has concluded that additional noise associated with the operation of on-site machinery will be intermittent and will not create any major negative impacts beyond the Site boundary. Mitigation and monitoring measures will be incorporated to further reduce the potential for noise generation from the Proposed Development. No human health impacts are anticipated as a result of noise from the Proposed Development.

### **10.9.2 Traffic**

The Proposed Development will have no significant impact on traffic volumes in the local network, and therefore traffic will not result in any significant increases of noise at sensitive receptors .

### **10.9.3 Biodiversity**

It is not considered that the Noise and Vibration effects of the Proposed Development will have an adverse impact on biodiversity in the local area. While the proposed Construction Phase will result in a temporary increase in noise and vibration, it is considered that this will not cause a significant disturbance to the local fauna including birds due to the existing established urban environment.

### **10.10 Difficulties Encountered When Compiling**

No difficulties were encountered.

### **10.11 References**

Design Manual for Roads and Bridges Volume 11 Section 3 Part 7 (HD 213/11 – Revision 1) (The Highways Agency et al., 2011);

BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise.

ISO 1996-1:2016 Acoustics - Description, measurement and assessment of environmental noise. Part 1: Basic quantities and assessment procedures

ISO 1996-2:2017 Acoustics - Description, measurement and assessment of environmental noise Part 2: Determination of sound pressure levels

ISO 9613-1:1993 Acoustics - Attenuation of sound during propagation outdoors -- Part 1: Calculation of the absorption of sound by the atmosphere

ISO 9613-2:1996 Acoustics - Attenuation of sound during propagation outdoors -- Part 2: General method of calculation

Environmental Protection Agency (2016) Guidance Note for Noise (NG4): Licence Applications, Surveys and Assessments in Relation to Scheduled Activities.

Guidelines for the Treatment of Noise & Vibration in National Road Schemes, National Roads Authority, Revision 1, 25th October 2004

## 11 LANDSCAPE AND VISUAL ASSESSMENT

### 11.1 Introduction

This Chapter assesses the effects of the Proposed Development on the landscape and visual amenities of the area and details the potential direct and indirect effects of the Proposed Development on landscape fabric, character and quality, and the resulting impact on visual amenity.

The aim of a landscape and visual assessment is to identify the elements of the landscape which make it unique and the extent to which it is possible to alter these landscapes before unacceptable consequences arise. Landscape character represents the individuality of an area based on its particular combination of features and elements. The purpose of this assessment is to evaluate the existing landscape character of the Site and surroundings, to assess the visual impact of the Proposed Development and to identify landscape designations and planning policies that may concern the subject Site and its environs.

The assessment has been undertaken in accordance with best practice, legislation and guidance notes. The methodology used is based on the Environmental Protection Agency Documents; The draft *Revised Guidelines on the Information to be contained in Environmental Impact Statements (2015)* and subsequent Advice Notes, and their precursor *The Guidelines on the Information to be contained in Environmental Impact Statements (2002)* and *Advice notes on current practise in the preparation of Environmental Impact Statements (2003)*. It is also based on the Department of the Environment, Heritage and Local Governments Document; *Architectural Heritage Protection, Guidelines for Planning Authorities, 2004* and the Landscape Institute and Institute of Environmental Management & Assessment Document *Guidelines for Landscape and Visual Impact Assessment (2013)*.

The aforementioned documents recommend baseline studies to describe, classify and appraise the existing landscape and visual properties, focusing on any sensitive receptors in the area and the ability of the landscape to accommodate the Proposed Development changes that will occur at the subject Site. This is established through a collective process of desktop study and onsite survey work. Once the baseline conditions are established it allows for the identification of impacts, and an assessment of their magnitude and significance on the landscape character and visual amenities of the area.

A judgement on the sensitivity of the landscape is made from a combination of the susceptibility of the landscape to development, and therefore change, and the value attached to that landscape. This is determined by way of existing designations, both legislative and non-legislative for scenic beauty, landscape quality, recreational value, significant importance, rarity etc. Visual sensitivity is determined by a combination of judgements about the susceptibility of visual receptors such as dwellings, roads, scenic spots etc. to changes in visual amenity and the value attached to these views. The *Guidelines for Landscape and Visual Impact Assessment* state that the aim is "to establish the area in which the development will be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of the views and visual amenity at those points".

## 11.2 Study Methodology

The assessment of the landscape and visual impacts for this development was informed by the guidance documents listed below.

- Fingal County Council Development Plan 2017-2023
- The Landscape Institute, 'Guidelines for Landscape and Visual Impact Assessment', (3<sup>rd</sup> Edition) 2013
- Technical Information Note on Townscape Character Assessment, 2016, published by the Landscape Institute
- 'The Countryside Agency and Scottish Natural Heritage – Landscape Character Assessment Guidance for England and Scotland' 2002
- Environmental Protection Agency (EPA) Draft Guidelines on the Information to be contained in Environmental Impact Statement (2017)
- EPA Advice notes on current practice in the preparation of environment impact statements (2003)
- EPA - Environmental Management Guidelines - Environmental Management in the Extractive Industry
- Section 177F of the Planning and Development Act 2000 (as amended)
- A Handbook on Environmental Impact Assessment, Scottish Natural Heritage
- Journal of Environmental Psychology, Visual Thresholds for Detection, Recognition and Visual Impact in Landscape Settings (H. Shang and I.D. Bishop, 2000)
- Landscape design with plants, Brian Clouston
- Atlas of the Irish rural landscape, Aalen, Whelen, Stout
- Urban Development and Building Height Guidelines for Planning Authorities (UD) (BHG) (2018)

### 11.2.1 Assessment Criteria

The EPA "*Guidelines on the information to be contained in an environmental impact statement*" gives an indication of the range of environmental topics which may be organised under the heading of landscape i.e. character, context, historical landscapes, views and prospects. These headings can be simplified into "Visual impacts" and "Landscape impact". "Landscape impacts" deal with how the character or "feeling" of the area will be affected while "Visual impacts" describes how and whether the development will be visible and how the appearance of the area will change.

There are four key aspects of any impact;

1. Quality/character;
2. Significance/magnitude or intensity;
3. Duration; and
4. Consequence (who will be affected and their sensitivity, can it be avoided mitigated or remedied).



Tables 11-1 to 11-2 outline the criteria and terminology used to make the landscape and visual impact evaluations in this report. Table 11-3 to Table 11-5 outlines Visual Sensitivity Criteria and Landscape Magnitude Criteria and Visual Magnitude Criteria, respectively.

*Table 11-1: Landscape Sensitivity Criteria*

Class	Criteria
<b>High</b>	<p>Landscape characteristics or features with little or no capacity to absorb change without fundamentally altering their present character.</p> <p>Landscape designated for its international or national landscape value.</p> <p>Outstanding example in the area of well cared for landscape or set of features</p>
<b>High-Medium</b>	<p>Landscape characteristics or features with a low capacity to absorb change without fundamentally altering their present character.</p> <p>Landscape designated for regional or county-wide landscape value where the characteristics or qualities that provided the basis for their designation are apparent.</p> <p>Good example in the area of reasonably well cared for landscape with notable landscape features.</p>
<b>Medium</b>	<p>Landscape characteristics or features with moderate capacity to absorb change without fundamentally altering their present character.</p> <p>Landscape designated for its local landscape value or a regional designated landscape where the characteristics and qualities that led to the designation of the area are less apparent or are partially eroded or an undesignated landscape which may be valued locally – for example an important open space.</p> <p>An example of a landscape or a set of features which is neutral or mixed character.</p>
<b>Medium – Low</b>	<p>Landscape characteristics or features which are reasonably tolerant of change without detriment to their present character.</p> <p>No landscape designation present or of medium to low local value, or an example of a common or un-stimulating landscape or set of features and conditions.</p>
<b>Low</b>	<p>Landscape characteristics or features which are tolerant of change without detriment to their present character.</p> <p>No designation present or of low local value. An example of monotonous unattractive visually conflicting or degraded landscape or set of features.</p>

Table 11-2: Visual Sensitivity Criteria

Class	Criteria
<b>High</b>	Users of outdoor recreational facilities, on recognised national cycling or walking routes or in national designated landscapes.  Dwellings with views orientated towards the Proposed Development.
<b>High – Medium</b>	Users of outdoor recreational facilities, in locally designated landscapes or on local recreational routes that are well publicised in guide books.  Road and rail users in nationally designated landscapes or on recognised scenic routes, likely to be travelling to enjoy the view.
<b>Medium</b>	Users of primary transport road network, orientated towards the Development, likely to be travelling for other purposes than just the view.  Dwellings with oblique views of the Proposed development.
<b>Medium – Low</b>	People engaged in active outdoor sports or recreation and less likely to focus on the view.  Eg: outdoor workers – agriculture, horticulture  Primary transport road network and rail users likely to be travelling to work with oblique views of the Development or users of minor road network.
<b>Low</b>	People engaged in work activities indoors, with limited opportunity for views of the Development.

Table 11-3: Landscape Magnitude Criteria

Class	Criteria
<b>Very High</b>	Very extensive, highly noticeable change, affecting most key characteristics and dominating the experience of the landscape; and, Introduction of highly incongruous development.
<b>High</b>	Extensive, noticeable change, affecting many key characteristics and the experience of the landscape; and, Introduction of many incongruous elements.
<b>Medium</b>	Noticeable change to a significant proportion of the landscape, affecting some key characteristics and the experience of the landscape; and Introduction of some uncharacteristic elements.
<b>Low</b>	Minor change, affecting some characteristics and the experience of the landscape to an extent; and, Introduction of elements that are not uncharacteristic.
<b>Very Low</b>	Little perceptible change.

Table 11-4: Visual Magnitude Criteria

Class	Criteria
<b>Very High</b>	The development would dominate the existing view.
<b>High</b>	The development would cause a considerable change to the existing view over a wide area or an intensive change over a limited area.
<b>Medium</b>	The development would cause moderate changes to the existing view over a wide area or noticeable change over a limited area.
<b>Low</b>	The development would cause minor changes to the existing view over a wide area or moderate changes over a limited area.
<b>Very Low</b>	No real change to perception of the view. Weak, not legible, and/ or indiscernible.

Table 11-5: Categories of Landscape and Visual Significance of Impact

Degree of significance	Description of Landscape	Impact Description of Visual Impact
<b>Major</b>	<p>Substantial alteration to elements /features of the baseline (pre-development) conditions.</p> <p>Notably affect an area of recognised national landscape quality.</p> <p>Substantial alteration to the character, scale or pattern of the landscape.</p>	<p>Major/substantial alteration to elements/features of the baseline(pre-development) conditions.</p> <p>Where the Proposed Development would cause a very noticeable alteration in the existing view.</p> <p>This would typically occur where the Proposed Development closes an existing view of a landscape of regional or national importance and the Proposed Development would dominate the future view.</p>
<b>Moderate-Major</b>	This category is a combination of descriptions of Major listed above and Moderate below. These combinations are discussed within the assessment of each landscape or visual receptor when they occur.	
<b>Moderate</b>	<p>Alteration to elements/features of the baseline conditions.</p> <p>Affects an area of recognised regional landscape quality.</p> <p>Alteration to the character, scale or pattern of the local landscape.</p>	<p>Alteration to one or more elements/features of the baseline conditions such that post development character/attributes of the baseline will be materially changed.</p> <p>This would typically occur where the Proposed Development closes an existing view of a local landscape and the Proposed Development would be prominent in the future view.</p>
<b>Moderate-Minor</b>	This category is a combination of descriptions of Moderate listed above and Minor below. These combinations are discussed within the assessment of each landscape or visual receptor when they occur.	
<b>Minor</b>	<p>A minor shift away from baseline conditions.</p> <p>The Development partially changes the</p>	<p>A minor shift away from baseline conditions.</p> <p>This occurs where change arising from the alteration would be discernible but the underlying character /</p>



Degree of significance	Description of Landscape	Impact Description of Visual Impact
	character of the site without compromising the overall landscape character area.	composition / attributes of the baseline condition will be similar to the pre-development.  It would also occur where the Proposed Development newly appears in the view but not as a point of principal focus or where the Proposed Development is closely located to the viewpoint but seen at an acute angle and at the extremity of the overall view.
<b>Negligible</b>	No or very little change from baseline conditions. Change not material, barely distinguishable or indistinguishable	Where there is no discernible improvement or deterioration in the existing view.
<b>No Impact</b>	The Development would not affect the landscape receptor.	The Development would not affect the view

The significance of identified landscape and visual impacts is established through a simple matrix, which measures the magnitude of change against landscape or visual sensitivity. The resulting impacts are classed Major, Moderate-Major, Moderate, Minor, Negligible/None.

Therefore, as the sensitivity of a landscape increases from Low to High, and the Magnitude of Change increases from Very Low to Very High the predicted impacts also increase.

The example matrix table below (Table 11-6) is used to summarise the findings from the criteria tables. By combining sensitivity (along the top) with predicted magnitude of change (along the side) a predicted impact/ effect is reached. This format is applicable to both landscape impacts and visual impacts.

Table 11-6: Example Matrix

Example Matrix (Professional judgement applied at every stage of assessment and matrix only used to check consistency)		Sensitivity				
		High	High / medium	Medium	Medium / low	Low
Magnitude	Very High	Major	← →	Major	← →	Mod-Major
	High	Major	← →	Mod-Major	← →	Moderate
	Medium	Mod-Major	← →	Moderate	← →	Minor
	Low	Moderate	← →	Minor	← →	Negligible
	Minor	Minor	← →	Negligible	← →	Negligible / None

Intermediate sensitivity ratings (as per the criteria) would lead to a series of impacts that lie between those stated above if a matrix was applied to the assessment. Professional



judgement is then used to determine the degree of impact. e.g. high-medium sensitivity combined with medium magnitude would equate to a Moderate+ impact and a decision needs to be made to determine if this impact is Moderate or Moderate-Major. Intermediate magnitude ratings can also be arrived at during the assessment and a similar method is also applied here.

Impacts above Moderate are considered Significant (presented in dark grey in the example matrix).

Where intermediate impacts are arrived at, particular care should be taken at the upper and lower limits of the significance threshold i.e. between Moderate and Moderate-Major (presented in lighter grey in the example matrix). These impacts may require additional explanation as to why the decision was made to judge the impact as either significant or not significant.

In addition to the impacts which sensitivity combined with the magnitude of change generate, there are a number of other factors which are taken into account when preparing the landscape and visual assessment.

Development is often viewed as permanent and/or perceived to have a negative impact, it is therefore important to emphasise that change created by development can result in beneficial outcomes, and may also be temporary, short-term or indeed reversible. This assessment also considers and identifies both the 'Type' and 'Duration' of the potential impacts. The following terminology has been used where appropriate.

#### 11.2.1.1 Type of Visual Impacts

Table 11-7 below outlines the criteria for the classes of visual impacts that may be associated with a development.

*Table 11-7: Type of Visual Impacts*

Class	Criteria
<b>Beneficial:</b>	A positive impact which will improve or enhance the landscape character or viewpoint.
<b>Neutral</b>	A neutral impact which will neither enhance nor detract from the landscape character or viewpoint.
<b>Negative</b>	A negative impact which will detract from the existing landscape character or viewpoint.

#### 11.2.1.2 Duration of Impacts

Table 11-8 below outlines the duration of impacts and the class and activity associated with this.

*Table 11-8: Duration of Impacts*

Class	Criteria
<b>Temporary</b>	Impacts lasting one year or less
<b>Short-term</b>	Impacts lasting one to seven years
<b>Medium-term</b>	Impacts lasting seven to twenty years
<b>Long-term</b>	Impacts lasting twenty to fifty years
<b>Permanent</b>	Impacts lasting over fifty years

The intensity of the potential impact of the Proposed Development on the landscape and the visual amenity of the area is assessed using the terminology as defined in Table 11-9.

*Table 11-9: Criteria for Assessing Impact Magnitude and Extent*

Impact Magnitude	Definition
<b>Imperceptible Impact:</b>	An impact capable of measurement but without noticeable consequences
<b>Minor Impact:</b>	An impact which causes no noticeable changes in the character of the environment without affecting its sensitivities
<b>Moderate Impact:</b>	An impact that alters the character of the environment in a manner that is consistent with the existing and emerging trends
<b>Significant Impact:</b>	An impact which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
<b>Profound Impact:</b>	An impact which obliterates sensitive characteristics

The duration of the effect (i.e. permanent or temporary, short, medium or long-term) were also taken into account in this assessment and the following duration of impacts apply:

- Temporary Impact - Impact lasting for one year or less.
- Short Term Impact - Impact lasting one to seven years.
- Medium Impact - Impact lasting seven to fifteen years.
- Long Term Impact - Impact lasting fifteen to sixty years.
- Permanent Impact - Impact lasting over sixty years.

The classification of the quality of the impact as described by the EPA is as follows:

- Positive Impact – A change which improves the quality of the environment.

Neutral Impact – A change which does not affect the quality of the environment.  
Negative Impact – A change which reduces the quality of the environment.

### 11.2.2 Study Area

The initial study was determined by the production of a Zone of Theoretical Visibility (ZTV) (see Figure 10-1 below). As it would obviously be impossible to assess potential visibility from every angle or potential viewpoint, the very wide geographical area covered by the ZTV was reduced by field study and using standardised viewpoint distances from the source of impact.

As one moves away from any type of development in the landscape, it will become less perceptible with distance. It is common practice to consider the viewpoint distance as laid out in Table 11-10 Viewpoint Distance, below.

Table 11-10 identifies and describes the impact of a viewpoint and the distances associated with these visual impacts.

*Table 11-10: Viewpoint Distance*

Viewpoint Distance	Description
<b>0-2km</b>	It is generally accepted that a development located approximately 2km or less from a viewer would be close enough to allow identification of significant detail. Any positions within this range with open uninterrupted views of a development would generally receive the greatest visual impacts.
<b>2-5km</b>	At this distance, visibility of a development site becomes more general, with viewers in open uninterrupted positions able to identify general form, colour/tone and textural contrast, but losing the more focused detail achievable from closer positions. Impacts at this distance are generally less than those found between 0-2km.
<b>5-10km</b>	Beyond 5km visual prominence quickly diminishes. Certain circumstances/light conditions etc. have potential to allow certain types of development and material finishes to be perceived. The development increasingly becomes part of the general background/distance views. Upwards of 15km distance, developments quickly become minor features within the landscape and considered imperceptible to the average human eye. The impact of the development diminishes as the developments becomes part of the general background/distance views.

The field study also revealed that a number of different elements on the ground have a bearing on the visibility of the Proposed Development:

- The site is bounded by existing vegetation along the western boundary.
- The Site of the Proposed Development is made up of two areas of carparking and sections of roadway.
- The western and southern boundary of the Site currently support Hedgerow/treelines of varying quality. The western site boundary, that separates the car park from the Major Town Centre zoned lands, comprises a metal fence and semi-natural

hedgerow/treeline, with species such as Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Hawthorn *Crataegus monogyna*, Dog rose *Rosa canina*, Bramble *Rubus fruticosus* and Ivy *Hedera sp.* present. This vegetation is largely being retained in the landscape plan

- The southern corner boundary treeline, separating the Site from AIB, comprises largely of non-native, ornamental species and was likely planted within the last few decades. A previous townland boundary was once present in the adjoining AIB site and appears to have been removed in the late 90's early 00's from a review of aerial photography. This is further supported by survey of the existing vegetation which indicates planting is of ornamental species and approximately 20-25 years old. Species recorded here include Horse chestnut *Aesculus hippocastanum*, Ash, Bramble and Whitebeam *Sorbus hibernica*. It is planned to remove this treeline to allow for an access road to the Fingal CoCo lands to the west.
- The rest of the trees at the Site are planted street trees at regular intervals, with maintained grass verges as understorey.

### 11.2.3 Zone of Theoretical Visibility

The term Zone of Theoretical Visibility (ZTV) is used to describe the area over which a development can theoretically be seen. The ZTV used in this report is produced using software from VU.City. ZTV studies reflect ten different height bands, colour-coded to identify exactly how much of the building you can see from any given location. The screening effect of surrounding buildings is taken into account but the screening effect of vegetation is not.

The ZTV prepared for this Proposed Development which has been prepared based on the massing model of the design is presented in Figure 10-1. Areas identified in red on this figure are the locations where theoretically the Proposed Development is visible from. The ZTV was used to select the locations of the verified images which form the basis of the Photo Montage Report prepared by Visual Labs. The ZTV does not take into account screening from vegetation. Verified images taken at the identified locations have determined that the Proposed Development is not visible at those locations due to screening from vegetation (as detailed in Section 10.5 and in the Photo Montage Report prepared by Visual Labs included in Appendix E).



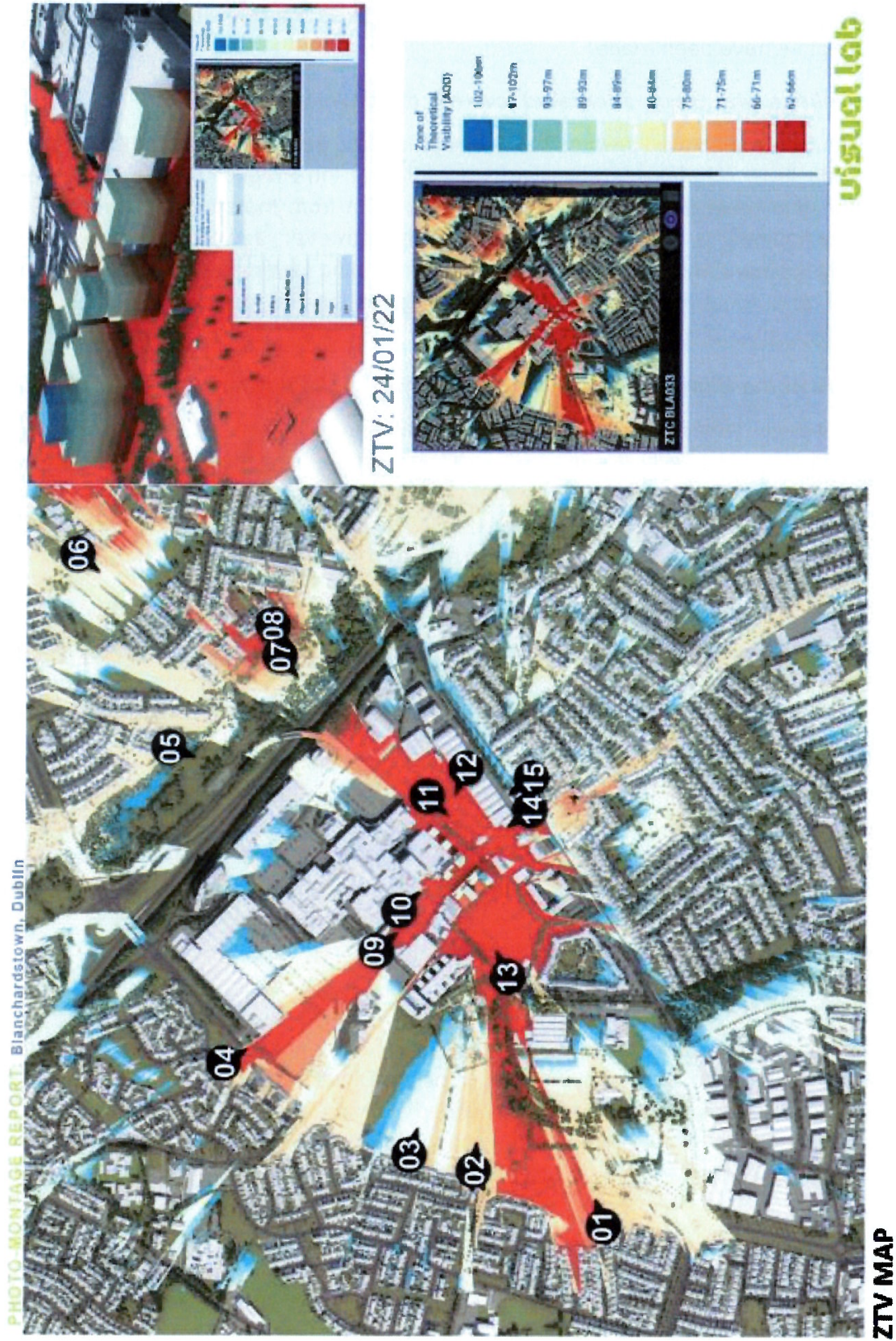


Figure 11-1: Zone of Theoretical Visibility (Visual Labs, 24/01/2022) showing locations of verified images

#### 11.2.4 Potential Receptors

Following the production of the ZTV and analysis of the Photo Montage Report provided by Visual Labs (February 2022), which is included in Appendix E, the following assessments of potential receptors have been made.

##### 11.2.4.1 Dwellings with views orientated towards the development

Dwellings with views orientated towards the development are generally accepted as having a high visual sensitivity. The closest dwelling houses facing the Proposed Development are located to the southeast and southwest, 178m and 180m from the site respectively. The Proposed Development is visible from these locations, however, due to the nature of the Proposed Development and the highly urbanised surrounding landscape, it is not predicted that there will be a negative impact on these dwellings as the Proposed Development is in context with the surrounding environment.

##### 11.2.4.2 Users of the High Amenity area (Tolka Valley) to the north/northeast of the site

There is a zoned High Amenity area directly to the north/northeast of the site. Users of outdoor recreational facilities, in locally designated landscapes or on local recreational routes are generally accepted as having a high to medium visual sensitivity. There currently appears to be only informal/infrequent use of these lands indicated by some desire lines (grass worn paths). The Zoning Objective and Vision for this type of zoned land are:

**Objective:** *Protect and enhance high amenity areas.*

**Vision:** *Protect these highly sensitive and scenic locations from inappropriate development and reinforce their character, distinctiveness and sense of place. In recognition of the amenity potential of these areas opportunities to increase public access will be explored.*

Due to the distance from the Proposed Development to this land, the existing boundary vegetation of the zoned land, the existing and proposed boundary landscaping, the existing buildings located to the north and northeast of the site and the high likelihood that any potential users views within these zoned lands will be orientated away from the development and along the river, it is reasonable to assume there will be no/infrequent views of the Proposed Development from this area. Section 11.4 discusses this further.

##### 11.2.4.3 Users of Major Town Centre Zoned Lands

The Major Town Centre zoned lands in use by a Sports & Leisure Club lies adjacent to the southwest of the Proposed Development. The Proposed Development will be visible to users of this facility, however as this is located in an already urban environment, and it situated on lands zoned MC - Major Town Centre with the zoning objective “to protect, provide for and/ or improve major town centre facilities”, it is not foreseen that users of this area will be negatively impact.

##### 11.2.4.4 Outdoor workers

People engaged in outdoor work are not likely to focus on the surrounding view and are generally accepted as having medium to low visual sensitivity. Due to the highlight urban and industrial nature of the surrounding landscape, it is not expected that outdoor workers will be impacted by the Proposed Development.



#### **11.2.4.5 Road / transport users**

Users of the main roads close to the Proposed Development are generally accepted as having medium to low visual sensitivity. The Navan Road (N3) and the Snugsborough Road (R843) are the main roads in close proximity to the Site of the Proposed Development. The R843 Snugborough Road is a two-way regional road located to the southwest of the subject site. The R843 connects the site with Clonsilla to the south and Rosemount Business Park to the north. The R121 Blanchardstown Road South is a two-way regional road also located to the northwest of the Proposed Development Site.

Views from the Navan Road (N3) and the R121 Blanchardstown Road South blocked due to existing vegetation and the existing buildings located to the north, northwest and northeast of the Site of the Proposed Development. Views of the Proposed Development from the R843 Snugborough Road is visible however it is not foreseen that road users will be impacted in anyway due to the already existing urban and industrial nature of land use near this road.

The Proposed Development is visible from the section of Road C and Road D and the associated roundabout junction, verges and footpaths that runs through the centre of the Site (otherwise referred to as the '*existing access road within Blanchardstown Town Centre*'). It is not predicted this will cause any impacts on road users as the Proposed Development is in line with the surrounding land use and the external façade of the Proposed Development blends in with the surrounding buildings in the area.

No other road or transport route is orientated directly towards the development within 1km.

#### **11.2.4.6 Indoor workers**

People engaged in work activities indoors, with limited opportunity for views of the development are generally accepted as having a low visual sensitivity.

### **11.3 The Existing and Receiving Environment (Baseline Situation)**

The Proposed Development Site is located at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. The Proposed Development Site relates to the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the southeast of the Blanchardstown Centre and a section of Road C and Road D, including the associated roundabout junction, verges and footpaths. Blanchardstown Town Centre is located approximately 10km northwest of Dublin City Centre and approximately 1km north of the village of Blanchardstown.

The Proposed Development comprises two (2No.) sites which are separated by the Blanchardstown Centre Ring Road. The Proposed Development Site occupies an area of 2.55 hectares (Ha) and is accessed via the Blanchardstown Centre Ring Road which intersects the Proposed Development Site from east to west.

Site C, Library Car Park, is currently a surface area carpark. As can be seen in Figures 11-2 and 11-3, the current site is lined to the south and east with hedgerows and treelines.

The vegetation present on the southern boundary is typical of an historic hedgerow boundary. This hedgerow is visible on Historic 6 Inch (1837 – 1842) mapping indicating that it is historic and is of Cultural Heritage significance, providing landscape character to the site.

The planting on the eastern boundary runs along the old Coolmine Townland Boundary. From a review of aerial imagery of the site during the Desktop Study, it appears that the original planting was removed in the late 1990s/2000 for the development of the site to the southeast. The original boundary has been removed and replaced with ornamental / cultivated varieties of plants.



*Figure 11-2: Site C Library Car Park - Existing View*

Figure 11-3 shows the undefined street edge entering into the main shopping centre area. The library to the west has a blank façade and the area is devoid of active frontages.



*Figure 11-3: Site C Library Car Park - Existing View*

Site B, Blue Car Park, currently comprises of an existing multi story carpark. As detailed in Figures 11-4 and 11-5 the existing façade is a low-quality façade. There are no defined street edges or active frontages.





*Figure 11-4: Site B Blue Car Park - Existing View*



*Figure 11-5: Site B Blue Car Park - Existing View*

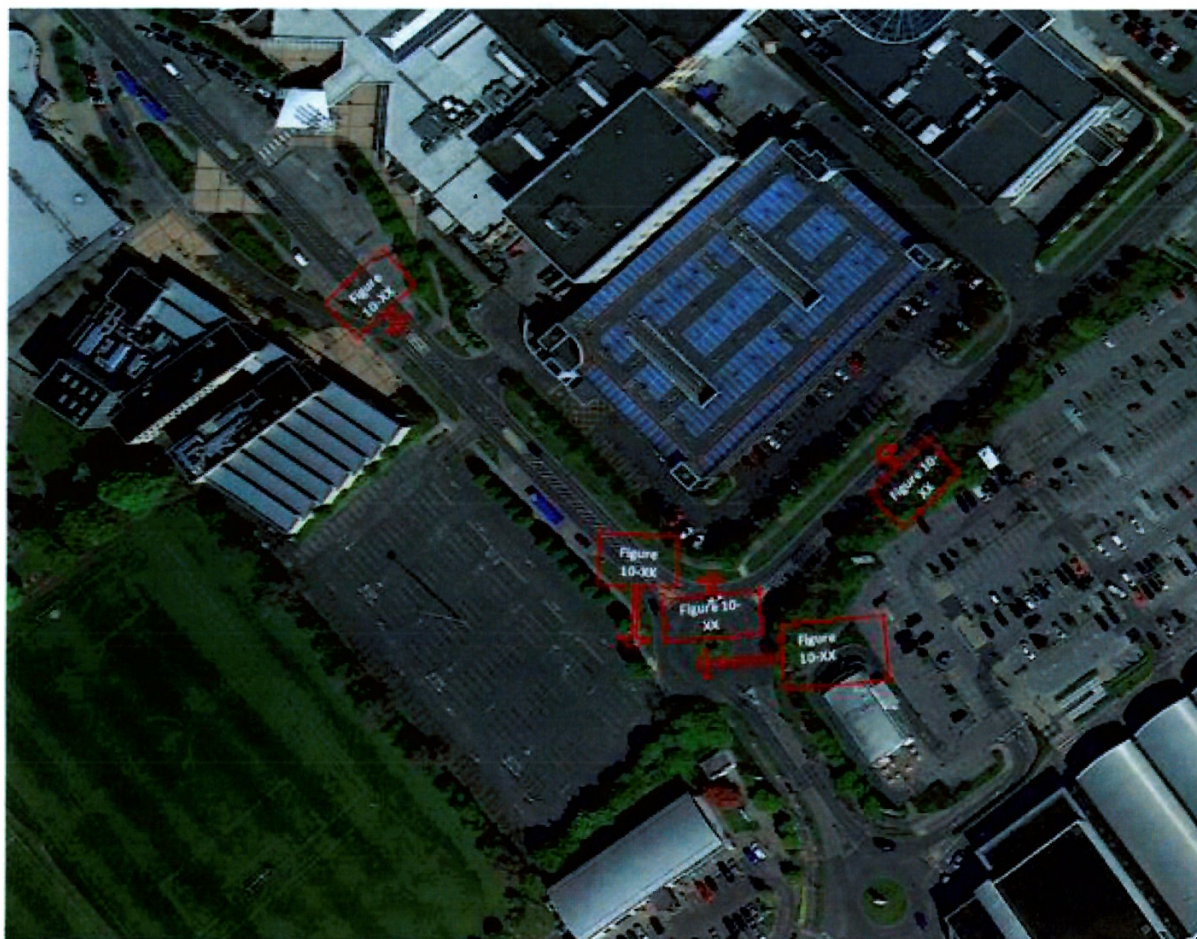
Figure 11-6 shows the existing view of Site B (library carpark) and Site C (blue carpark) from the Blue Mall area. The image shows that there is no definition of the street edges. The overall area is a car dominated environment. There are no active frontages.





*Figure 11-6: Site B&C, Existing View*

Figure 11-7 shows the locations where the views detailed in Figures 11-2 to 11-6 have been captured from above to show the existing environment.



*Figure 11-7: Aerial View of Existing Environment for Site of Proposed Development*

### 11.3.1 Topography, Soils and Geology

The topographical survey of the Proposed Development Site indicated that the overall topography ranges from approximately 62.5meters above ordnance datum (maOD) in the south to 60.7maOD in the north (i.e., Site C).

- The southern portion of the Proposed Development Site (Site B) generally falls from west (62.5maOD) to east (61.8maOD) at gradients ranging from 1/80 to 1/150 (i.e., towards the existing roundabout adjacent to the northeast corner of Site B).
- The northern portion of the Proposed Development Site (Site C) generally falls from south (62.1maOD) to northeast (60.7mOD) at a gradient of approximately 1/100 (i.e., following the gradient of the adjacent Blanchardstown Town Centre Ring Road).

The soils beneath the Proposed Development Site have been mapped by Teagasc (Teagasc, 2022) as 'Urban'. The subsoils or quaternary sediments beneath the Proposed Development Site are mapped by the GSI (GSI, 2022) as 'till derived from limestones' (TLs).

### 11.3.2 Physical Townscape/Landscape Character

The Site of the Proposed Development is currently under commercial land use (i.e., carparking) and the landscape is dominated by the built environment. Site C, blue carpark, is bordered to the northwest and southwest by a sparsely populated treeline. Site B, library carpark is bound to the southwest by Major Town Centre zoned lands in use by a Sports & Leisure Club, to the northwest by Blanchardstown Library and offices, and to the southeast by AIB Blanchardstown. A dry drainage ditch was identified along the southwest boundary of the Proposed Development Site during the site walkover undertaken by Enviroguide Consulting on the 2<sup>nd</sup> September 2021.

The surrounding road network varies from motorway (N3) standard to regional roads (L3020, R843) The surrounding landscape is mainly commercial, with large residential housing estates and open space parks.

### 11.3.3 Designation and Zoning

The Site of the Proposed Development is located on land zoned *MC- Major Town Centre*. Residential use is Permitted in Principle under this zoning objective.

Blanchardstown Town Centre is zoned 'MC – Major Town Centre' under the Fingal Development Plan 2017- 2023. The objective of the MC zoning is to '*Protect, provide for and/or improve major town centre facilities*', and the proposed uses accord with the zoning context. The '*Major Town Centre*' zoning supports the densification and consolidation of Blanchardstown Town Centre and a mix of commercial, recreational, civic, cultural, leisure, residential uses, and urban streets. The development strategy for the Town Centre also includes for "the consolidation of Blanchardstown as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the Major Town Centre zoning." This is reflected in Objective Blanchardstown 4 of the Development Plan which seeks to "*Promote the consolidation and densification of the core retail area of Blanchardstown Town Centre as a major centre in Fingal through the promotion of residential development in addition to the uses contained within the MC zoning.*" The proposal for a residential led development on Site B delivers on these objectives and will help deliver much needed residential development within the core of the Town Centre in accordance with the prevailing



land use zoning. The provision of ground floor commercial units will be complementary to the proposed residential uses and also has regard to the substantial existing retail floorspace in the wider Town Centre. The proposals will accord with the economic development objectives of the Development Plan (including Objectives ED40 and ED41) and the objective of reinforcing the importance of Blanchardstown Town Centre's retail function and the extent of retail provision.'

Urban Development and Building Heights Guidelines (UD) (BHG) (2018) state that on larger urban redevelopment sites, proposed developments should make a positive contribution to place-making, incorporating new streets and public spaces, using massing and height to achieve the required densities but with sufficient variety in scale and form to respond to the scale of adjoining developments and create visual interest in the streetscape.

The *Project Ireland 2040: National Planning Framework* (NPF), published on 16<sup>th</sup> February 2018, replaces the previous National Spatial Strategy. It is the Government's high-level strategic plan for shaping the future growth of the country to the year 2040.

National Policy **Objective 13** in this regards states:

*'In urban areas, planning and related standards, including in particular building height and car parking will be based on performance criteria that seek to achieve well-designed high quality outcomes in order to achieve targeted growth. These standards will be subject to a range of tolerance that enables alternative solutions to be proposed to achieve stated outcomes, provided public safety is not compromised and the environment is suitably protected.'*

The Proposed Development complies with the National Planning Framework, in particular National Policy Objective 13.

The proposed heights are considered to be justified in the context of national planning policy and specifically Section 3.2 of the Urban Development and Building Heights Guidelines which seek to increase building heights and densities in our towns and cities, on brownfield sites and in areas with good public transport accessibility, all of which apply to the subject site. The Proposed Development satisfies the criteria as set out at the scale of the city/town, at the scale of district/ neighbourhood/ street and at the scale of the site/building and incorporates this in the development proposals and design.

#### **11.3.3.1 Landscape Character Type and Assessment**

The site lies within the River Valleys and Canal Character Type. Areas of both valleys support recreational facilities along their corridors.

Particular parts of these areas have a low capacity to absorb new development. The areas contained within this character type which have a low capacity to absorb new development are identified as highly sensitive areas on the Green Infrastructure maps. The proposed site is not identified within the Highly Sensitive Landscape area, according to the Fingal Development Plan 2017-2023 online map viewer. The Proposed Development is in line and meets the Landscape Character Assessment Objectives (Objectives NH33, NH34, NH35, NH36, NH37, NH38 and NH39) as outlined within the Fingal Development Plan 2017-2023; and detailed below.



**Objective NH33:** *Ensure the preservation of the uniqueness of a landscape character type by having regard to the character, value and sensitivity of a landscape when determining a planning application.*

**Objective NH34:** *Ensure development reflects and, where possible, reinforces the distinctiveness and sense of place of the landscape character types, including the retention of important features or characteristics, taking into account the various elements which contribute to their distinctiveness such as geology and landform, habitats, scenic quality, settlement pattern, historic heritage, local vernacular heritage, land-use and tranquility.*

**Objective NH35:** *Resist development such as houses, forestry, masts, extractive operations, landfills, caravan parks and large agricultural/horticulture units which would interfere with the character of highly sensitive areas or with a view or prospect of special amenity value, which it is necessary to preserve.*

**Objective NH36:** *Ensure that new development does not impinge in any significant way on the character, integrity and distinctiveness of highly sensitive areas and does not detract from the scenic value of the area. New development in highly sensitive areas shall not be permitted if it:*

- *Causes unacceptable visual harm*
- *Introduces incongruous landscape elements*
- *Causes the disturbance or loss of (i) landscape elements that contribute to local distinctiveness, (ii) historic elements that contribute significantly to landscape character and quality such as field or road patterns, (iii) vegetation which is a characteristic of that landscape type and (iv) the visual condition of landscape elements.*

**Objective NH37:** *Ensure that new development meets high standards of siting and design.*

**Objective NH38:** *Protect skylines and ridgelines from development.*

**Objective NH39:** *Require any necessary assessments, including visual impact assessments, to be prepared prior to approving development in highly sensitive areas.*

#### **11.3.4 Preserved/Protected Views, Protected Areas**

There are no Preserved/Protected Views Protected Areas within the study area.

#### **11.3.5 Protected Structures**

There are no protected structures within the study area.

There is a historic hedgerow located at the western boundary of the Proposed Development. Hedges are important heritage features. Varying greatly in form and species, they help to form the local and regional character of the landscape. It is recognised that ancient hedges are survivors of the woods that covered the country before it became agricultural land, therefore they have a particular conservation value as they often contain a richer variety of plant life than more recent hedges.

It is proposed that the hedgerow will be maintained and conserved in line with current Guidelines to protect the value of this protected feature. Mitigation measures are proposed to ensure the trees and hedgerows are fully protected in accordance with 'BS5837 (2012) Trees

in relation to the Design, Demolition and Construction – Recommendations'. The historic hedgerow will be maintained as much as possible as per the Landscape Plan by Cameo & Partners Design Studio (March 2022) and the Tree Survey Report (Enviroguide Consulting, March 2022).

Site C, Library Car Park, is currently a surface area carpark. As can be seen in Figures 10-2 and 10-3, the current site is lined to the south and east with hedgerows and treelines. The vegetation present on the southern boundary is typical of an historic hedgerow boundary. This hedgerow is visible on Historic 6 Inch (1837 – 1842) mapping indicating that it is historic and is of Cultural Heritage significance, providing landscape character to the site.

The planting on the eastern boundary runs along the old Coolmine Townland Boundary. From a review of aerial imagery of the site during the Desktop Study, it appears that the original planting was removed in the late 1990s/2000 for the development of the site to the southeast. The original boundary has been removed and replaced with ornamental / cultivated varieties of plants.

The Construction and Operational Phase of the development will be carried out in line with Objective CH15 of the Fingal County Council Development Plan.

## 11.4 Characteristics of the Proposed Development

### 11.4.1 Vision of the Proposed Development

The Proposed Development is envisioned to bring a much-needed residential component to Blanchardstown Town Centre to turn it into a new urban district in Dublin. This new "*city within a city*" will have all its functions found intelligently close to each other to ensure compact sustainable urban growth, with it becoming Ireland's first 15-minute city. The development has been designed to meet and satisfy the scale, rhythm and proportion one would expect in a vibrant urban setting.

Five key aspects have been incorporated into the design of the Proposed Development to ensure a seamless transition into the existing urban landscape. These points include the following objectives:

- To turn a campus style environment into one of streets and squares;
- To create a more pedestrian and cycle focused environment;
- To ensure the densification of surface parking site with new residential community;
- To help define a corner with a new local landmark building; and
- To compliment the new Blue Mall F&B extension.

The Proposed Development design has included international precedents for shopping centre led regeneration projects, including principles such as residential densification, site specific solutions and integrated mobility strategy.

### 11.4.2 Description of the Proposed Development

The Proposed Development consists of 6 no. apartment buildings (A, B, C, D, J and K), with ground floor commercial uses, ranging from 5 to 13 no. storeys in height and extension, including associated alterations, of the existing multi storey car park (the Blue Car Park) from 4 no. levels to 6 no. levels.

Apartment Blocks J and K are proposed on the Library Car Park site (Site B) and Apartment Blocks A, B, C and D are located on the Blue Car Park site (Site C). The development includes a total of 352 no. apartments (comprising 43 no. studios, 134 no. 1 bed apartments, 154 no. 2 bed apartments, and 21 no. 3 bed apartments), resident amenity space and 6 no. retail / commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11 Gym or Restaurant / Café use, including ancillary takeaway use).

The construction of 2 no. additional levels on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the apartments within Blocks A, B, C and D. Car parking is also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The Proposed Development includes public and communal open space, landscaping and public realm improvements, vehicular accesses and new road infrastructure adjacent to Block J and K up to the site boundary, cycle parking, 2 no. ESB substations and switchrooms, bin stores and plant rooms. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting.

Figure 11-8 details the Site Layout Plan, Figure 11-9 and 11-10 outlines Site B – Elevations and Figure 11-11 and 11-12 outlines Site C – Elevations (included in Appendix A). Figure 11-13 details the Proposed Landscaping Plan.



Figure 11-8: Site Layout Plan (OMP)





Figure 11-9: 20053-OMP-SB-XX-DR-A-2000 - Site B - North and East Elevations (included in Appendix A)

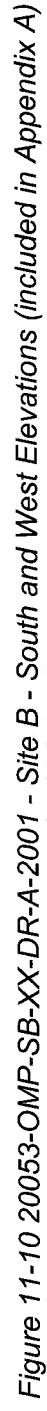




Figure 11-11: 20053-OMP-SC-XX-DR-A-2000 - Site C - East and South Elevations (included in Appendix A)



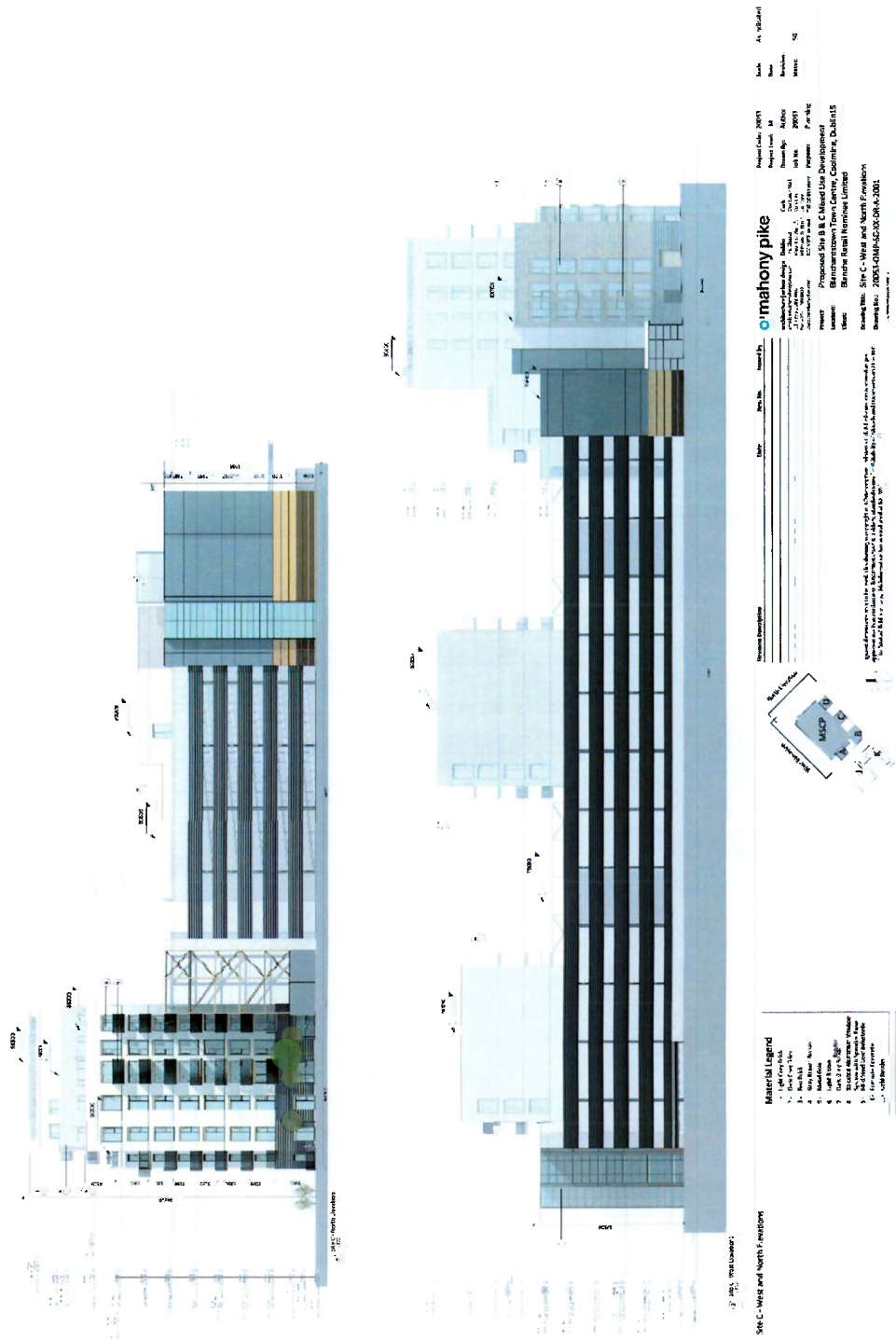


Figure 11-12 20053-OMP-SC-XX-DR-A-2001 - Site C - West and North Elevations (included in Appendix A)



- 1. Ground Floor
  - 2. First Floor
  - 3. Upper Floors terraces
- Extensive Roofs (Sedum roofs with PV Panels)



Figure 11-13: Proposed Landscaping Plan (included in Appendix A)

A Landscaping Strategy has been prepared by Cameo & Partners Landscape Partners and is included as part of this planning application. The following key elements are addressed in the Landscaping Strategy:

1. Public realm improvements along Blocks B, C, and D have been designed to enhance the current street appearance by introducing planted SuDS areas along the road and ornamental defensible planting between building facade and public circulation. All these enhancements have been carefully considered in order not to interfere with visibility of the vehicular splays for both vehicular and pedestrian safety.

The presence of the existing car park structure at the back of the pocket park and podiums is diminished by introducing planting in the forms of climbing plants on wire systems as well as rows of trees that soften the appearance looking from the street. The pocket park layout has been adjusted to include an extension of the building at its back end, however the main purpose of providing sitting and play opportunities in a green area away from the street has not changed.

2. The interface with MSCP has been softened by the introduction of planted elements detailed as per the above paragraph.
3. The streetscape layout changed in that new lay-bys with associated standing spaces and separate cycle lanes, and transition pedestrian footpaths are provided along the main road in order not to interfere with amenity areas where general public congregates. Only areas of high amenity and utilization value have been considered as public open space, no cycle lanes, adjoining pedestrian paths and road crossing areas have been included in the calculations for this category.
4. The communal open spaces will not be taken in charge, there will be a long term management and maintenance plan. Minor amendments to rationalise landscape proposals have been put forward without compromising the high quality of the spaces.
5. A new road has been introduced along the eastern side of block K in order to provide access to FFC lands. Associated hard landscape and new cycle lanes have been introduced to serve the pedestrian and cycle movement around this area.
6. The car park entrance has now been relocated to the east facade of site B with access from the new road leaving room for a more breathable and fluid north-south pedestrian, cycle and vehicular circulation.

## **11.5 Potential Impact of the Proposed Development**

### **11.5.1 Potential Landscape Impact**

#### **11.5.1.1 Construction Phase**

During the Construction Phase the site landscape will undergo a change. Expected landscape impacts include:

- Numerous large, brightly coloured earth moving equipment, construction machinery, cranes operating on the site and construction site offices/facilities, security lighting and fencing etc;
- Change in colour and form of topography due to the excavation, removal and storage of soils;
- Removal of street trees, ornamental planting and hedgerow
- Creation of areas of hard surfaces (car parks, paths, roads)
- Construction of proposed new buildings
- Planting of proposed planting.

In light of the current landscape character and the current land use zoning, the landscape impacts can be viewed as minor to moderate, neutral and short term. These landscape impacts will reduce rapidly with distance from the site boundaries, and intervening hedgerows, agricultural fields and open park space, and existing buildings will further reduce the impacts to minor to negligible, negative and short term for the Construction Phase.

It is concluded that the Proposed Development will, therefore, have a minor to negligible, negative and short-term impact on the landscape character of the Site during the Construction Phase.

#### **11.5.1.2 Operational Phase**

It is not expected that the Operational Phase of the Proposed Development will cause any negative impact. The potential landscape impacts will be neutral and long-term as a result of the Proposed Development. It is considered, in the context of the Development Plan 'Major Town Centre' zoning, the Proposed Development is in line with the objectives of the Plan. Computer-generated imagery (CGI) has been prepared by Visual Labs to visually represent the impact of the Proposed Development. These images are detailed in Figures 11-14 to 11-38.

A Photo Montage Report, prepared by Visual Labs (and included in Appendix E), details the location, size and proximity of the Proposed Development to nearby residential housing areas, road users, users of the adjacent Major Town Centre zoned lands in use by a Sports & Leisure Club, and users of the High Amenity area (Tolka Valley) to the north/northeast of the site. The CGIs and Photo-Montage Report can be used as a tool to aid visual assessment.





*Figure 11-14: Current View of Site B Library Car Park*





Figure 11-15: Proposed CGI View of Site B Library Car Park

This CGI illustrates the height and detailed design of the Site B, Library Carpark, development.

The height of the building, when viewed within the overall context of the Blanchardstown Development (Figure 10-20), gives a structured corner point to the overall site.

The building creates a local landmark at node point.

The buildings are scaled down towards library.

The building defines the street scape and acts as gateway into main civic quarter.

The Proposed Development provides active frontages.





Figure 11-16: Current View of Site C (Blue Car Park)





Figure 11-17: Proposed CGI View of Site C (Blue Car Park)

This CGI illustrates the height and detailed design of the Site C, Blue Carpark, development.

The building creates a prominent corner building which establishes a defined street edge.

The height of the buildings have been modulated to fit in with context.

The building lines the multi storey carpark with volume to give an urban street edge as well as providing active frontage.

The building, together with the Site B building, defines the street scape and acts as gateway into main civic quarter.





Figure 11-18: Current View of Gateway to Shopping Centre



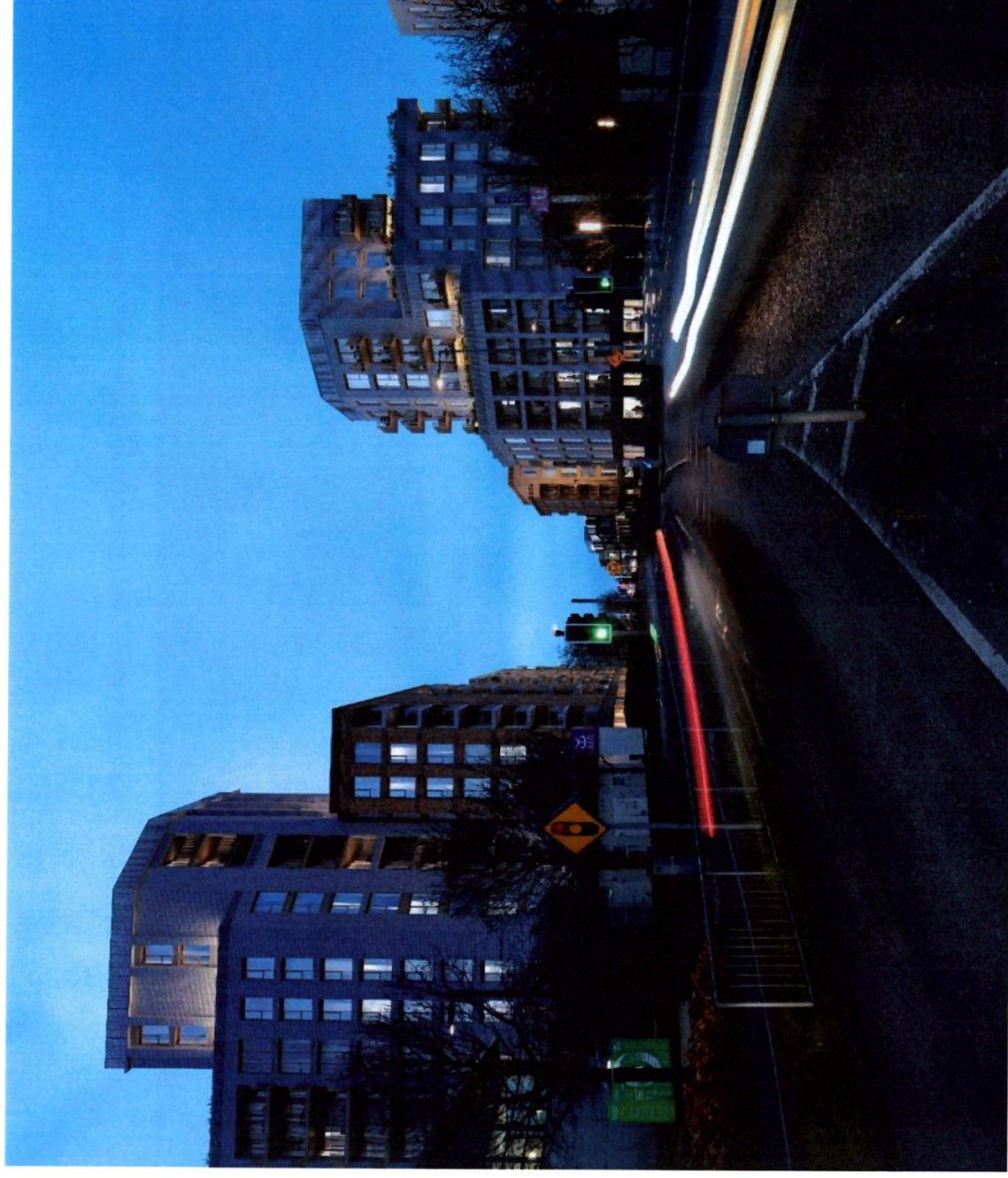


Figure 11-19: Proposed CGI View of Gateway to Shopping Centre

The buildings on Site B and Site C define the street scape and act as gateway into main civic quarter.

The buildings create a local landmark at node point and have been modulated to fit in with the context.



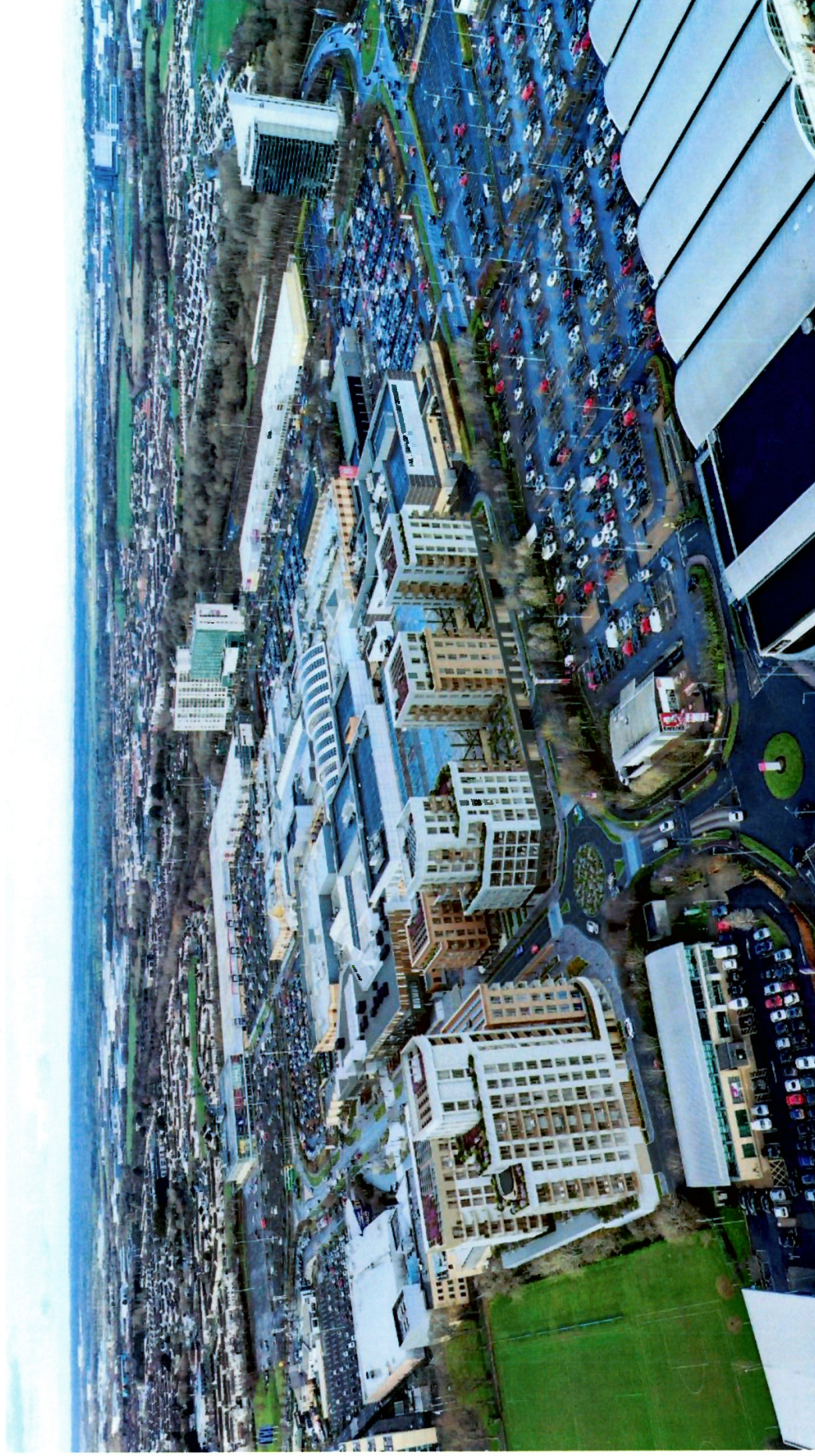


Figure 11-20: Ariel CGI View of Proposed Development within Context of Overall Blanchardstown Town Centre



Figure 11-20 illustrates the Proposed Development within the overall context of the Blanchardstown Town Centre. The buildings create a corner point to the overall Blanchardstown Town Centre Site which form part of the hierarchy of nodes and landmarks for the entire site. The proposed heights are considered to be justified in the context of National Planning Policy and specifically the Urban Development and Building Heights Guidelines which seek to increase building heights and densities in our towns and cities, on brownfield sites and in areas with good public transport accessibility, all of which apply to the subject site. As detailed in Figure 11-21, the height of the Crowne Plaza Building, the node/landmark at the northwest of the site is 11-15 storeys. The Liberty Insurance building at the north of the site is 15+ storeys. The Height of the node proposed at the Site B building is 13 storeys which is within the context.

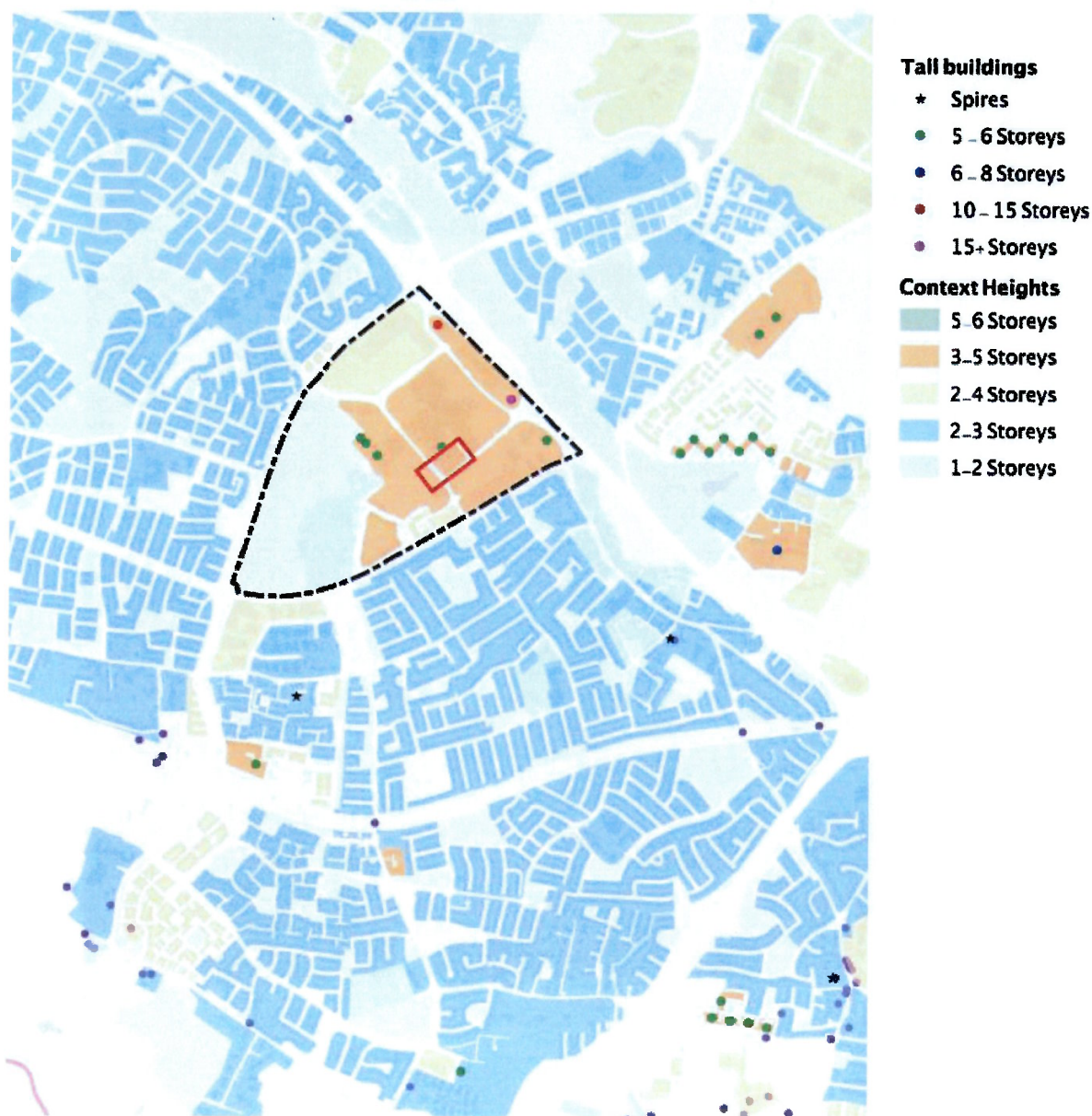


Figure 11-21: Context Heights of Existing Buildings

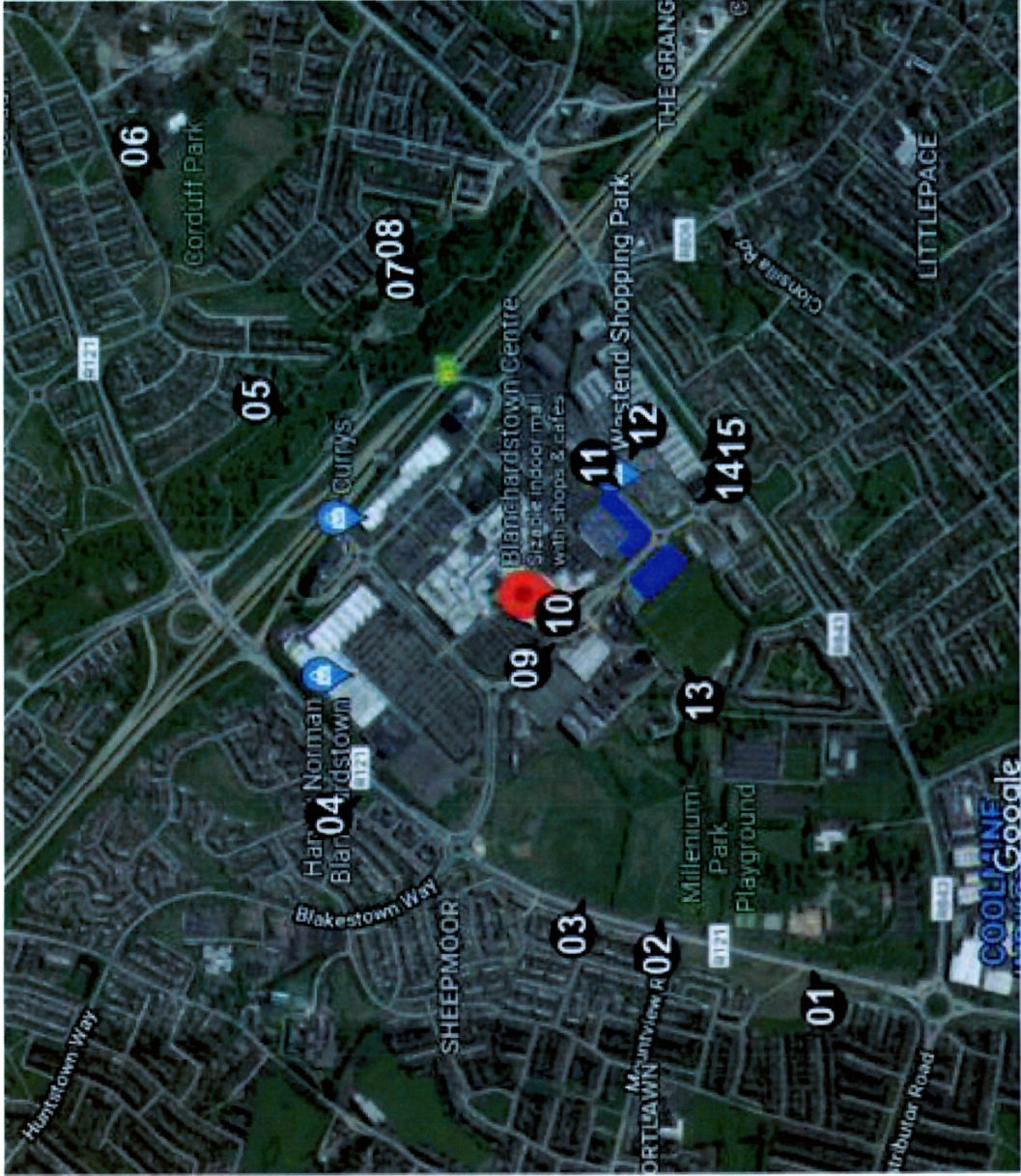


Figure 11-22: Location of Proposed Development with location of Views and associated 3D model of the Proposed Development



Table 11-11: Visual Impact Summary of Proposed Development

No	Viewpoint Location	Visual Sensitivity	Magnitude of Change	Significance & Quality of Visual Effects		
				Construction (Temporary)	Operation (Permanent)	Residual (Permanent)
1	Lohunda Green	Medium – low	Negligible – None	Negligible	Negligible	Negligible – neutral
2	Mountview road	Medium – low	Minor	Slight to negative	Not significant - neutral	Minor – neutral
3	Blanchardstown road south	Medium – low	Low	Slight to negative	Not significant - neutral	Minor – neutral
4	Whitestown Ave.	Medium – low	Negligible – None	Negligible	Negligible	No Impact
5	Tolka Valley @ Brookhaven Park	Medium – High	Negligible – None	Negligible	Negligible	No Impact
6	Corduff park	Medium – low	Minor	Slight negative	Moderate neutral	Negligible – neutral
7	Tolka Valley @ Edgewood Lawns	Medium – High	Negligible – None	Slight negative	Slight neutral	No Impact
8	Edgewood Lawns	Medium – low	Negligible – None	Slight negative	Slight neutral	No Impact
9	Blanchardstown Shopping Centre - existing access road within Blanchardstown Town Centre	Medium	Moderate	Minor negative	Slight neutral	Moderate – positive
10	Blanchardstown Shopping Centre	Medium	Moderate	Minor negative	Moderate positive	Moderate – positive
11	Blanchardstown Shopping Centre – road just off the L3020	Medium	Moderate	Minor negative	Slight neutral	Moderate – positive
12	Westend Shopping Park	Medium	Moderate	Minor negative	Slight neutral	Moderate – positive
13	Major Town Centre zoned lands in use by a Sports & Leisure Club	Medium – low	Moderate –	Moderate negative	Moderate neutral	Moderate – positive

14	Snugborough road	Medium	Moderate	Moderate negative	Moderate – neutral	Moderate – positive
15	Summerfield Rise	Medium	Moderate	Moderate negative	Moderate – neutral	Moderate – positive

As detailed in Table 11-11, Viewpoint Locations 1 to 8 of the Photo Montage report show that the Proposed Development will have a negligible, minor or low impact at those locations. View Point Location 9 will result in a moderate impact and is shown and discussed further in Section 11.6 Cumulative Impacts. Viewpoint Locations 10 to 15 will result in a moderate impact. Images showing the current views and proposed view of each of these locations are detailed in Figure 11-23 to Figure 11-38.



*Figure 11-23: View 7, Edgewood Lawns Tolka Valley, Existing View*



*Figure 11-24: View 7, Edgewood Lawns Tolka Valley, Proposed View*

**Location:** Latitude & Longitude: 53.39433, -6.38363



### **Impact:**

This view is from Edgewood Lawns Tolka Valley, a walkway that overlooks Tolka Valley Park. This view was identified on the Zone of Theoretical Visibility as one of high importance due to the sensitivity of this location for visual receptors. As shown in Figure 11-24, the Proposed Development is not visible from this viewpoint due to the vegetation between this View and the Site of the development. This viewpoint depicts the Proposed Development in winter. In summer months, the foliage will be thick and therefore this viewpoint can be considered a worst-case scenario. As per Table 11-11 above, it is considered that this view has a 'Medium – High' sensitivity, and during the Operational Phase the Proposed Development will result in a 'Slight, Neutral' impact, with 'no residual impact' on nearby receptors.



*Figure 11-25: View 8, Edgewood Lawns Tolka Valley, Existing View*



*Figure 11-26: View 8, Edgewood Lawns Tolka Valley, Proposed View*

**Location:** Latitude & Longitude: 53.39383, -6.38269

**Impact:**

This view is from Edgewood Lawns Tolka Valley, a walkway that overlooks Tolka Valley Park. This view was identified on the Zone of Theoretical Visibility as one of high importance due to the sensitivity of this location for visual receptors. As shown in Figure 11-26, the Proposed Development is not visible from this viewpoint due to the vegetation between this View and the Site of the development. This viewpoint depicts the Proposed Development in winter. In summer months, the foliage will be thick and therefore this viewpoint can be considered a worst-case scenario. As per Table 11-11 above, it is considered that this view has a 'Medium – Low' sensitivity, and during the Operational Phase the Proposed Development will result in a 'Slight, Neutral' impact, with 'no residual impact' on nearby receptors.





*Figure 11-27: View 10, Blanchardstown Shopping Centre, Existing View*



*Figure 11-28: View 10, Blanchardstown Shopping Centre, Proposed View*

**Location:** Latitude & Longitude: 53.39176069, -6.39144383



### **Impact:**

This view is from one of the entrance points of Blanchardstown Shopping Centre. There are no protected views of any value from this location. From this specific viewpoint, the eastern side of the Proposed Development is visible. The level of this visual impact is mitigated by the existing number of commercial buildings in the vicinity of the local landscape. The facade of the Proposed Development is designed to be in keeping with the surrounding architecture. As per Table 11-11 above, it is considered that this view has a 'Medium' sensitivity, and during the Operational Phase the Proposed Development will result in a 'Slight, Neutral' impact, with a 'Moderate, Positive' residual impact on nearby receptors.



*Figure 11-29: View 11, Blue Car Park, Existing View*



*Figure 11-30: View 11, Blue Car Park, Proposed View*

**Location:** Latitude & Longitude: 53.3913261, -6.3875059

**Impact:**

This view is from the existing access road within Blanchardstown Town Centre, towards the Blue Carpark. The Proposed Development will result in a visual impact on this view. The rhythm, tonal shifts, and datum lines create a coherent composition when viewed from the Westend Retail Park. The gaps between the buildings have a framed backdrop with plants growing up the facade. As per Table 11-11 above, it is considered that this view has a 'Medium' sensitivity, and during the Operational Phase the Proposed Development will result in a 'Moderate, Positive' impact, with a 'Moderate, Positive' residual impact on nearby receptors.





*Figure 11-31: View 12, Westend Shopping Park, Existing View*



*Figure 11-32: View 12, Westend Shopping Park, Proposed View*

**Location:** Latitude & Longitude: 53.3903862, -6.3870681



### **Impact:**

This view is from the Westend Shopping Park carpark. As above, the Proposed Development will result in a visual impact on this view, however this viewpoint would be considered as consistent with existing trends in the area, and blends in well with the local commercial and industrial buildings within the existing town. The rhythm, tonal shifts, and datum lines create a coherent composition when viewed from the Westend Retail Park. The gaps between the buildings have a framed backdrop with plants growing up the facade. According to Table 11-11 above, it is considered that this view has a 'Medium' sensitivity, and during the Operational Phase the Proposed Development will result in a 'Slight, Neutral' impact, with a 'Moderate, Positive' residual impact on nearby receptors.



*Figure 11-33: View 13, Major Town Centre zoned lands in use by a Sports & Leisure Club, Existing View*



*Figure 11-34: View 13, Major Town Centre zoned lands in use by a Sports & Leisure Club, Proposed View*

**Location:** Latitude & Longitude: 53.38976513, -6.39335466

**Impact:** This view is from Major Town Centre zoned lands in use by a Sports & Leisure Club. The Proposed Development will result in a visual impact on this view however this viewpoint would be considered as consistent with existing trends in the area and in line with the 'Major Town Centre' zoning objective proposed for this land-use. The Lands are zoned 'Major Town Centre'. From the southern edge, the node building cascades down to a more appropriate scale. The tonal variation and well-proportioned facades present a backdrop to the pitches. According to Table 11-11 above, it is considered that this view has a 'Medium-Low' sensitivity, and during the Operational Phase the Proposed Development will result in a 'Moderate, Neutral' impact, with a 'Moderate, Positive' residual impact on nearby receptors.

A Daylight & Sunlight- Internal Daylight, Sunlight and Overshadowing Report (GIA Chartered Surveyors, March 2022) was completed for the Proposed Development and will be submitted as part of the Planning Application (Appendix F). A Transient Overshadowing Assessment (GIA Chartered Surveyors, February 2022)(Appendix G) was also complete for the purpose of the Proposed Development. The purpose of this report is to ascertain whether the Proposed Blanchardstown Sites B and C Development will result in transient overshadowing of the surrounding area and whether this will be deemed acceptable in terms of impacting any potential future proposed developments in the area.

In relation to Transient Overshadowing, the BRE Guides states within paragraph 3.3.14 *'If a space is used all year round, the equinox (21 March) is the best date for which to prepare shadow plots as it gives an average level of shadowing. Lengths of shadows at the autumn equinox (21 September) will be the same as those for 21st March, so a separate set of plots for September is not required.'*

The BRE goes on to state in paragraph 3.3.15 *'As an optional addition, plots for summertime (e.g. 21 June) may be helpful as they will show the reduced shadowing then, although it should be borne in mind that 21st June represents the best case of minimum shadow, and that shadows for the rest of the year will be longer. Conversely if winter shadows (e.g. 21 December) are plotted, even low buildings will cast long shadows. In a built up area, it is common for large areas of the ground to be in shadow in December.'*

The BRE Guidance also provides further recommendations in relation to overshadowing of amenity spaces. The summary within section 3.3 of the guide states:

*"It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March."*

A visual inspection of the shadow diagrams for 21st June display that overshadowing of the Major Town Centre zoned lands to the south of the site occurs as a result of the early morning sunrise (between 6am-9am on the 21st June and between 8am and 9am on the 21st March). This is due to the sun's lower trajectory in the sky and not considered significant and it is not predicted this will impact negatively on users of the Major Town Centre zoned lands in use by a Sports & Leisure Club, or indeed on any potential future developments that may take place on this Major Town Centre zoned land due to the time of the day the shadow cast occurs. This



amenity space to the south of the Proposed Development meets the recommendations of the BRE Guidelines for the more detailed 'Sun Hours on Ground test' as it will clearly receive in excess of 2 hours sunlight over 50% of the open space.

### **11.5.2 Potential Visual Impacts**

#### **11.5.2.1 Construction Phase**

The potential visual impacts during the Construction Phase will be as described for landscape impacts. As receptors can be expected to have partial, infrequent views of the construction of the Proposed Development, the landscape impacts can be viewed as minor to moderate, negative and short term for the Construction Phase.

#### **11.5.2.2 Operational Phase**

As the views of the new buildings become familiar, it is worth mentioning that developments that at first might be regarded by the public as notable can be expected overtime to gradually diminish and will be perceived as part of the townscape with time with potential visual impacts will further reduce the initial visual impacts from minor/moderate to minor/negligible.

### **11.6 Potential Cumulative Impacts**

#### **Potential Cumulative Impacts**

Cumulative Impacts can be defined as "*impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project*". Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

Table 11-12 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:



*Table 11-12 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	<b>Green Mall (Also known as the Central Mall) &amp; Yellow Mall</b>	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>"The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use."</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>

<b>FW18A/0168</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	Refer to Section 11.6.1 and Figures 11-34; 11-35 and 11-36.
<b>FW20A/0030</b> <b>(Amendment to the permitted Blue Mall extension</b> <b>Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	Planning has been granted for the development of The Blue Mall. Development works have been completed.
<b>FW20A/0018</b> <b>(Amendment to the permitted Blue Mall extension</b> <b>Reg. Ref.: FW18A/0168)</b>	<b>Blue Mall</b>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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FW19A/0017	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>•Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>•Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>•Omit Condition 11 which relates to the control of delivery hours;</li> <li>•Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
dac/145/19	Red Mall	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Cent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
19/4224	Red Mall	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<b>FW18A/0116</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
<b>18/4234</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
<b>FW18A/0011</b>	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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#### 11.6.1 Cumulative Impact (FW18A/0168)

Cumulative impacts can be described as impacts that result from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions. Given the zoning of the adjoining lands it is reasonable to expect additional development in close proximity. The "Blue Mall" has been permitted planning permission (Grant date 11 September 2019) and this development has been taken into consideration when reviewing the potential cumulative landscape impacts in the area. Visual Labs have issued drawings (Figure 11-35 to Figure 11-37 below) that depicts the existing view of Blanchardstown Shopping Centre, the existing view of Blanchardstown Shopping Centre with the Proposed Development Only, and the existing view of Blanchardstown Shopping Centre with both the Proposed Development and the Permitted & Proposed "Blue Mall" development .





*Figure 11-35: View 9, Blanchardstown Shopping Centre, Existing View*



*Figure 11-36: View 9, Blanchardstown Shopping Centre, View with Proposed Development Only*





*Figure 11-37: View 9 Cumulative Impact showing view of Proposed Development together with Permitted & Proposed “Blue Mall” development*

**Location:** Latitude & Longitude: 53.39226063, -6.39275274

It is proposed that the cladding on the “Blue Wall” development will be black, therefore, in terms of landscape and visual impacts to nearby receptors, it is considered there will be a negligible long-term impact as both developments are carefully designed to blend into the fabric and character of the existing townscape.

Figure 11-38 below is a CGI prepared by Visual Labs to illustrate the cumulative impact of the Proposed Development when the Blue Mall is developed.



*Figure 11-38: CGI Cumulative Impact showing Blue Mall Development together with the Proposed Development*

With the implementation of the current Development Plan Standards it is reasonable to expect the orderly and legible development of the area which mitigates any landscape and visual impacts to a minor or below impact.

### **11.7 “Do Nothing” Impact**

The do-nothing impact refers to the non-implementation of the Proposed Development. The primary effect of this would be that the impacts and effects identified would not directly occur. In the event that the development does not proceed it is very likely that the subject site would be developed in the future in line with its zoning. If the site is left in its current state, it will be likely continued to be maintained in its current manner and hence a neutral impact will persist on the existing landscape.

### **11.8 Avoidance, Remedial & Mitigation Measures**

The key landscape and visual mitigation measures used during the Construction Phase have been incorporated into the layout of the site and design of the proposed buildings. The buildings will be clad in a similar neutral coloured material as the existing and will have a similar horizontal emphasis. The set back of the buildings from the site boundary and the positioning of the new buildings along extensions of existing building lines helps to link the Proposed Development with the existing and localises the visual and landscape impacts.

The following mitigation measures are proposed to ensure the trees and hedgerows are fully protected in accordance with ‘BS5837 (2012) Trees in relation to the Design, Demolition and Construction – Recommendations’ or as may be updated.



In order to avoid physical damage to the roots during demolition or construction the following mitigation measures are proposed:

- Careful manual excavation using hand-held tools will be carried out around the Root Protection Areas (RPAs). Soil may be washed off roots as an alternative. Approximately 85% of roots will be expected to be in the top 600mm.
- Exposed roots will be protected to prevent drying out or damage from temperature changes. Roots will be protected immediately on exposure with hessian sacking or similar. The excavation will be backfilled as soon as possible once the protection has been removed.
- All root protection works will be completed under supervision of a suitably qualified Arborist.
- Individual roots and clumps of less than 25mm width can be pruned without further consultation, if necessary, making a clean cut. Roots and clumps greater than 25mm in width will only be cut if agreed by the supervising Arborist.
- Root Protection Zones will be protected from machinery/scaffolding access with scaffolding boards or similar to spread point loads.
- Backfill around retained roots will be with topsoil or uncompacted sharp sand, or other loose inert granular fill.

A Hedgerow Management Plan will be put in place to ensure the long-term survival of the hedgerow by the Arborist that will be appointed to oversee the construction phase of the Proposed Development.

### 11.9 “Worst Case” Scenario

The worst-case effects arise when the mitigation measures as proposed substantially fail. This would result in landscape and visual impacts lasting in the medium to long term as due to the location of the proposed development on valuable zone land it would be highly likely that it would be redeveloped in the near future.

The failure of the proposed landscape mitigation measures is very unlikely. Also, if the Proposed Development is granted, the proposed landscaping will become a part of the plans and particulars of the planning application and as such can be made subject of an enforcement notice by the local authority to rectify the situation.

### 11.10 Residual Impacts

Residual Impacts are defined as ‘*effects that are predicted to remain after all assessments and mitigation measures*’. They are the remaining ‘*environmental costs*’ of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts. Potential residual impacts from the Proposed Development were considered as part of this environmental assessment. No negative residual impacts in the context of landscape and visual impact are anticipated regarding this Proposed Development.

In conclusion, it is considered that the Proposed development is consistent with the landscape policy context as set out in the Building Height Guidelines 2018 and the Fingal County Council Development Plan. The Proposed Development is appropriate to the area and the design and



the proposed mitigation measures successfully address potential adverse impacts. The proposed development has been designed to take account of the existing surrounding area, it is considered that due to the already urban nature of the Site of the Proposed Development, as well as the landscaping proposals, there will be a positive contribution to the landscape and visual impact.

#### **11.10.1 Construction Phase**

Notwithstanding the proposed ameliorative and mitigation measures proposed during the Construction Phase, it is considered that the initial development of the site, including removal of trees and hedgerows and general construction activity will result in overall residual effects that are moderate, negative temporary impacts and ongoing residual effects that will be moderate, neutral short-term impacts by the closest receptors and reduce rapidly with distance to impacts which are minor/negligible, neutral short term impacts.

#### **11.10.2 Operational Phase**

On completion, the disturbance and change associated with the construction stage will be gradually altered by the influence that the new development establishes on the character and visual context of its environs. In this regard it is considered that the Proposed Development of the site will have a residual minor/negligible local impacts on the landscape character of its environs and reduce rapidly with distance to impacts which are negligible, neutral long term impacts.

### **11.11 Monitoring**

#### **11.11.1 Construction Phase**

Landscape tender drawings and specifications have been produced to ensure that the landscape work is implemented in accordance with best practice. This document will include tree work procedures, soil handling, planting and maintenance. The contract works will be supervised by a suitably qualified landscape architect. The planting works will be undertaken in the planting season after completion of the main civil engineering and building work.

#### **11.11.2 Operational Phase**

Monitoring of the mitigation measures will form part of the landscape management plan. Replacement trees, replacement planting and pruning measures will be captured in landscape maintenance plans, and are intrinsically linked to the proposed mitigation measures. All landscape works will be in an establishment phase for the initial three years from planting. Prior to completion of the landscape works, a competent landscape contractor will be engaged and a detailed maintenance plan, scope of operation and methodology will be put in place.

### **11.12 Interactions**

Interactions between Landscape and Visual Impact and other aspects of this Environmental Impact Assessment Report have been considered and are detailed below.

#### **11.12.1 Population and Human Health**

It is not considered that the Proposed Development by virtue of its visual appearance and in the context of the proposed zoning of the Site of the Proposed Development and the urban

and industrial nature of the surrounding landscape, will cause any issues for the residential local population.

#### **11.12.2 Biodiversity (Flora and Fauna)**

The proposed landscaping of the Site interacts with its biodiversity and ecology through the changes that will occur to the existing habitats and flora at the Site. The landscaping proposals will entail losses and contributions in terms of vegetation at the Site, which in turn will affect the ecology of the Site. The Site in its current condition is not of high ecological value, and the proposed landscaping will not result in significant adverse effects in this regard. It is noted that, although largely being retained, a break in the western hedgerow will be required in its southernmost point; to facilitate an internal access roadway to the Major Town Centre zoned lands in use by a Sports & Leisure Club. This will be offset by the proposed tree, hedge and shrub planting to be carried out at the Site.

#### **11.12.3 Archaeology and Cultural Heritage**

As there are no known archaeological or architectural remains found during the desk top survey as well as the walkover survey, it is not predicted that any changes in landscape or visual impact will affect in any way the archaeology of the area.

It is noted that, although largely being retained, a break in the western hedgerow will be required in its southernmost point; to facilitate an internal access roadway to the Major Town Centre zoned lands in use by a Sports & Leisure Club. This hedgerow is an historic hedgerow and is of cultural heritage significance. This is discussed further in Chapter 12 of this EIAR.

#### **11.13 Difficulties Encountered When Compiling**

No difficulties were encountered in the preparation of this Chapter.

#### **Overall Conclusion**

In conclusion, it is considered that the Proposed development is consistent with the landscape policy context as set out in the Building Height Guidelines 2018 and the Fingal County Council Development Plan. The Proposed Development is appropriate to the area and the design and the proposed mitigation measures successfully address potential adverse impacts. The proposed development has been designed to take account of the existing surrounding area, it is considered that due to the already urban nature of the Site of the Proposed Development, as well as the landscaping proposals, there will be a positive contribution to the landscape and visual impact.

#### **11.14 References**

EPA Maps, website, <https://gis.epa.ie/EPAMaps/>

Fingal County Council Development Plan 2017-2023

Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. - Department of Housing, Planning and Local Government 2018.

Historic Landscape Characterisation in Ireland: Best Practice Guidance 2013 - The Heritage Council.

Revised Guidelines (Draft) on the Information to be contained in Environmental Impact Statements (2015) Environmental Protection Agency.

The National Parks and Wildlife Service (NPWS) website, [www.npws.ie](http://www.npws.ie).

## 12 ARCHAEOLOGY AND CULTURAL HERITAGE

### 12.1 Introduction

This chapter of the EIAR describes and assesses the potential effects of the Proposed Development of the application site at Site B, Blanchardstown Town Centre, Coolmine, Dublin 15.

The Site of the Proposed Development comprises an existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices, the multi-storey car park site (known as the Blue Car Park) located to the southeast of the Blanchardstown Centre and in a section of Road C and Road D, including the associated roundabout junction, verges and footpaths. The Proposed Development is for a Mixed Use Development.

The aim of this chapter is to assess the baseline Archaeological, Architectural and Cultural Heritage conditions of the surrounding environment for the Proposed Development, in order to determine any significant impacts that may arise as a result of the Proposed Development and highlight any potential effects this may have on these resources. In addition, if deemed appropriate, mitigation measures are recommended, in accordance with the policies of Fingal County Council, the Department of Culture, Heritage and the Gaeltacht, National Monuments Acts 1930-2004 and best practice guidelines.

The assessment consisted of a paper survey and cartographic research. The sources used were the Record of Monument and Places (RMP), Department of Culture, Heritage and the Gaeltacht (DoCHG), the National Museum of Ireland topographical files, the County Development plans and other available literature resources as detailed in the list of references.

The RMP is a series of manuals listing all known archaeological sites and monuments in each county with accompanying maps locating these sites and additional information from archaeological excavations and assessment records in the intervening period. All sites included in the RMP are protected under the National Monuments Acts (1930-2004). The record is continually updated with information from the results of on-going research and excavation, as new sites are discovered. The types of Recorded National Monuments, both within the study area and in the immediate vicinity, have served to inform the author in the development of a hypothesis as to the potential sub-surface archaeology within the study area. This is backed up by the results of previous archaeological excavations and investigations both within and without the study area published in excavation summary reports for each year ([www.excavations.ie](http://www.excavations.ie)).

The National Museum maintains a register of finds of archaeological objects from each townland in the twenty-six counties of the Republic of Ireland. Detailed records are held for each find, many of which are regarded as 'stray finds' having been recovered by farmers in the course of ploughing or other such activities and received to the museum in accordance with national monuments legislation. The records contain information such as type and location of find, correspondence between the museum and the finder, and, where applicable, results of excavations carried out by museum staff at the location of the finds.

The Fingal County Development Plan (2017-2023) has a list of protected structures which has established the preservation of these structures including their settings. The Record of



Protected Structures was established under the Local Government (Planning and Development) Act 2000 and is a listing of structures of architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest, along with accompanying maps. It also safeguards the protected structures along with their curtilage against any development without the express permission of the Minister for the Department of Arts Heritage and the Gaeltacht.

A number of literary sources and Cartographic maps were also consulted. Literary sources are a valuable means of completing the written archaeological record of an area and gaining insight into the history of the environs of the proposed works. The principal sources consulted are listed in the bibliography at the end of this chapter. Cartographic maps consulted were the OS 6-inch first edition mapping (1837-1842), 25-inch mapping series (1889-1913) and third edition (1909) for Co. Dublin.

## 12.2 Study Methodology

### 12.2.1 Guidance and Legislation

The following legislation and guidance documents were consulted as part of this assessment. This legislation makes up the main legal mechanisms by which Archaeological, Architectural and Cultural Heritage resources are protected in Ireland.

- National Monuments Act, 1930-2014;
- Heritage Act, 1995;
- Architectural Heritage and Historic Properties Act, 1999;
- Local Government (Planning and Development) Act, 2000
- The Planning and Development (Strategic Infrastructure) Act, 2006;
- EPA 'Advice Notes for preparing Environmental Impact Statements' (Draft 2015);
- EPA 'Guidelines on the Information to be Contained in Environmental Impact Statements' (EPA, 2002);
- Frameworks and Principles for the Protection of the Archaeological Heritage, 1999, (formerly) Department of Arts, Heritage, Gaeltacht, and Islands.
- Architectural Heritage Protection: Guidelines for Planning Authorities, 2011, (formerly) Department of Arts, Heritage, and the Gaeltacht.

The assessment contained in this chapter has involved a desktop study / paper survey which considered all available archaeological, architectural, historical, and cartographic sources. This information was used in order to assess any potential impact on the receiving environment and to identify measures to ensure the conservation of any monuments or features.

### 12.2.2 Desk Study

The following archaeological, historical and cartographic sources were examined as part of the paper study:

**Records of Monuments and Places (RMP)** is a list of monuments recorded under Section 12 (1) of the National Monuments (Amendment) Act 1994.

**Sites and Monuments Record (SMR)** is a national baseline database of known archaeological sites and monuments in Ireland.

**Topographical Files of the National Museum of Ireland** is an archive containing records of all finds logged by the National Museum.

**Aerial Photographs** provide an important archaeological resource in terms of detecting new sites and identifying the exact location and extent of known sites. These features can be identified through surface anomalies such as earthworks or distinct vegetation marks.

**Excavations Bulletin** is an annual publication, started in 1970, which summarises all archaeological excavations carried out in Ireland each year ([www.excavations.ie](http://www.excavations.ie)).

**The National Inventory of Architectural Heritage** is a comprehensive database of structures relating to the architectural heritage of Ireland.

**Fingal County Development Plan** contains a list of Architectural Conservation Areas and recorded Protected Structures for County Dublin.

**Cartographic Sources** are important in providing topographical information on areas of archaeological potential as well as tracing land use development within the Proposed Development area.

### 12.3 The Existing and Receiving Environment (Baseline Situation)

The subject site comprises of the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the southern corner adjoining the Blanchardstown Centre, a section of Road C and Road D and the associated roundabout junction, verges and footpaths. Townlands in the area include Mulhuddart to the north, Corduff to the east, Coolmine to the west and Castleknock to the south.

Ringforts and enclosures are undoubtedly the most common field monuments within the Irish landscape and there are no. 2 ringforts and no. 1 enclosure located within a 2km radius of the Proposed Development. A ringfort is a space surrounded by an earthen bank formed by material thrown up from a fosse or ditch located immediately outside the earthen bank. Generally, ringforts vary in size from 25–50 metres in diameter and are usually circular in plan but can also be oval or D-shaped. Figure 12-1 below indicates the location of the Proposed Development in relation to archaeological monuments and architectural features.

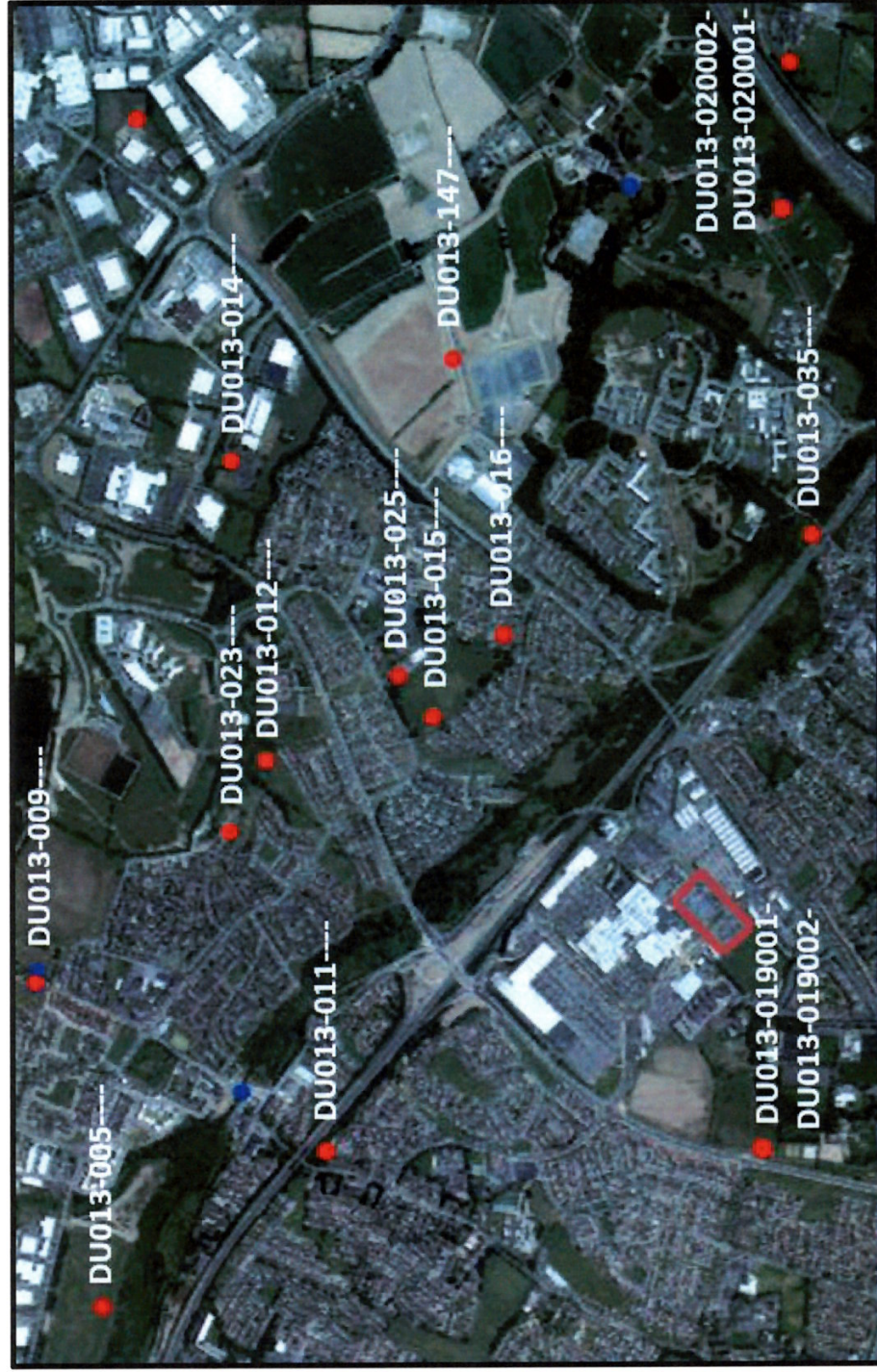


Figure 12-1: Location of Proposed Development (red line boundary) in relation to archaeological monuments and architectural features (red and blue dots)



## 12.4 Characteristics of the Proposed Development

### 12.4.1 RMP files (Record of Monuments and Places) close to the study area

Within a 2km radius of the development Site there are fifteen recorded archaeological monuments. The monuments are listed below, and identified by townland, RMP number, site type, site status and distance of the site for the Proposed Development. The RMP reference consists of a three-letter county code, the relevant number of the Ordnance Survey six-inch sheet on which the Site is located, and the number of the individual monument. This information is gathered from the online Historic Environment Viewer provided by the Department of Culture, Heritage, and the Gaeltacht. These monuments are discussed below within the context of the historical and archaeological background of the surrounding area. No Recorded Monuments will be affected by the development plans.

**RMP No.** DU013-019001-

**Townland** Coolmine (Castleknock By.)

**Site Type** Church

**Description** There is a raised oval area (dims. L 50m E-W, Wth.30m) formerly within the grounds of Coolmine House. According to Healy there were human bones exposed on the site (1974, 21). Traditionally associated with St. Machtus and believed to be the site of the 'white chapel' which went out of existence about 1490 (Ronan 1940, 188). In the list of the churches of the dioceses c. AD 1275, the Crede Mihi, the church of 'Culmyn' is mentioned. It is also mentioned in the Taxation of 1292 and 1294.

Now contained within the Blanchardstown Millennium Park. The site was subject to geophysical survey (Licence no. 09R195) in advance of the proposed Metro West. Remains of enclosure ditches and possible pit type features associated with the Coolmine Church (DU013-019001-) and graveyard (DU013-019002-) were identified. A sub-circular enclosure (c.50m diam. NS) and further ditch remains extending to the south and east were associated with possible burnt/fired features which may indicate hearths or kilns (Nicholls 2009, 14). A dog run was installed directly abutting the eastern limit of the oval area without archaeological supervision.

**Distance** This RMP site is located 0.6km west of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-019002-

**Townland** Coolmine (Castleknock By.)

**Site Type** Graveyard



**Description** A raised oval area (dims. L 50m E-W, Wth.30m) formerly in the grounds of Coolmine House, now Blanchardstown Millennium Park. According to Healy there were human bones exposed on the site (1974, 21). There are no grave markers. Associated with the 'white chapel' which went out of existence about 1490 (Ronan 1940, 188 (DU013-019001-)).

The site was subject to geophysical survey (Licence no. 09R195) in advance of the proposed Metro West. Remains of enclosure ditches and possible pit type features associated with the Coolmine Church (DU013-019001-) and graveyard (DU013-019002-) were identified. A sub-circular enclosure (c.50m diam. NS) and further ditch remains extending to the south and east were associated with possible burnt/fired features which may indicate hearths or kilns.

**Distance** This RMP site is located 0.6km west of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-035----

**Townland** Blanchardstown

**Site Type** Mill - unclassified

**Description** Named 'corn mill' on the 1837 OS 6-inch map. This 19th century, four bay, three storey mill probably occupies the site of an earlier mill. Described in the Civil Survey (1654-6) as 'one waste mill' belonging to Simon Luttrell (Simington 1945, 242). Test excavation (Licence no. 08E0147) was undertaken in the vicinity in advance of the Blanchardstown Regional Water Scheme but no archaeological remains were identified.

**Distance** This RMP site is located 1km southeast of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-016----

**Townland** Corduff (Castleknock By.)

**Site Type** Ringfort - unclassified

**Description** One of three sites within close proximity named 'fort' on the 1837 OS 6-inch map. There is a housing estate on the site. Nothing is visible at ground level.

**Distance** This RMP site is located 0.9km east of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No. DU013-015----**

**Townland** Corduff (Castleknock By.)

**Site Type** Ringfort – unclassified

**Description** A circular earthen platform which is scarped all around (diam.42m; H 3m); probably the remains of a platform ringfort. Named 'fort' on the 1837 OS 6-inch map. The site was formerly under dense tree cover on the grounds of Corduff House. Now within green space abutted by two playing pitches and a pathway. Remains of well established trees edging and upon mound which is defined on its top edge by large boulders. Some denuding along southwest quadrant. Being used for anti-social behaviour.

**Distance** This RMP site is located 0.9km east of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No. DU013-025----**

**Townland** Corduff (Castleknock By.)

**Site Type** House - 16th/17th century

**Description** There is a large multi-gabled dwelling marked on the Down Survey (1655-6) map compiled. The Civil Survey (1654-6) mentions a 'stone house, slated' (Simington 1945, 246). Possibly incorporated into the make-up of the later Corduff House. Test excavation and monitoring (Licence no. 05E0360) were undertaken in advance of the construction of a sports hall. The vestiges of eight rooms representing the foundation level of the later house, part of a tiled area from the ground floor and remnants of a pond 20m north of the house location were excavated (Carroll, 2006).

**Distance** This RMP site is located 1km east of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No. DU013-012----**

**Townland** Corduff (Castleknock By.)

**Site Type** Mound

**Description** Located at eastern end of open space for Warrenstown housing estate, close to a stream that runs into the Tolka. The mound (diam.28m; H 2m) is completely overgrown with brambles and the area appears to have been used for construction scarping and dumping as well as domestic dumping. The mound is within an area designated as a flood plain.

**Distance** This RMP site is located 1.3km northeast of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-011----

**Townland** Coolmine (Castleknock By.)

**Site Type** Designed landscape - tree-ring

**Description** This site is marked as a tree-covered mound in the 1837 OS 6 inch map, one of a line of such mounds which bordered the northern end of Coolmine estate. It was removed during land reclamation in the late 1950s and appears as a continuous circular cropmark on Cambridge photography (CUCAP AP1 27). Excavations in advance of the Navan Road Improvement Scheme in 1989 identified an enclosure (26m diam.). It consisted of a ditch (3m w. x 1m d.) that contained post medieval delft and clay pipe and was interpreted as a tree ring.

**Distance** This RMP site is located 1.2km north of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-147----

**Townland** Deanstown (Castleknock By.)

**Site Type** Fulacht fia

**Description** The site was subject to geophysical survey (12R0111) and excavation (Licence no. 13E134Ext.) in advance of the construction GAA pitches. This monument consisted of three pits filled with burnt mound types deposits. Pit 1 was oval in plan (1.7, x 1.1m ). Pit 2 was circular in plan (1.8m diam.) and Pit 3 oval (1.1m x 0.8m) was associated with a possible trough (2.1m x 1.7m). A sample of hazel from the fill of the trough returned a calibrated date of 1917-1747 BC, dating it to the Early Bronze Age (Coughlan 2013, 4).

**Distance** This RMP site is located 1.7km east of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-020001-

**Townland** Abbotstown

**Site Type** Church

**Description** St. Coemhin's Church is located on a high point within an oval graveyard. Fragments of the North and West walls are all that survive and are very overgrown. These are built of randomly coursed masonry (L 7.6m, Wth 5.5m, H 2.5m, wall T 0.97m). At the West

end of the North wall is a door rebate with draw bar holes in the E jamb. There are two splayed opes and putlog holes also in this wall. The ground falls away steeply S of the church where there is an enclosing stone-faced fosse (Wth 4.7m, D 1.6m). This is replaced by a wall along the West and North side of the site, which appears to be built on an earlier earthwork. Within the graveyard (dims. E-W 60m, N-S 40m) there are 18th and 19th century graveslabs.

**Distance** This RMP site is located 1.9km southeast of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-020002-

**Townland** Abbotstown

**Site Type** Graveyard

**Description** Located at the end of a low ridge. The graveyard at Abbotstown is situated on the grounds of the State Laboratory (Healy 1975, 21). The ground falls steeply south of the church where there is an enclosing stone faced fosse w.4.7m, d.1.6m. This is replaced by a wall and appears to be built on an earlier earthwork. The north eastern boundary consists of a modern breeze block wall. It contains numerous 18th century memorials dedicated to merchants from the city of Dublin including Philip Reilly (1774), Maurice Ward (1773) and Daniel Darcy (1757). Associated with St Coemhin's well or Caveen well which was closed up by the landlord (O'Danachair 1958, 74).

**Distance** This RMP site is located 1.9km southeast of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No.** DU013-023----

**Townland** Buzzardstown

**Site Type** House - 16th/17th century

**Description** The Down Survey (1655-6) map shows a dwelling at Buzzardstown near Buzzardstown House. In the second half of the 18th century the family of Flood owned Buzzardstown House-on a winter's night in 1761 it is recorded that the gable-end of Mr Flood's house at Mulhuddart suddenly gave way, whereby Mrs Flood and her daughter were killed. Test excavation (Licence no. 06E0184) was undertaken at the site of Buzzardstown House but archaeological remains were not located.

**Distance** This RMP site is located 1.3km noreast of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.



**RMP No. DU013-014----**

**Townland** Corduff (Castleknock By.)

**Site Type** Mound

**Description** Comprises a large earthen mound (diam.50m, H 3m). Located within the IDA Industrial estate, large landscaped mound serving as a roundabout. Treeplanting has become established and drainage inserted into base.

**Distance** This RMP site is located 1.8km east of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No. DU013-009----**

**Townland** Tyrrelstown

**Site Type** Ritual site - holy well

**Description** This vaulted well-house stands by the roadside. The well is approached by stone steps. On the roof are two finials, one a stone carved with a cross in relief and the other a stone niche with an inscription. It is still venerated. Formerly a pattern day was held on the 8th of September (Ó Danachair 1958-60, 76; Daly 1957, 19). The water is traditionally reputed to cure sprains, cuts, bruises and rheumatism. The well is recognised by Fingal County Council as 'County Geological Site' (Parkes 2012, 52).

**Distance** This RMP site is located 1.8km north of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

**RMP No. DU013-005----**

**Townland** Parslickstown

**Site Type** Enclosure

**Description** Situated to the north of the river Tolka. An aerial photograph taken in 1971 (FSI I. 063/2/1) shows cropmark evidence for a subcircular enclosure (diam. c. 20m). Now within playing pitches. Not visible at ground level

**Distance** This RMP site is located 2km north of the Proposed Development Site.

**Impact** This site will not be affected by the Proposed Development.

#### 12.4.2 Topographical files, National Museum of Ireland (NMI)

There are no topographical files from the Site, or within the vicinity of the Site of the Proposed Development in the National Museum files. The closest recorded topographical file to the Proposed Development is a “polished stone axehead” in the townland of Clonsilla (1.8km west of the Site)- Name 1979:104.

#### 12.4.3 Cartographic Analysis

##### 12.4.3.1 Historic six-inch Ordnance Survey Map, 1837-1842

The first edition of the six-inch Ordnance Survey map was carried out from 1837-1842. This map shows the Proposed Development Site and surrounding areas as a series of agricultural fields divided by field boundaries. Coolmine Cottage and Coolmine House are located west and southwest of the Proposed Development, respectively. There is a road located north of the Proposed Development. This similar layout is recorded in all mapping consulted.

See Figure 12-2 OS mapping historic 6” First Edition Colour (GEOHIVE).

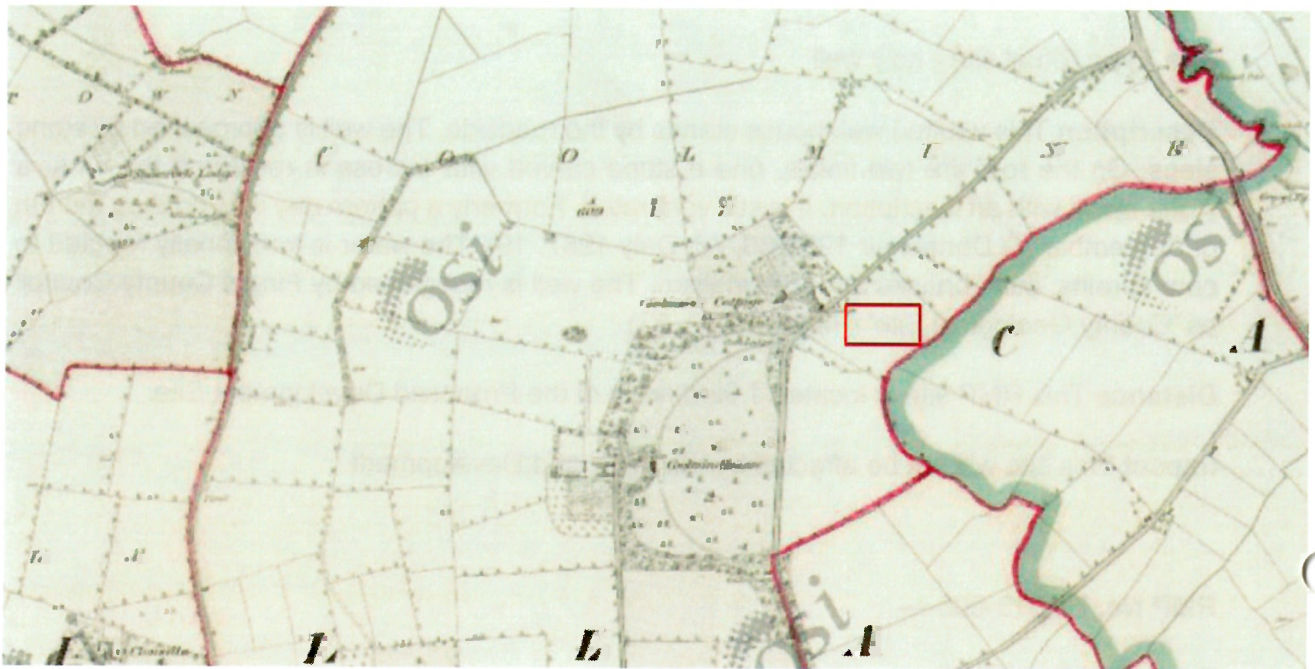


Figure 12-2: First Edition 6-inch Ordnance Survey Map, 1838-1842 with approximate project site (Red outline)

#### 12.4.4 Fingal County Council Development Plan 2017 – 2023

The Fingal County Council Development Plan addresses Architectural Conservation Areas, historic areas and Protected Structures, and recognises the statutory protection afforded to all Records of Monuments and Places (RMP) and all archaeological heritage sites under the National Monuments Legislation (1930-2004), and the development plan lists a number of aims and objectives in relation to archaeological and architectural heritage.

- Objective CH03: Protect all archaeological sites and monuments, underwater archaeology, and archaeological objects, which are listed in the Record of Monuments

and Places and all sites and features of archaeological and historic interest discovered subsequent to the publication of the Record of Monuments and Places, and to seek their preservation in situ (or at a minimum, preservation by record) through the planning process

- Objective CH07: Ensure that development within the vicinity of a Recorded Monument or Zone of Archaeological Notification does not seriously detract from the setting of the feature, and is sited and designed appropriately
- Objective CH20: Ensure that any development, modification, alteration, or extension affecting a Protected Structure and/or its setting is sensitively sited and designed, is compatible with the special character, and is appropriate in terms of the proposed scale, mass, height, density, layout, materials, impact on architectural or historic features, and junction with the existing Protected Structure (Objective CH21 copy and paste objective from CPD)
- Objective CH25: Ensure that proposals for large scale developments and infrastructure projects consider the impacts on the architectural heritage and seek to avoid them. The extent, route, services and signage for such projects should be sited at a distance from Protected Structures, outside the boundaries of historic designed landscapes, and not interrupt specifically designed vistas. Where this is not possible the visual impact must be minimised through appropriate mitigation measures such as high quality design and/or use of screen planting.

#### **12.4.4.1 Architecture**

Protection is also recognised to areas of cohesive architectural value and these areas can be classified as Architectural Conservation Areas (ACA), and any works that may have a material effect on the special character of an ACA needs planning permission. An area can be designated an ACA often because it contains a group of historic buildings or has a distinctive street size/plot size that contributes to the distinct character of a town or village. In the Fingal area, there are thirty-two Architectural Conservation Area Locations, as follows:

- Abbeville Demesne
- Ardgillan Demesne
- Balbriggan – Nos. 14 to 28 Hampton Street (even numbers only)
- Balbriggan Historic Town Core
- Baldoyle
- Balrothery
- Balscadden
- Castleknock
- Donabate – Newbridge House Demesne & The Square
- Garristown
- Howth Castle Demesne
- Howth Historic Core
- Howth – Nashville Road & Park
- Howth – St. Nesson's Terrace, St. Peter's Terrace, Seaview Terrace & The Haggard
- Lusk
- Luttrellstown Demesne
- Malahide Castle Demesne

- Malahide Historic Core
- Malahide – The Bawn, Parnell Cottages & St. Sylvesters Villas
- Malahide – The Rise
- Milverton Demesne
- Naul
- Portrane – Grey Square
- Portrane – Red Square
- Portrane – St. Ita's Hospital complex
- Old Portmarnock (Drimnigh Road)
- Oldtown
- Rowlestown
- Skerries
- Sutton – Sutton Cross & Environs
- Sutton – No. 20a to 26 Strand Road
- Sutton – Martello Terrace, Strand Road

The Proposed Development does not lie within the vicinity of any of the above designated areas.

#### **12.4.4.2 Protected Structures**

A protected structure is a structure or part of a structure that a planning authority considers to be a special interest from an “*architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest*”.

In certain circumstances, some archaeological structures may also be considered as architectural heritage, meaning they may therefore appear on both the Record of Monuments and Places (RMP) and the Record of Protected Structures (RPS). These structures are protected by both the National Monuments Acts and the Planning and Development Acts 2000 (as amended).

According to Appendix 2 of the Fingal County Council Development Plan 2017-2023, there are no records of Protected Structures within the Site of the Proposed Development.

#### **12.4.4.3 Inventory of Architectural Heritage**

The National Inventory of Architectural Heritage (NIAH) was reviewed in order to identify any buildings/features of architectural significance within 2km of the Proposed Development Site. The NIAH Registration Number refers to the registration number on the National Inventory of Architectural Heritage building survey of Fingal. The NIAH is a section within the Department of the Arts Heritage and the Gaeltacht, and the work involves identifying and recording the architectural heritage of Ireland from 1700 to present day Ireland. It is important to note that there may be structures in the NIAH survey that are also included in the RPS, however not all of them are. There are 14 buildings of architectural significance located within 2km of the Proposed Development Site. Information from the National Inventory of Architectural Heritage on this building and its features are given below.



**Reg. No.** 11354001

**Townland:** Blanchardstown

**Date:** 1855 – 1860

**Original Use:** Church/Chapel

**Categories of Special Interest:** Architectural, Artistic, Social

**Description:** Detached three-bay gable-fronted Roman Catholic church, built 1858. Three-bay side elevation to nave, with single-bay three-stage bell tower and spire to west. Single-bay sacristy to east and two single-bay entrance porches to north elevation. Curved extension with additional two-bay extension to south elevation. **ROOF:** Double pitched; slate; cast-iron rainwater goods; hipped polychromatic slates and tiles to spire; limestone coping having cross apex. **WALLS:** Rough cast rendered; nap rendered quoins. **OPENINGS:** Gothic arch windows; nap rendered surrounds and cills; limestone mullions; replacement timber doors; blind arched openings to front gable. **INTERIOR:** Single cell interior; rib vaulted ceiling with Romanesque style corbels; panelled timber gallery resting on cast-iron columns; stained glass windows, c.1880; Gothic arched niches to altar; timber wainscoting; moulded cill course.

**Distance:** This is located 1km south of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11354002

**Townland:** Blanchardstown

**Date:** 1800-1820

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Technical

**Description:** Single-arch ashlar granite humpback road bridge over canal, c.1810.

**Distance:** This is located 1.5km south of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11353009

**Townland:** Coolmine

**Date:** 1870-1900

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Technical

**Description:** Single-arch bridge over river, c.1885, with rough faced limestone walls and granite dressings.

**Distance:** This is located 1.4km north of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11354003

**Townland:** Blanchardstown

**Date:** 1815-1825

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Technical

**Description:** Single-arch ashlar granite and limestone humpback road bridge over canal, built 1819. Limestone name and date plaque. Pair of lock gates to west. Road diverted; bridge now pedestrianised.

**Distance:** This is located 1.7km south of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11354004

**Townland:** Castleknock (without Phoenix Park)

**Date:** 1800 - 1820

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Technical

**Description:** Single-arch humpback road bridge over Royal Canal, c.1810, now pedestrianised.

**Distance:** This is located 1.4km southwest of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11361032

**Townland:** Sheephill

**Date:** 1790 - 1800

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Technical

**Description:** Single-arch stone road bridge over river, built 1795, with ashlar parapet walls, cut stone keystones and voussoirs, having stone date and name plaques.

**Distance:** This is located 2km south of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11361002

**Townland:** Porterstown

**Date:** 1860 - 1880

**Original Use:** Water Pump

**Categories of Special Interest:** Artistic, Social

**Description:** Cast-iron water pump, c.1870, now missing parts.

**Distance:** This is located 1.4km west of the Proposed Development Site.

**Impact:** This feature will not be affected by the Proposed Development.

**Reg. No.** 11361001

**Townland:** Kellystown

**Date:** 1850 - 1860

**Original Use:** School

**Categories of Special Interest:** Architectural, Artistic, Historical, Social

**Description:** Detached gable-fronted three-bay two-storey over basement former school with attic accommodation, built 1854, with gabled central projecting bay flanked by entrance porches. Now vacant. Architect: James Kennedy Esq.

**Distance:** This is located 1.6km west of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11361004

**Townland:** Porterstown

**Date:** 1790 - 1810

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Historical, Technical

**Description:** Single-arch limestone bridge over canal, c.1800, with plaque over arch. Plaque reads: "In memory of sixteen people/who lost their lives/when the/Dublin to Longford/passenger boat sank here/25 November 1845/Erected by R.C.A.G. 25 Nov 1995.

**Distance:** This is located 1.5km west of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11361005

**Townland:** Porterstown

**Date:** 1840 - 1860

**Original Use:** Worker's House

**Categories of Special Interest:** Architectural, Social

**Description:** Detached three-bay single-storey former railway keeper's house, c.1850, with central gable-fronted projecting porch. Now derelict. ROOF: Hipped; slate; rendered chimney stack; terracotta pots; overhanging eaves; gable fronted double pitched slate porch roof with timber barge boards. WALLS: Lime washed. OPENINGS: Square headed windows; lugged rendered surrounds; painted stone sill, 2/2 timber sash window; segmental headed door opening; tongue and groove timber panelled half door.

**Distance:** This is located 1.6km west of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11354005

**Townland:** Abbotstown



**Date:** 1500 - 1700

**Original Use:** Graveyard/cemetery

**Categories of Special Interest:** Architectural, Social

**Description:** Graveyard and ruined Church dating from pre-1700, now overgrown with vegetation.

**Distance:** This is located 1.9km southeast of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11354006

**Townland:** Sheephill

**Date:** 1840 - 1880

**Original Use:** Graveyard/cemetery

**Categories of Special Interest:** Architectural, Artistic

**Description:** Detached five-bay two-storey former house, c.1860, with advanced central entrance bay to ground floor. Two-storey return to rear and six-bay two-storey wing to north-east. Extended to north, c.1930 and c.1970. Farmyard complex to north. Now in use as laboratories and offices. **ROOF:** Hidden behind parapet wall; double pitched slate roof to right wing, nap rendered chimney stacks with terracotta pots. **WALLS:** Nap rendered with a moulded cornice; **OPENINGS:** Square headed window opening with nap rendered architraves and cornice stone cills; cill course; 6/6 and 1/1 timber sash windows; nap rendered porch with Doric pilasters; wreaths, cornice and balustrade; flat panelled timber door flanked by timber side windows to porch.

**Distance:** This is located 2km east of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11350040

**Townland:** Belcamp

**Date:** 1825 - 1875

**Original Use:** Bridge

**Categories of Special Interest:** Architectural, Technical

**Description:** Single-arch concrete road bridge over river, c.1850. Balustraded parapet with cast-iron balusters.

**Distance:** This is located 1.9km northeast of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

**Reg. No.** 11353010

**Townland:** Tyrrelstown

**Date:** 1650 - 1750

**Original Use:** Holy Well

**Categories of Special Interest:** Archaeological, Historical, Social

**Description:** Rubble stone corbelled roof structure surrounding holy well, c.1700, with inscribed stone to gable. Isaac Butler wrote in 1740 about the well and the great Pattern that would occur yearly at it.

**Distance:** This is located 1.9km northeast of the Proposed Development Site.

**Impact:** This site will not be affected by the Proposed Development.

#### **12.4.4.4 Historic Hedgerow**

It has been determined that an historic hedgerow, of cultural heritage significance, is located at the western boundary of the Site. This hedgerow is visible on Historic 6 Inch (1837 – 1842) mapping indicating that it is historic and is of Cultural Heritage significance, providing landscape character to the site.

It is proposed that the hedgerow will be maintained as much as possible and conserved in line with current Guidelines to protect the value of this protected feature. A section of this hedgerow will be removed to provide access to the adjoining field as detailed in the Landscaping Plan prepared by Cameo Partners Landscape Architects.

#### **12.4.5 Construction Phase**

This section assesses the impact of the Proposed Development on the Archaeology and Cultural Heritage of the area during the Construction Phase.

The greatest impact to buried archaeological deposits occurs during large-scale removal of topsoil during the initial construction phase groundworks. However, as the closest recorded RMP site is located 0.6km from the Site, it is predicted that the Construction Phase of the development will not cause any significant impact on the Archaeology and Cultural Heritage of the area as a result of construction and excavation works.

#### 12.4.6 Operational Phase

The Operational Phase of the Proposed Development will not result in any impact on the Archaeology and Cultural Heritage of the area.

#### 12.4.7 Potential Cumulative Impacts

##### Potential Cumulative Impacts

Cumulative Impacts can be defined as *"impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project"*. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

Table 12-1 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

*Table 12-1 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	<b>Green Mall (Also known as the Central Mall) &amp; Yellow Mall</b>	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>"The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use."</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>



FW18A/0168	Blue Mall	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	<p>In the context of archaeology and cultural heritage impact, no cumulative effects are anticipated from the Proposed Development.</p>
FW20A/0030 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>
FW20A/0018 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration.</p> <p>Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>

FW17A/0147	Red Mall	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:</p> <p>"The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.</p> <p>The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels , resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.</p> <p>The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
18/4206	Red Mall	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:</p> <p>"It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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FW19A/0017	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall.</p> <p>Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>• Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>• Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>• Omit Condition 11 which relates to the control of delivery hours;</li> <li>• Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
dac/145/19	Red Mall	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown ShoppingCent"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
19/4224	Red Mall	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>



FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

<b>FW18A/0116</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>“Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works.”</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
<b>18/4234</b>	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>“Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified.”</p>	
<b>FW18A/0011</b>	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>“The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway.”</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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#### 12.4.8 “Do Nothing” Impact

A do-nothing scenario would result in the Site remaining as surface car park site and a multistorey carpark. If the Proposed Development were not to proceed, the existing Site would continue to be present and operational. Archaeological or cultural remains will not be impacted upon, the same as the scenario for the Proposed Operational Phase of the Development.

### 12.5 Avoidance, Remedial & Mitigation Measures

#### 12.5.1 Construction Phase

It is possible that excavation works associated with the Proposed Development may have an adverse impact on small or isolated previously unrecorded archaeological feature or deposits that have the potential to survive beneath the current ground level. If any archaeological remains are discovered during this project, all works will cease and an expert archaeologist will be brought to Site and all future works will be carried out under the supervision of the archaeologist.

### 12.5.2 Operational Phase

Since no known archaeological, architectural or cultural heritage remains were found during the desk top survey, it is likely that there are no further mitigation measures required for this development.

### 12.5.3 “Worst Case” Scenario

In the worst-case scenario where mitigation measures fail for the Proposed Development, it is considered that there is potential that a monument of cultural heritage or importance could be damaged. This is considered highly unlikely and indeterminable.

## 12.6 Residual Impacts

No negative residual impacts in the context of archaeology and cultural heritage are anticipated regarding this Proposed Development.

## 12.7 Monitoring

No specific monitoring measures are required in relation to archaeology and cultural heritage given the fact that it is not predicted that the Proposed Development will have any adverse impacts on any archaeological features or deposits.

## 12.8 Interactions

Interactions between Archaeology and Cultural Heritage and other aspects of this Environmental Impact Assessment Report have been considered and are detailed below.

### 12.8.1 Landscape and Visual:

It is not predicted that any changes in landscape or visual amenities will affect in any way the archaeology and cultural heritage of the area.

## 12.9 Difficulties Encountered When Compiling

There were no difficulties in compiling the specified information with regard to archaeological, architectural and cultural heritage.

## 12.10 References

Archaeological Survey Database, available at:  
<http://webgis.archaeology.ie/historicenvironment/>

Department of Arts, Heritage, Gaeltacht and the Islands (1999b). Policy and Guidelines on Archaeological Excavation. Dublin. Government Publications Office.

National Monuments of Ireland database available at:  
<http://webgis.archaeology.ie/historicenvironment/>



National Inventory of Archaeological Heritage, available at:  
<http://www.buildingsofireland.ie/Surveys/Buildings/>

OSI mapping (<https://osi.ie/>)

<https://heritagemaps.ie/WebApps/HeritageMaps/index.html>

Fingal County Development Plan 2017 - 2023

[www.excavations.ie](http://www.excavations.ie)

## 13 MATERIAL ASSETS: TRAFFIC, WASTE AND UTILITIES

### 13.1 Traffic

#### 13.1.1 Overview

CSEA has been commissioned to prepare a Traffic and Transport Assessment (TTA) for a proposed mixed-use development at Site B (Library Car Park) and Site C (Blue Car Park) within Blanchardstown Town Centre, Blanchardstown, Dublin 15. This TTA is accompanied by a Residential Travel Plan, contained within a separate document.

#### 13.1.2 Site Location and Overview of Proposed development

##### 13.1.2.1 Site Location

The proposed development site is located within Blanchardstown Town Centre, Dublin 15. The subject site is currently occupied by 2 car parking areas, accommodating 378 no. car parking spaces. Figure 13.1 and Figure 13.2 below, illustrates the site location in relation to surrounding road network and inside the Shopping Centre. Details about the car parking reduction expected as a result of the proposed development is discussed within section 13.8 of this Chapter.

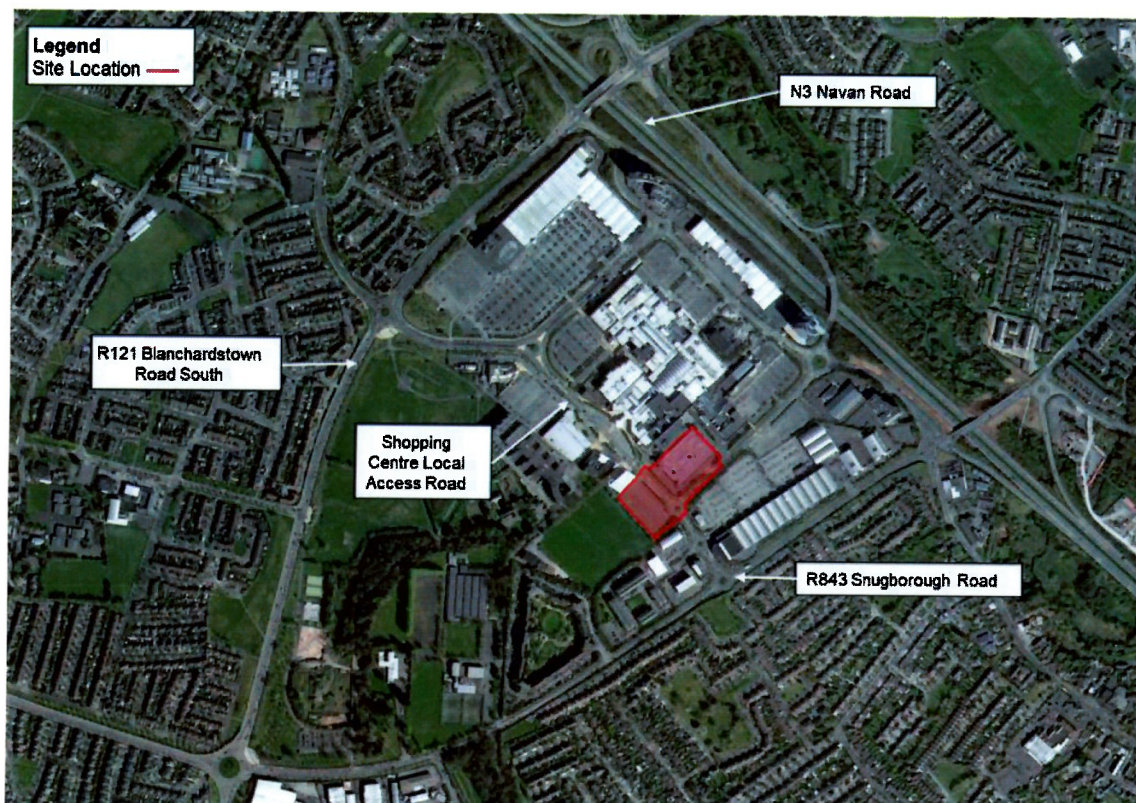
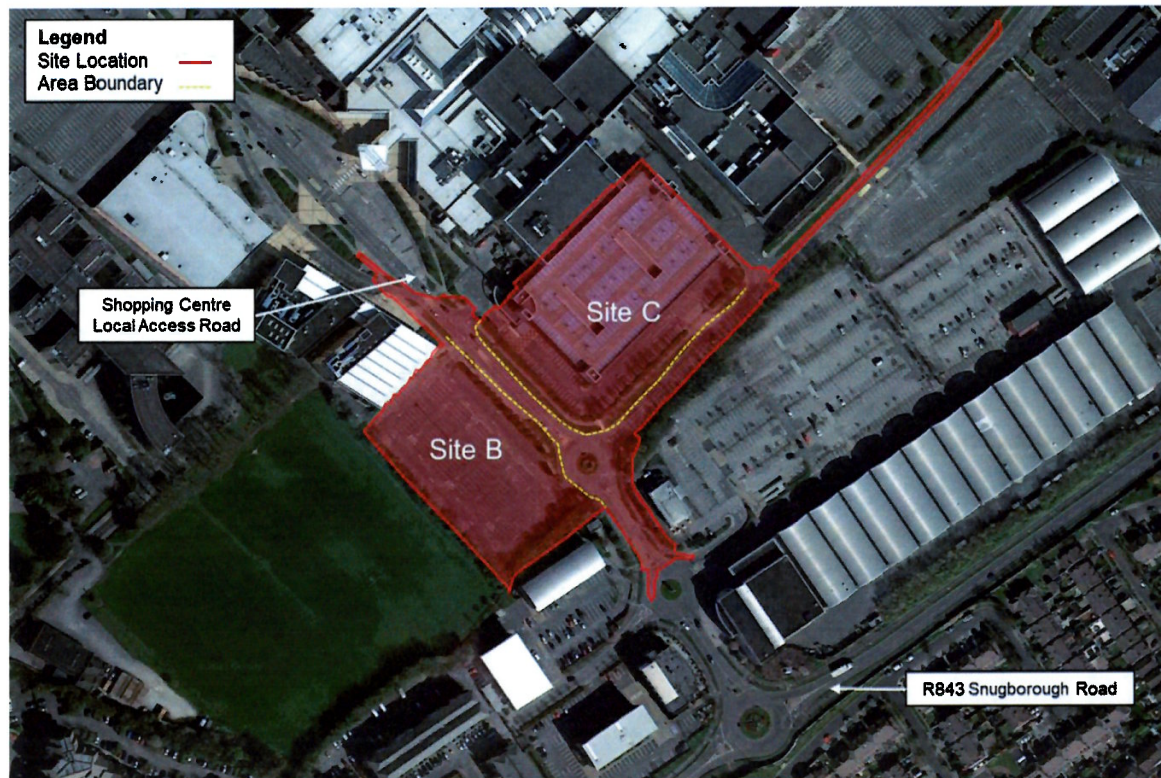


Figure 13-1 Site Location





*Figure 13-2: Site Location Inside Blanchardstown Shopping Centre*

As shown above, the development proposal spreads over two areas, labelled as sites B and C in Figure 13.2. Site B comprises the car park directly to the southeast of Blanchardstown Library and Site C comprises the area in and around the existing Multi-Storey Car Park.

#### **13.1.2.2 Overview of Proposed development**

The proposed development comprises:

- 352 no. apartments (comprising 44 no. studios, 132 no. 1-bed apartments, 155 no. 2-bed apartments, and 21 no. 3-bed apartments) which should be distributed as follow:
  - Site B: 225 no. apartment units (in the form of 36 no. studios, 85 no. 1-bed units, 91 no. 2-bed units, and 13 no. 3-bed units);
  - Site C: 127 no. apartment units (in the form of 8 no. studios, 47 no. 1-bed units, 64 no. 2-bed units, and 8 no. 3-bed units);
- Ancillary resident amenity floorspace
- 5 no. commercial units (511 sq.m in total) to accommodate Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility.
- 205 no. residential car parking spaces including 11 no. disabled spaces and 10 no. electric charging spaces; and
- 730 no. cycle parking spaces.

The proposed apartments have been designed in accordance with national best practice, namely the Design Manual for Urban Roads and Streets (DMURS) and the Design Standards for New Apartment, Guidelines for Planning Authorities. A more detailed description of the

proposed development, including proposed site access arrangements and internal layout is provided within Section 13.7 of this Chapter.

### 13.1.2.3 Multi-Storey Car Park Additional Decks

In addition to the proposal described above, the works to be delivered with the proposed development include the provision of two additional levels to the Multi-Storey Car Park, permitted in 2006 (under Reg. Ref.: F05A/1409). These two new decks will accommodate a total of 458 no. car parking spaces.

The abovementioned additional spaces will allow the introduction of 90 residential spaces for the proposed development and relocation of 368 surface retail spaces, which are currently accommodated within the car parks where the development is proposed.

### 13.1.3 Methodology

This chapter has been prepared taking the following documents into account:

- *Fingal County Council Development Plan 2016-2022*, Fingal County Council;
- *Blanchardstown Urban Structure Plan 2007*, Fingal County Council;
- *TII Traffic and Transport Assessment Guidelines*, Transport Infrastructure Ireland 2014;
- *Design Manual for Urban Roads and Streets (DMURS)*, 2019, Department of Transport, Tourism and Sport & Department of Environment, Community and Local Government;
- *Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities*, December 2020, Department of Housing, Planning and Local Government;

Table 1.4 of the Traffic Management Guidelines (DoT/ DoEHLG/ DTO, 2003) and Table 2.1 of TII's Traffic and Transport Assessment Guidelines (PE-PDV-02045), May 2014 sets out thresholds above which a Transport Assessment is automatically required (see Figure 13-3).

Table 2.1 Traffic Management Guidelines Thresholds For Transport Assessments
Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.
Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists or the location is sensitive.*
Residential development in excess of 200 dwellings.
Retail and leisure development in excess of 1,000m <sup>2</sup> .
Office, education and hospital development in excess of 2,500m <sup>2</sup> .
Industrial development in excess of 5,000m <sup>2</sup> .
Distribution and warehousing in excess of 10,000m <sup>2</sup> .

\* In locations that experience particularly heavy congestion and when traffic flows from a proposed development are less than 5% of the traffic flows on the adjoining road, a Transport Assessment may still be required. When in doubt, the requirement for a Transport Assessment should always be scoped with the relevant local authority.

Figure 13-3: Thresholds for Transport Assessment



The development is a residential development of more than 200 dwellings; therefore, a transport assessment is required.

The methodology used to conduct the assessment is as follows:

- **Establishing Baseline Conditions:** The existing conditions will be recorded including existing site location and use, surrounding road network, public transport services, baseline traffic volumes, existing pedestrian and cycle facilities, and existing Road Safety performance within the Local Area.
- **Defining the Proposed development:** This includes proposed no. apartments, access arrangements, parking provision, and trip generation.
- **Assessing the Impact of the Development:** The impact of the proposed development on the surrounding road network will be assessed using Arcady/ Linsig Modelling Package.

The future development analysis has regard to the adjoining Major Town Centre zoned lands to the south of Site B and the future potential for residential development. As this development has not yet undergone the planning process, an indicative development size of 500 units has been used to estimate trip generation. This estimate has been guided by FCC as part of the pre-application discussions. Furthermore, the Horizon Development in the vicinity of the site is the proposed BusConnects Scheme which incorporates the local road network has also been taken into consideration.

Indicative trip generation from these developments are used to estimate Future Year and Horizon Year traffic flows as an alternative to TII growth factors.

- **Mitigation:** Mitigation measures will then be proposed to offset any impacts that may result from the development.

#### **13.1.4 Scoping**

A number of pre-planning meetings were conducted with Fingal County Council in relation to the scheme. Several comments were provided by the Council representatives in relation to the design and transport assessment such as the following:

- *Appropriate cycle parking provision is critical to compensate the low car parking provision.*
- *Balance of parking for 3 beds a minimum of 1 space per unit should be considered.*
- *Residential parking in multi-story needs to be separated and segregated from public parking*
- *Cycle infrastructure for residents. Cargo bike parking spaces for apartments and lockable unit for apartments.*
- *Upgrade all arms on the internal roundabouts to pedestrian and cycle friendly zebra crossings.*
- *Zoned lands to the south of site should show a suitable vehicle access as well as a pedestrian and cycle access this would be better placed to the west side of the development.*
- *Light rail reservation needs to be shown as it currently is shown as an open space to the front of the site.*
- *EV bike charging points must be provided.*
- *Layout for basement in details with dimensions etc.*

- *The inclusion of the zoned lands for housing on FCC lands to be taken into account in the Traffic Assessment.*

The transport elements of the proposal have been designed in accordance the comments provided by FCC. The methodology utilised for the assessment presented within this Chapter have been based on the comments from FCC transport pre-planning comments

### 13.1.5 Relevant National and Local Policy

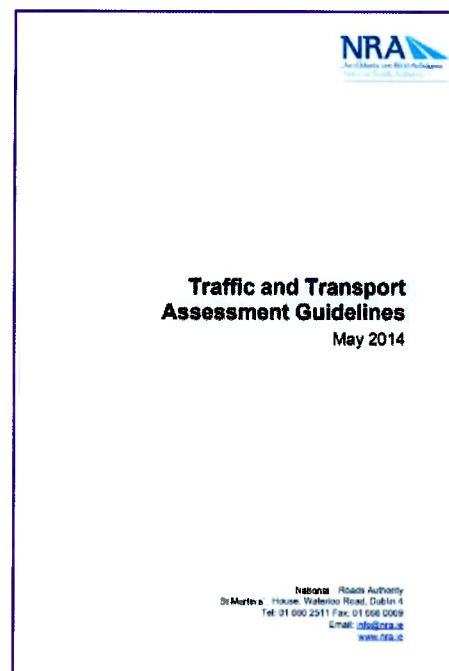
#### 13.1.5.1 National Policy

##### 13.1.5.1.1 Traffic and Transport Assessment Guidelines (2014)

Transport Infrastructure Ireland's (TII's) *Traffic and Transport Assessment (TTA) Guidelines (May 2014)* provides guidelines for best practice in relation to the preparation of a Traffic and Transport Assessment.

In relation to scoping, the guidance states:

*"The scoping study is a very important part of the TTA process. It is a precursor to the preparation of a TTA and should be undertaken at the earliest stages of planning for development. For a planning application, this phase may be the initial contact between the developer and the planning authority and, as such, the opportunity should be taken to emphasise the role of transport as both a possible asset and liability to the development. The planning authority should avail of such contact to address traffic and transport implications as an integral element of the development proposal."*



In relation to the Assessment:

*"The Traffic and Transport Assessment should be written as an impartial assessment of the traffic impacts of a scheme, and it should not be seen to be a "best case" promotion of the development. All impacts, whether positive or negative, should be recorded. The level of detail to be included within the report should be sufficient to enable an experienced practitioner to be able to follow all stages of the assessment process and to reach a similar set of results and conclusions."*

Within Table 2.2 of the TTA Guidelines, the following threshold is provided in relation to the requirement for a full TTA "where national roads are affected" i.e., the most onerous thresholds presented in the Guidelines:

"Housing - 100 dwellings within urban areas with a population equal to or greater than 30,000."

The threshold of 100 no. residential units contained within the preceding Guidelines is exceeded by the proposed development, as such a TTA is required.

### 13.1.5.1.2 Design Manual for Urban Roads and Streets (DMURS)

The *Design Manual for Urban Roads and Streets (DMURS)* was jointly published by the Department of Transport, Tourism and Sport and Department of Environment, Community and Local Government in 2013, and updated in 2019. The principles, approaches and standards set out in the Manual apply to the design of all urban roads and streets (streets and roads with a speed limit of 60 km/ h or less).

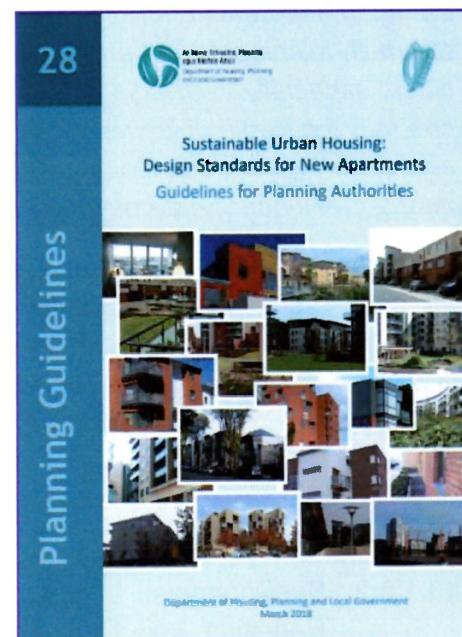
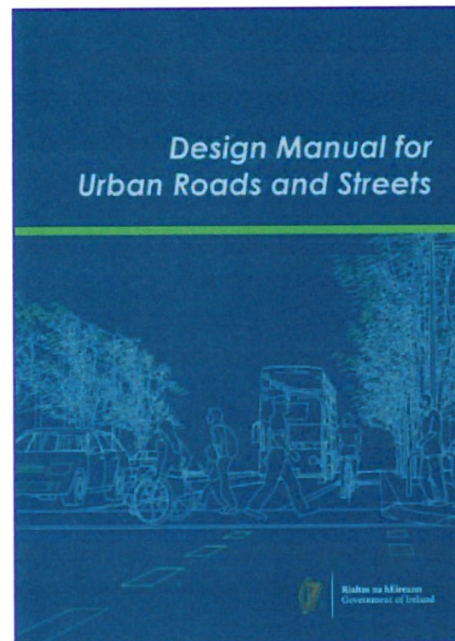
Section 4.3.3 of DMURS provides guidance in relation to corner radii at junctions and site accesses, advising that *“reducing corner radii will significantly improve pedestrian and cyclist safety at junctions by lowering the speed at which vehicles can turn corners and by increasing inter-visibility between users. Reduced corner radii also assist in the creation of more compact junctions that also align crossing points with desire lines and reduce crossing distances.”* It also recommends that *“where design speeds are low and movements by larger vehicles are infrequent, such as on Local streets, a maximum corner radii of 1-3m should be applied.”*

Section 4.3 of the Manual specifies that a *“minimum footway widths are based on the space needed for two wheelchairs to pass each other (1.8m). In densely populated areas and along busier streets, additional width must be provided to allow people to pass each other in larger groups.”*

### 13.1.5.1.3 Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities, December 2020

*Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities* was published in December 2020 and provides guidance on different aspects of new residential developments, including cycle parking and car parking provision.

In relation to cycle parking, Section 4.17 of the Design Standards state *“the accessibility to, and secure storage of, bicycles is a key concern for apartment residents”*, with specific guidance provided in relation to the location, quantity, design, and management of cycle parking facilities. In terms of cycle parking quantity, *“a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units.”*





The proposed development includes the provision of 549 no. bedrooms within 352 no. apartments. This indicates the requirement of 549 no. cycle parking spaces to accommodate residents and 176 no. cycle parking spaces to accommodate visitors (725 no. spaces in total). A total of 730 no. cycle parking spaces will be provided with the proposed development, in excess of the requirements established within this guidance.

In terms of qualitative requirements, it is stressed that cycle storage/ parking facilities shall be sufficiently accessible, offer an adequate level of safety and security, be well-lit and properly maintained. It is further recommended that cycle parking is provided within “a *dedicated facility of permanent construction.*”

The proposed development cycle parking provision (both capacity and specification) is consistent with the Design Standards’ requirements presented above.

Section 4.18 of the Design Standards stipulates that car parking provision at apartment developments shall have regard to the type of location, based on “*proximity and accessibility criteria*”. As per Section 4.22, “*as a benchmark guideline for apartments in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking, such as one space every 3-4 apartments, should generally be required.*” However, as per Sections 4.19 and 4.20 “*in larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. (...) These locations are most likely to be in cities, especially in or adjacent to (i.e., within 15 minutes walking distance of) city centres or centrally located employment locations. This includes 10 minutes walking distance of DART, commuter rail or Luas stops or within 5 minutes walking distance of high frequency (min 10 minute peak hour frequency) bus services.*”

As detailed above, the Design Standards recommend a reduced level of car parking provision for highly accessible sites which are well served by alternative transport modes. As the application site is located within a short walk from several bus stops with high frequency services (see section 13.1.6.4), and short walk from the amenities and retail available within Blanchardstown Shopping Centre, a reduced level of on-site car parking provision is deemed entirely consistent with its policy provisions.

### **13.1.5.2 Regional Policy**

#### **13.1.5.2.1 BusConnects: Bus Network Redesign and Core Bus Corridors Project**



The ‘BusConnects’ programme was launched by the National Transport Authority (NTA) in May 2017 and is described as “a plan to fundamentally transform Dublin’s bus system, so that journeys by bus will be fast, reliable, punctual, convenient and affordable. It will enable more people to travel by bus than ever before and allow bus commuting to become a viable and attractive choice for employees, students, shoppers and visitors.”

The BusConnects programme contains three key elements:



- Dublin Area Bus Network Redesign Project;
- fare and ticketing enhancements; and
- better quality bus infrastructure, including the Core Bus Corridors Project.

The revised proposed bus network plan emerging from the Dublin Area Bus Network Redesign Project was published by the NTA in September 2020. Figure 13.4 presents the proposed bus network in the application site's surrounding.

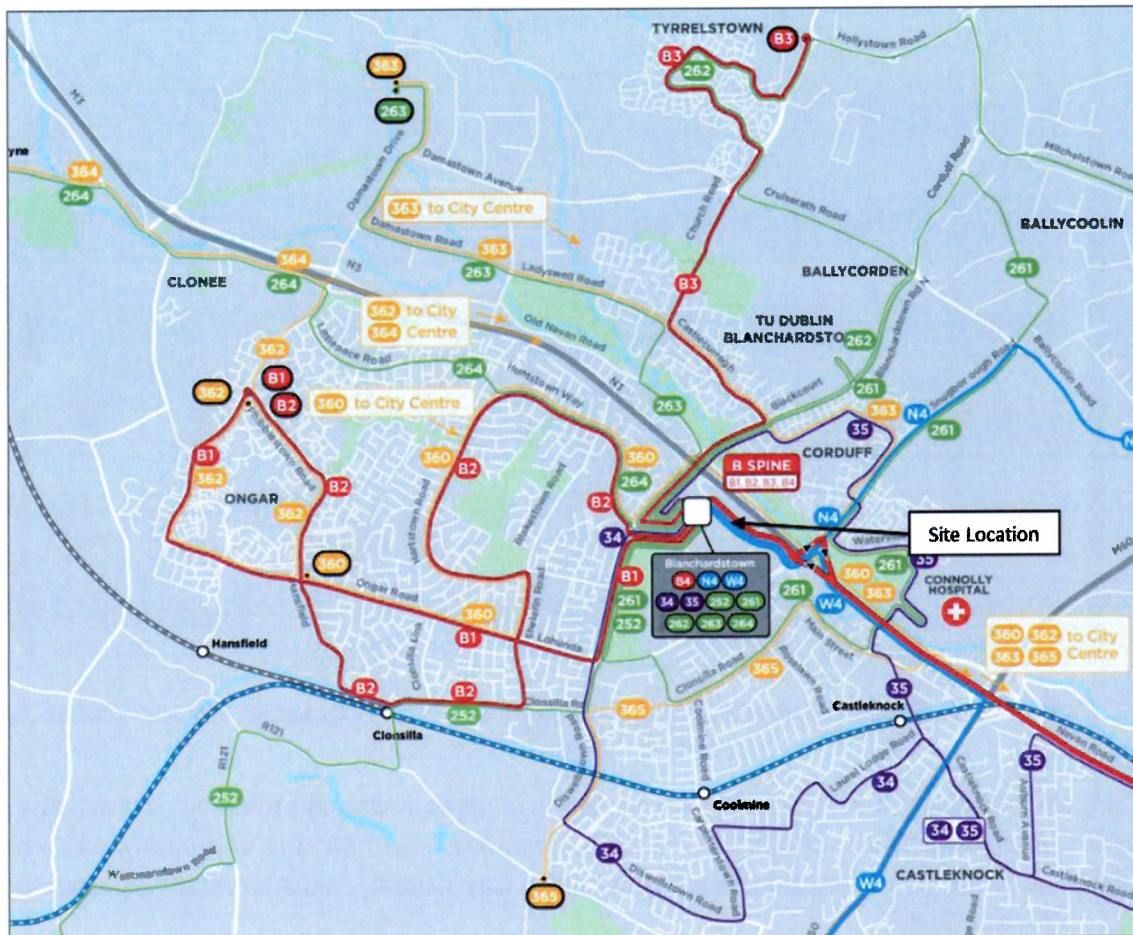


Figure 13-4: Proposed BusConnects network in vicinity to the site (Source: Blanchardstown Area Network Map)

As shown in Figure 13-4, the development site is located in close proximity to the bus terminus proposed inside the Blanchardstown Shopping Centre. The B Spine Corridor will be serviced every 4 minutes throughout the day, with a 15-minutes bus frequency. These services will connect the site with Dublin City Centre and several areas within north and south-west Dublin.

The bus network in the vicinity of the site will therefore remain high frequency in nature following implementation of the proposals contained within the Dublin Area Bus Network Redesign Project.

#### 13.1.5.2.2 Greater Dublin Area Cycle Network Plan (2013)

The Greater Dublin Area Cycle Network Plan was published by the NTA in December 2013 and sets out proposals to develop a cycle network within the region to achieve the national 10% cycle mode share target. It proposes a comprehensive and integrated network of

infrastructure comprising primary, secondary, greenway and inter-urban components. The network within the development site's vicinity is presented in Figure 13-5.

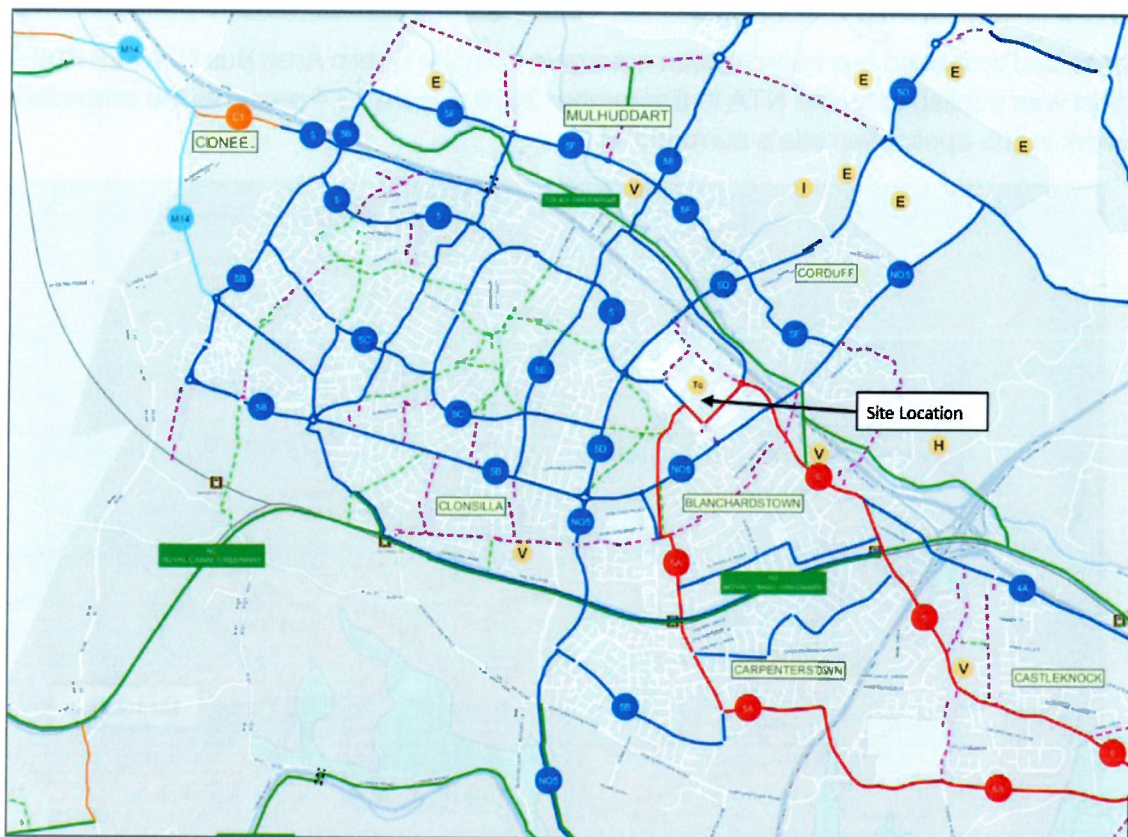


Figure 13-5: Cycle Network Plan in the Vicinity of the Site (Source: Greater Dublin Area Cycle Network Plan, 2013)

As shown in Figure 13-5, the development Site is located in closed proximity to the Tolka and Royal Canal Greenways, primary cycle routes number 5 and 5A and secondary cycle route 5b-5F. These routes extend from the site to Dublin City Centre, and several areas within north and south-west Dublin.

### 13.1.5.3 Local Policy

#### 13.1.5.3.1 Fingal County Council Development Plan 2017-2023

The *Fingal County Council Development Plan 2017-2023* sets out the Council's policies and objectives for development in the County over the period from 2017 through 2023.



The development of sustainable residential communities within Blanchardstown has been presented as an objective of the Council in the Development Plan. Objective SS12 in page 44 of the Plan aims to “Promote the Metropolitan Consolidation Towns of Swords and Blanchardstown as Fingal’s primary growth centres for residential development in line with the County’s Settlement Hierarchy.”

Chapter 4 of the Plan presents development strategy of Blanchardstown to include “the provision of civic, cultural, retail, commercial, residential and employment activity within Blanchardstown at a level appropriate for a Metropolitan Consolidation Town.”

Chapter 12 of the plan provides guidance in relation to the car parking provision. The car parking standards for residential land uses are provided within Table 12.8 of the Plan.



Table 13-1 provides an overview of the car parking standards and the corresponding car parking allowed within the proposed development.

Table 13-1: FCC Car Parking Standards (Source: Table 12.8 FCC Development Plan 2017-2023) \* Land Use Retail - Shopping Centre assumed for commercial units to simplify analysis

Land Use	Proposed no. units/ Sqm	FCC Standard per Apartment	Car Parking Spaces Allowed
Studio/1-bed	175	1 per apartment	175
2-beds	151	1.5 per apartment	227
3-beds	21	2 per apartment	42
Retail - Shopping Centre	700 sqm	1 per 20 sqm	35
<b>Total</b>			<b>479</b>

As shown on Table 13-1, a total of 477 no. car parking spaces can be provided with the proposed development. A reduced provision of 205 no. Residential Car Parking spaces is proposed, of which,

- 113 no. spaces will be provided at ground floor in Site B;
- 90 no. spaces will be provided across the two new decks of the Multi-Storey Car Park; and
- 2 no. spaces will be provided at ground level in Site C.

It is anticipated that parking demand for the commercial units will be accommodated within the general mix of spaces inside the Multi-Storey Car Park. A detail breakdown of the car parking allocation for the different land uses is presented within section 13.7.3 of this Chapter.

Due to the strategic location and good public transport available near the proposed development site, such reduced provision is in line with the recommendations of the *Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities, December 2020* (see section 13.1.5.1)

The Plan provides guidelines in relation to car parking for electric vehicles and disable users. It is stated that “One space or more per 100 spaces should be reserved for disabled parking bays and one space or more per 100 spaces should be reserved for electric vehicles with charging facilities.” In accordance with this, a total of 11 no. disable parking and 10 no. electric vehicle parking will be provided with the proposed development.

In relation to cycle parking provision, Table 12.9 of the Plan sets out the Bicycle Parking Rates for all new developments in the County.

Table 13-2 provides an overview of the cycle parking standards and the corresponding cycle parking required for the development

Table 13-2: FCC Cycle Parking Standards (Source: Table 12.9 FCC Development Plan 2017-2023) \* Land Use Retail - Shopping Centre assumed for commercial units to simplify analysis

Land Use	Standard	Visitors	No. Proposed Apartments	Cycle Parking Spaces Required
Apartment, townhouse 1 bedroom	1 per apartment	1 per 5 apartments	352	424
Commercial units*	1 per 100 sqm	-	511 sqm	5

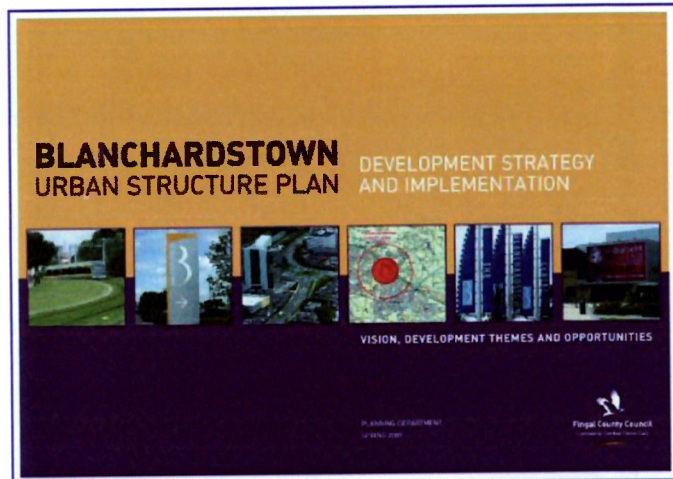
As shown on Table 13-2 above, a total of 423 no. cycle parking spaces must be provided with the proposed development. A total of 730. no cycle parking spaces are proposed in excess of the Development Plan Standards.

Cycle parking provision for the proposed development has been designed in accordance with the standards presented within the *Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities, December 2020*, discussed in Section 13.5.1 of this Chapter.



### 13.1.5.3.2 Blanchardstown Urban Structure Plan 2007

The Blanchardstown Town Centre Development Framework / Masterplan (non-statutory) was adopted in 2009 to provide a comprehensive policy for Blanchardstown Town Centre. This built on the 2007 Urban Structure Plan which set out a vision and a framework for Blanchardstown. The Framework / Masterplan includes guidance on the scale of development, mix of land uses and the overall urban design elements for future development at the centre.



The proposed development has regard to the key principles of the Blanchardstown Town Centre Development Framework / Masterplan, however, the current Development Plan and national planning policy and guidelines which support mixed use development, densification and increased building heights on Town Centre lands are considered to take precedence.

### 13.1.6 Existing Conditions

#### 13.1.6.1 Site Location

As noted previously the proposed development site is located within Blanchardstown Town Centre, Dublin 15. The subject site is currently occupied by 2 car parking areas, accommodating 378 no. car parking spaces.

#### 13.1.6.2 Existing Access Arrangements

##### 13.1.6.2.1 Vehicular Access

A present, Blanchardstown Shopping Centre is accessed via 5 no. access points on R121 Blanchardstown Road South, R843 Snugborough Road, and the N3. Figure 13-6, below, illustrates the location of these in relation to the local road network.

##### 13.1.6.2.2 Pedestrian Access

As shown on Figure 13-6, Pedestrian access is available from most roads surrounding the site. Footpaths are also available along the internal road network.

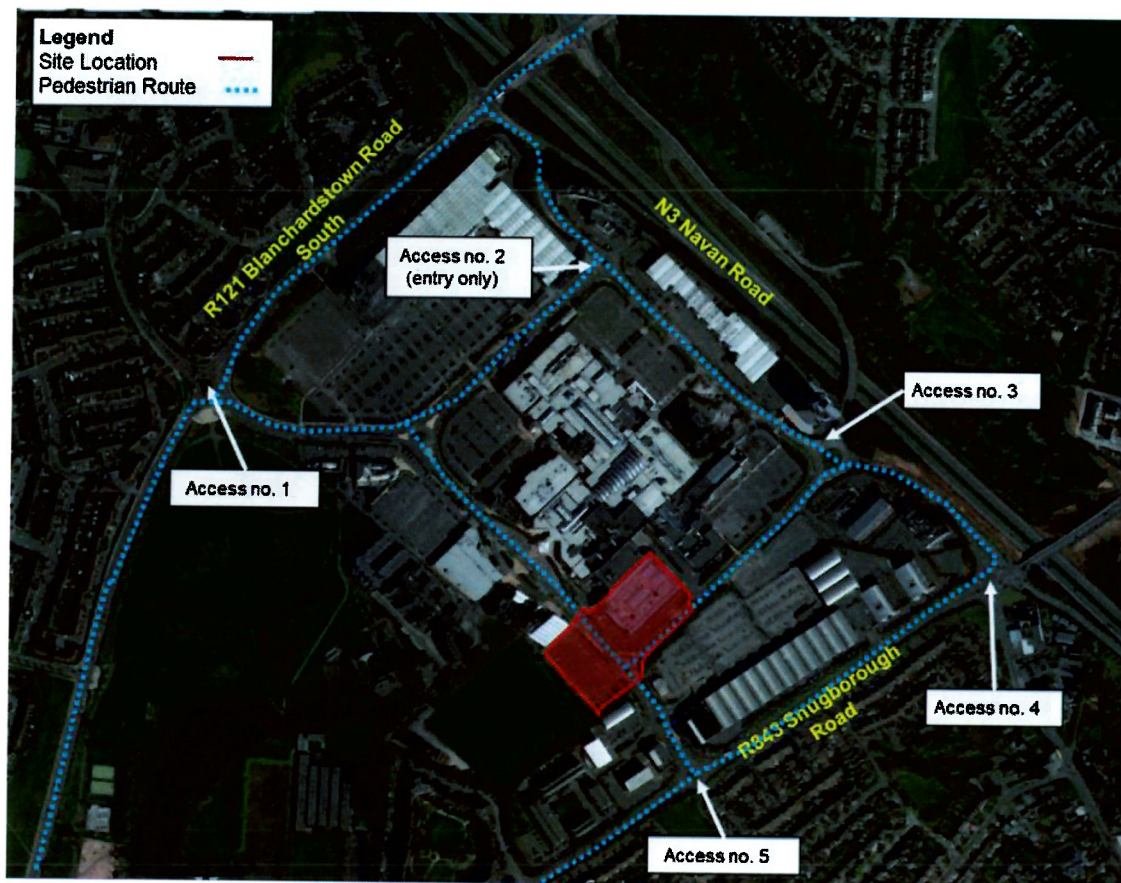


Figure 13-6: Existing Access Arrangements

### 13.1.6.3 Local Road Network

#### 13.1.6.3.1 R121 Blanchardstown Road South

R121 Blanchardstown Road South is a two-way regional road located to the northwest of the proposed development site. Near the site, this road accommodates 1 no. lane for general traffic on each direction, in addition to a bus lane on each direction, within a 12.5 metres wide carriageway. The R121 connects the site with Clonsilla to the south and Northwest Business Park to the north. Shared spaces for pedestrians and cyclists are available on both sides of the road.





### 13.1.6.3.2 R843 Snugborough Road

R843 Snugborough Road is a two-way regional road located to the southwest of the subject site. Near the site, this road accommodates 1 no. lane on each direction within a 7.5 metres wide carriageway. The R843 connects the site with Clonsilla to the south and Rosemount Business Park to the north. Shared spaces for pedestrians and cyclists are available on both sides of the road.



### 13.1.6.3.3 N3 Navan Road

The N3 Navan Road is located to the north of the development site. Near Blanchardstown Town Centre, it accommodates 2 no. lanes on each direction. This road provides access from the site to the M50, which located ca. 2.0 km to the east.

### 13.1.6.4 Existing Public Transport Services

Several Bus routes currently serve the Blanchardstown Town Centre. Figure 13-7 illustrates the location of the bus stops in the vicinity of the proposed development site.

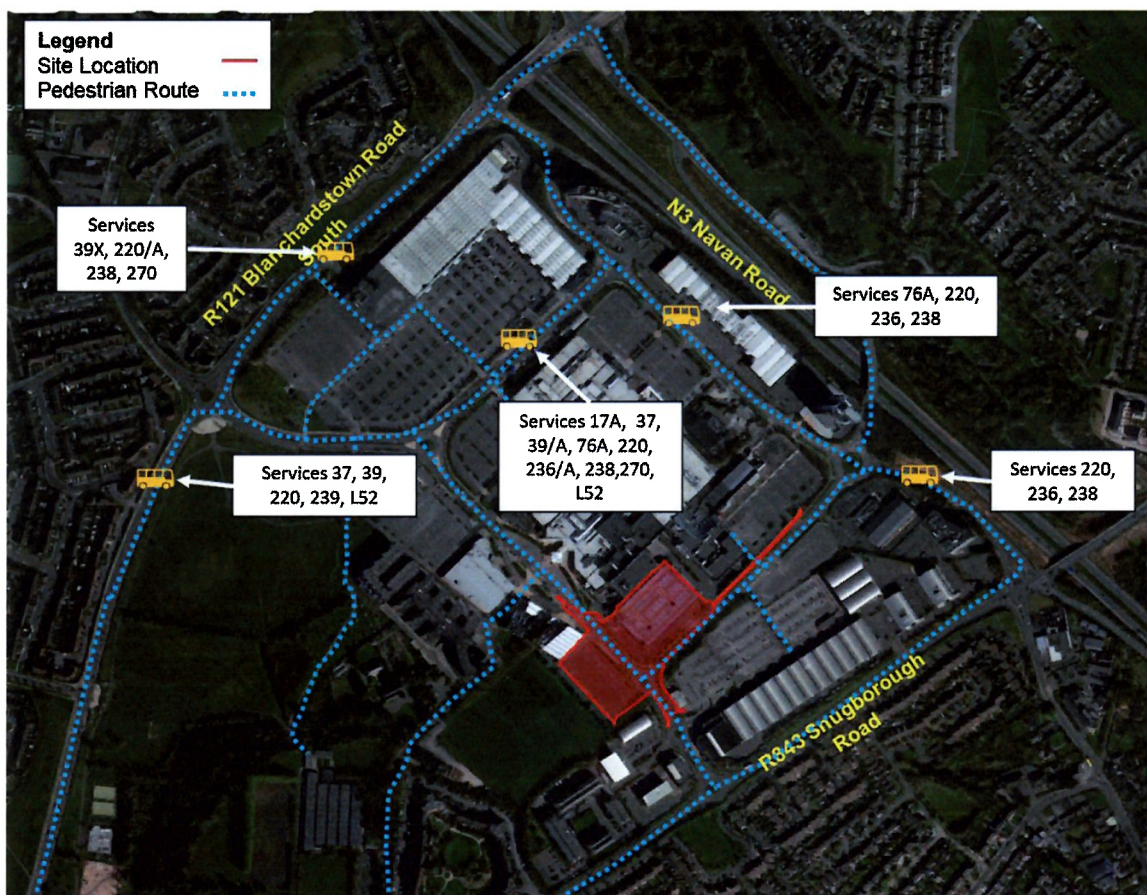


Figure 13-7: Public Transport stops in the Vicinity of the Site.

Table 13-3 summarises the bus routes available at these stops and their frequency.

*Table 13-3: Existing Public Transport Services*

Stop Name	Route No.	Route	Peak Hour Frequency
<b>Millennium Park</b>	37	Dublin City Centre to Blanchardstown Centre	10 minutes
	39	Dublin City Centre to Ongar	15-20 minutes
	220/a	DCU (The Helix) to Blanchardstown	60 minutes
	239	Liffey Valley to Blanchardstown	60 minutes
	L52	Adamstown Station to Blanchardstown,	60 minutes
<b>Retail Park</b>	39X	Dublin City Centre to Ongar	20 minutes (Afternoon only)
	238	Mulhuddart to Tyrrelstown	60 minutes
	270	Dunboyne to Blanchardstown	60 minutes
<b>Blanchardstown SC</b>	39a	UCD Belfield to Ongar	5-10 minutes
	17a	Kilbarrack - Blanchardstown	15-20 minutes (morning only)
	76a	Tallaght to Blanchardstown	60 minutes
	236A	Blanchardstown to IBM Campus	60 minutes (Afternoon peak hours only)
<b>Baie Bars Blanchardstown</b>	236	Blanchardstown to IBM Campus	60 minutes (Morning peak hours only)



### **13.1.6.5 Existing Traffic Volumes**

Due to the ongoing global COVID-19 pandemic and related restrictions implemented by the Irish Government in December 2020, traffic volumes in the road network surrounding the site have significantly decreased. As a result, it has not been possible to undertake traffic surveys to obtain updated traffic volumes at the time of the assessment. In light of this, and in order to determine baseline traffic conditions and provide a basis from which the future development's traffic impact can be analysed, historic data has been utilised for the assessment.

A classified 12-hour traffic survey was conducted at the junctions under study on Thursday 28th November 2019 (see section 13.9.1 for details). The counts were commissioned by BusConnects and carried out in accordance with NTA guidelines. The traffic flows for the network AM and PM peak hour were made available to CSEA for assessment purposes. The results of these surveys have been included within Appendix B of this Report.

It should be noted that this traffic survey was conducted before any government enforced COVID-19 travel restrictions advising against non-essential travel were implemented and therefore provide a robust representation of existing traffic volumes on the roads in the vicinity of the site. More up to date traffic volumes would not be worthwhile as traffic volumes are heavily influenced by the government enforced COVID-19 restrictions against non-essential work, non-essential travel, organised events, and social gatherings. No adjustments were made to normalise the data as it is not feasible to forecast future traffic demand due to influencing socio-economic factors such as further COVID-19 travel restrictions, unemployment rates, the shift to working from home and shift from local retailing to online shopping/deliveries. While the constraint in the data is recognised, it still represents the best available data.

### **13.1.6.6 Permitted Developments**

There is one development in the vicinity of the site that received planning/was constructed after the traffic counts were taken.

#### **13.1.6.6.1 Red Mall Extension (Planning Ref FW19A/0017)**

*Planning Ref FW19A/0017* is an amendment to *Planning Ref FW18A/0143* which is described as:

*The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m).*

*The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no.*

*bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.*

*The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147.*

This development is now fully operational and therefore the traffic counts in the associated TTA Chapter submitted as part of Planning Ref FW18A/0143 is added to the Do-Nothing assessment year (Table 13-4).

*Table 13-4: Estimated Trip Generation for the Red Mall Extension as per Appendix A of Planning Ref FW18A/0143*

Time Period	Arrivals	Departures	Total
<b>AM Peak (08:00-09:00)</b>	46	12	58
<b>PM Peak (17:00-18:00)</b>	27	53	80

#### **13.1.6.7 Existing pedestrian and cyclist facilities**

There are presently footpaths along both sides of all roads in the vicinity of the subject site. Shared facilities for cyclist and pedestrians are available along R843 Snugborough Road and R121 Blanchardstown Road South.

#### **13.1.6.8 Road Safety**

Data from the Road Safety Authority (RSA) collision database was used to assess the safety performance characteristics of the local road network. The database contains information on all reported collisions by severity of injury incurred (i.e., fatal, serious or minor) and by year the collision occurred. The following Figure 13-8 illustrates all collisions recorded on the road network surrounding the site during the 12-year period from 2005 to 2016, inclusive.

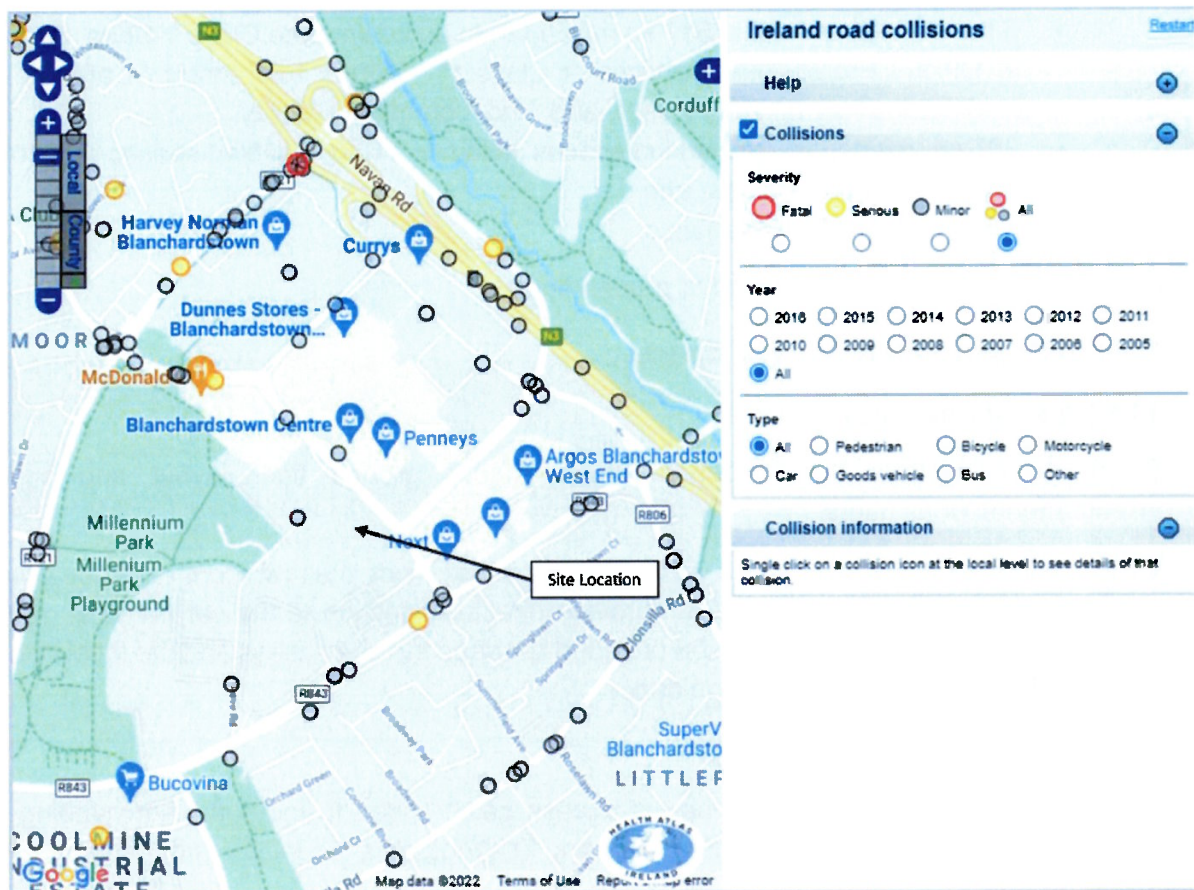


Figure 13-8: RSA Collisions Map

As can be seen in Figure 13-8, many collisions have been registered in the road network near the site during the 12-year assessment period.

The large quantity of collisions recorded can be attributed to the high volumes of traffic transiting through the network. Even though these have occurred in the vicinity of the subject site, the available data indicates that there are no location-specific road safety concerns of relevance to the Proposed development.

### 13.1.7 Proposed Development

#### 13.1.7.1 Proposed Development Description

The proposed development comprises:

- 352 no. apartments (comprising 44 no. studios, 132 no. 1-bed apartments, 155 no. 2-bed apartments, and 21 no. 3-bed apartments) which should be distributed as follow:
  - Site B: 225 no. apartment units (in the form of 36 no. studios, 85 no. 1-bed units, 91 no. 2-bed units, and 13 no. 3-bed units);
  - Site C: 127 no. apartment units (in the form of 8 no. studios, 47 no. 1-bed units, 64 no. 2-bed units, and 8 no. 3-bed units);
- Ancillary resident amenity floorspace.

- 5 no. commercial units (511 sq.m in total) to accommodate Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility.
- 205 no. residential car parking spaces including 11 no. disabled spaces and 10 no. electric charging spaces; and
- 730 no. cycle parking spaces.

All commercial units will be located at ground floor.

#### **13.1.7.2 Proposed Site Access/ Egress**

##### **13.1.7.2.1 Vehicular Access**

Figure 13-9 illustrate the Proposed Development's ground floor layout and access arrangements for all users.

Vehicular access to the sites will be via local access road inside the town centre. These access points will 5.5 metres in width and will provide direct connection to the car parks at ground level. Corner radii of 3.0 metres will be provided between the site access and the local Access Road in accordance with DMURS guidance.

##### **13.1.7.2.2 Pedestrian/Cyclist Access**

Pedestrian access to the site will be via access gates linked to footpaths surrounding the buildings and access point inside Site B car park. The footpaths around the proposed buildings will be minimum 2.0 metres wide.

A 3.0 metres cycle track will be provided along the northern and eastern side of Site B, facilitating cyclists transit around the development. Figure 13-9 illustrate the proposed development's ground floor layout and access arrangements for all users.



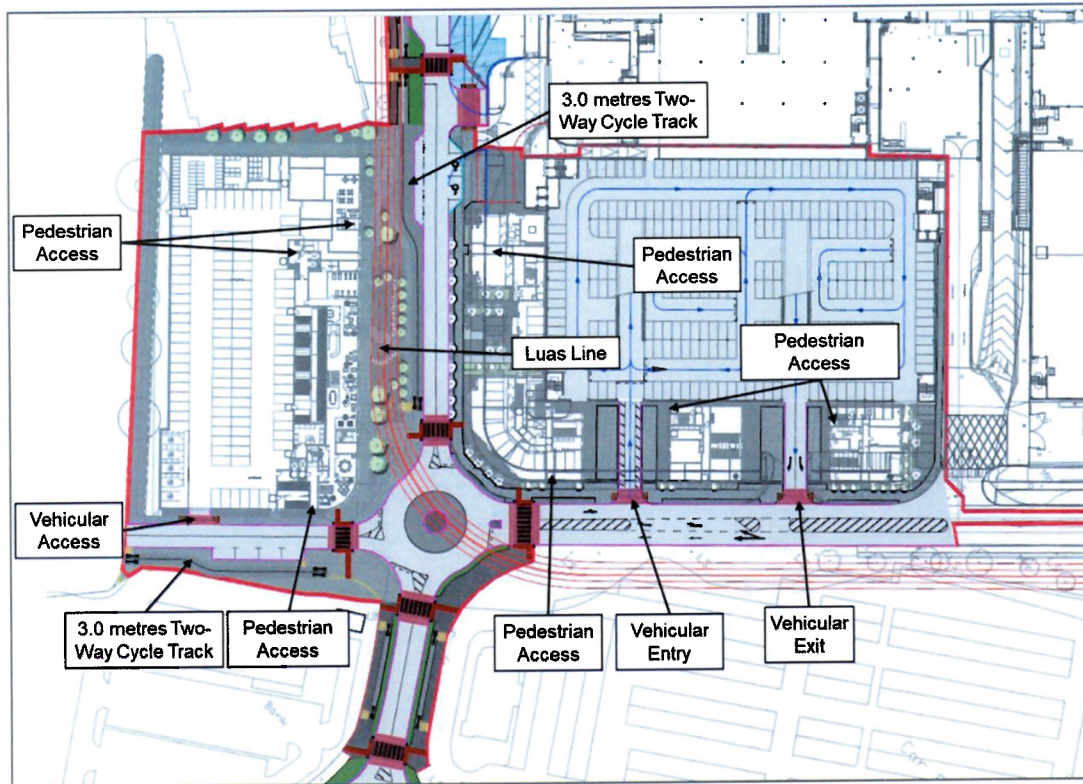


Figure 13-9: Proposed Access Arrangements

The scheme has been designed to ensure the LUAS/Metro West line as shown on the FCC Development Plan is not restricted in the future.

### 13.1.7.3 Car Parking

#### 13.1.7.3.1 Site B Car Parking

A total of 128 no. car parking bays are proposed to accommodate the future residents of Site B, divided within the following:

- 109 no. spaces will be provided at ground level inside the Site B car park.
- 4 no. spaces provided at ground level adjacent to the eastern local access road outside Site B.
- 15 no. spaces proposed within the additional decks of the Multi-storey Car Park.

It is anticipated that the 15 no. spaces proposed for site B within the Multi-Storey Car Park will be allocated as follow:

- 13 no. car parking spaces will be allocated to the residents of the 3-bed apartments.
- 2 no. car parking spaces will be marked as disable spaces and will be allocated as needed by the apartments' occupants.

The car parking spaces will comprise the following:

- 116 no. standard car parking bays;
- 5 no. electric car charging bays; and

- 7 no. disabled car parking bays.

Figure 13-10 illustrates the car parking arrangements provided for Site B. The car parking numbers presented in Figure 13-10 do not include the 15 no. bays proposed in the Multi-Storey Car Park.

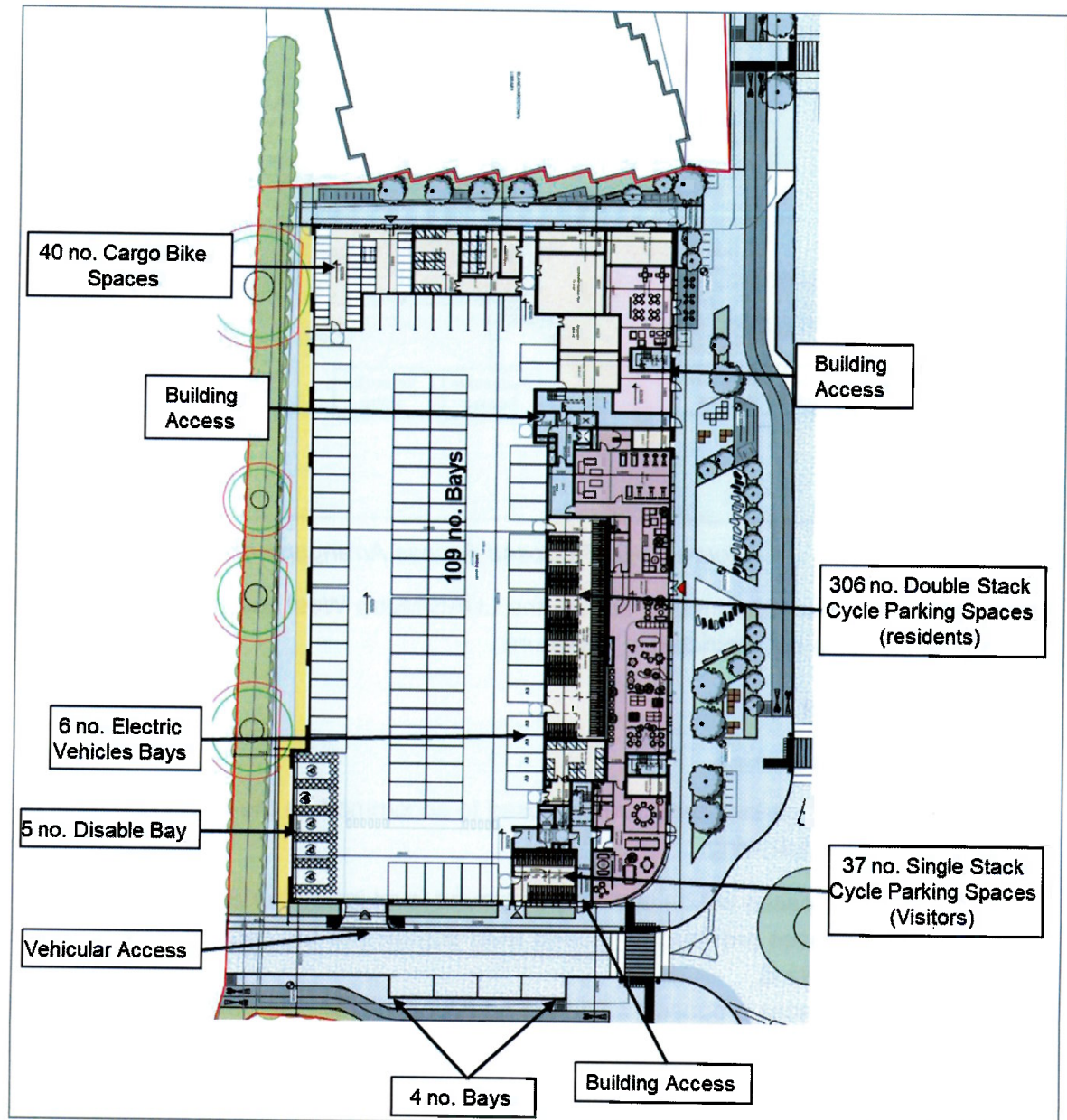


Figure 13-10: Proposed Car Parking and Cycle Parking Provision (Site B)

#### 13.1.7.3.2 Site C Car Parking

A total of 77 no. car parking bays are proposed to accommodate the residents of Site C, with 75 no. spaces provided within the 2 new decks of the Multi-storey Car Park, and 2 no. spaces provided at ground level in the southern side of the building.

The car parking spaces will comprise the following:

- 68 no. standard car parking bays;
- 5 no. electric car charging bays; and



- 4 no. disabled car parking bays (2 bays inside the Multi-storey Car Park and 2 bays at ground level).

Figure 13-11, below, illustrates the car parking and cycle arrangements provided for Site C at ground level.

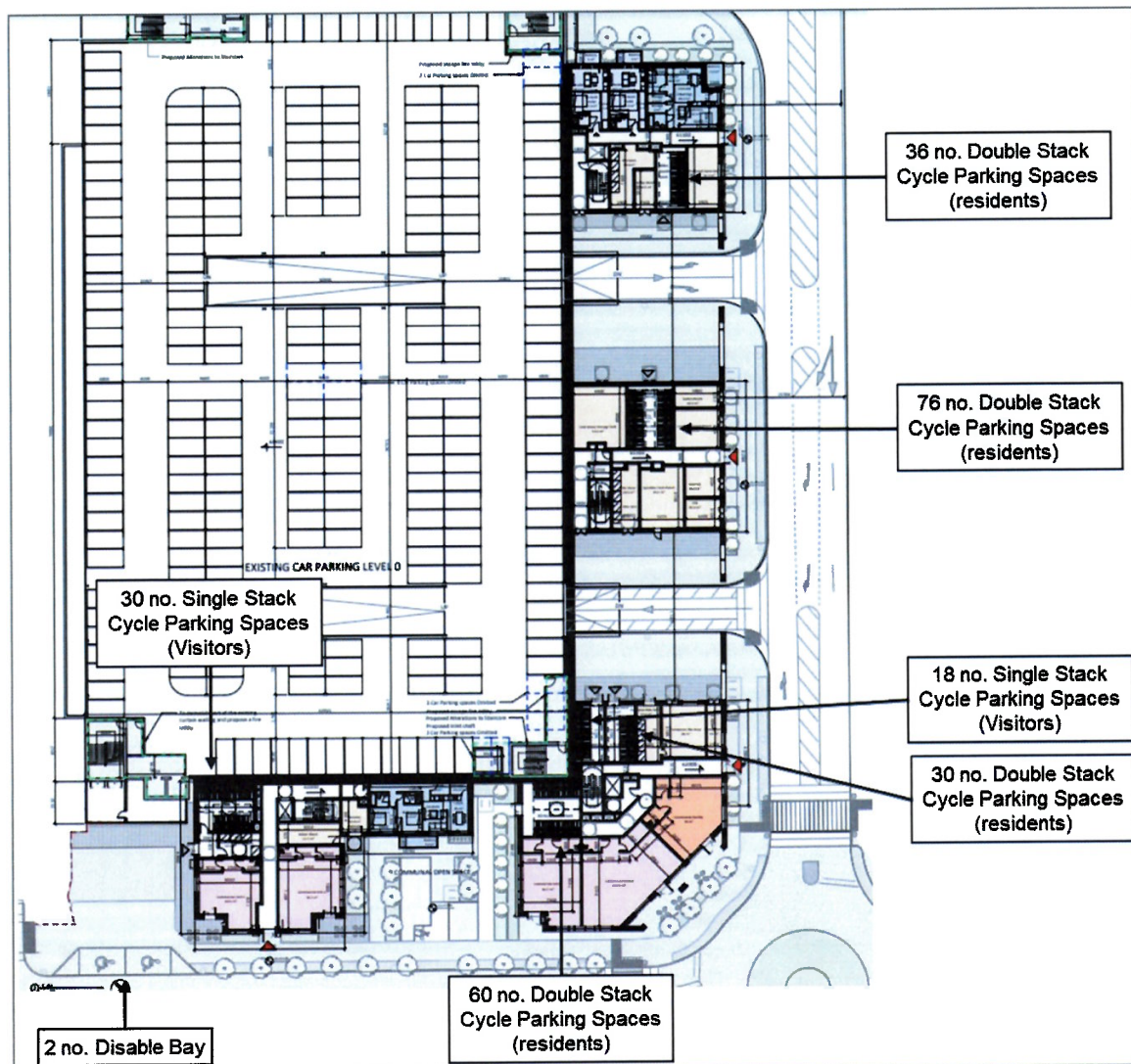


Figure 13-11: Proposed Ground Level Car Parking and Cycle Parking Provision (Site C)

Figure 13-12 and Figure 13-13 illustrate the car parking arrangements provided inside the Multi-Storey Car Park in decks number 3 and 4. The car parking numbers presented in these Figures, also include the 15 no. bays proposed for Site B in the Multi-Storey Car Park.

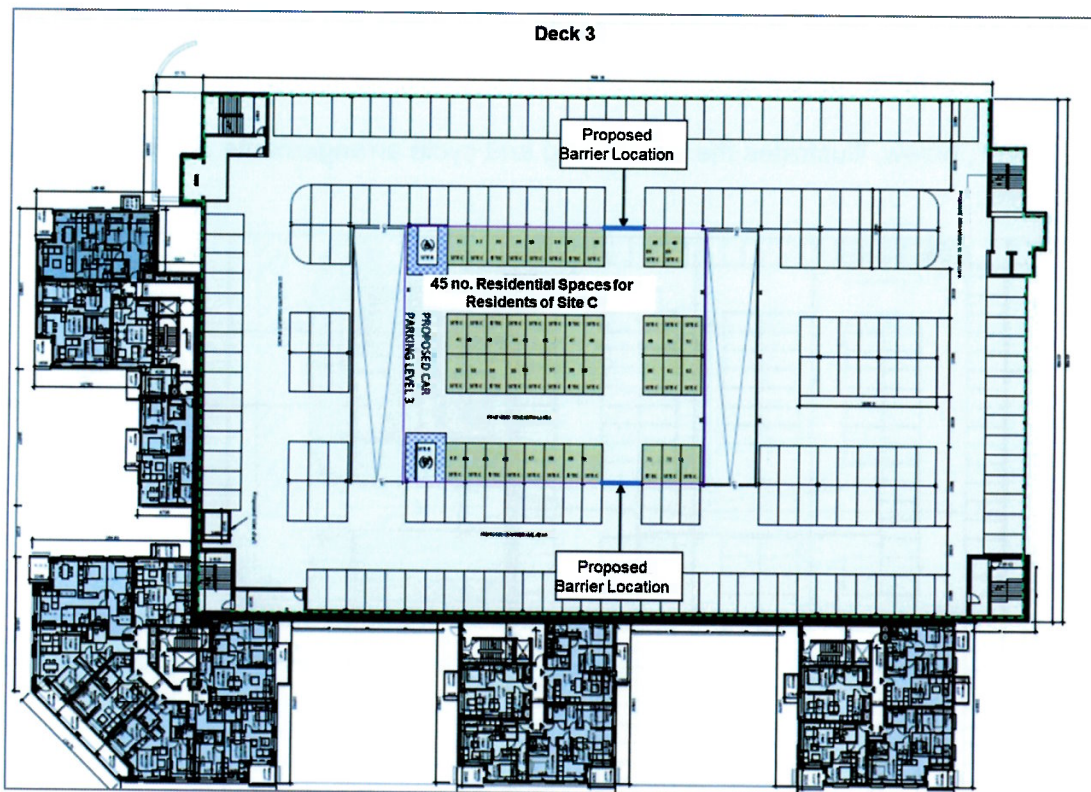


Figure 13-12: Proposed Multi-Storey Car Park Parking Provision (Deck 3)

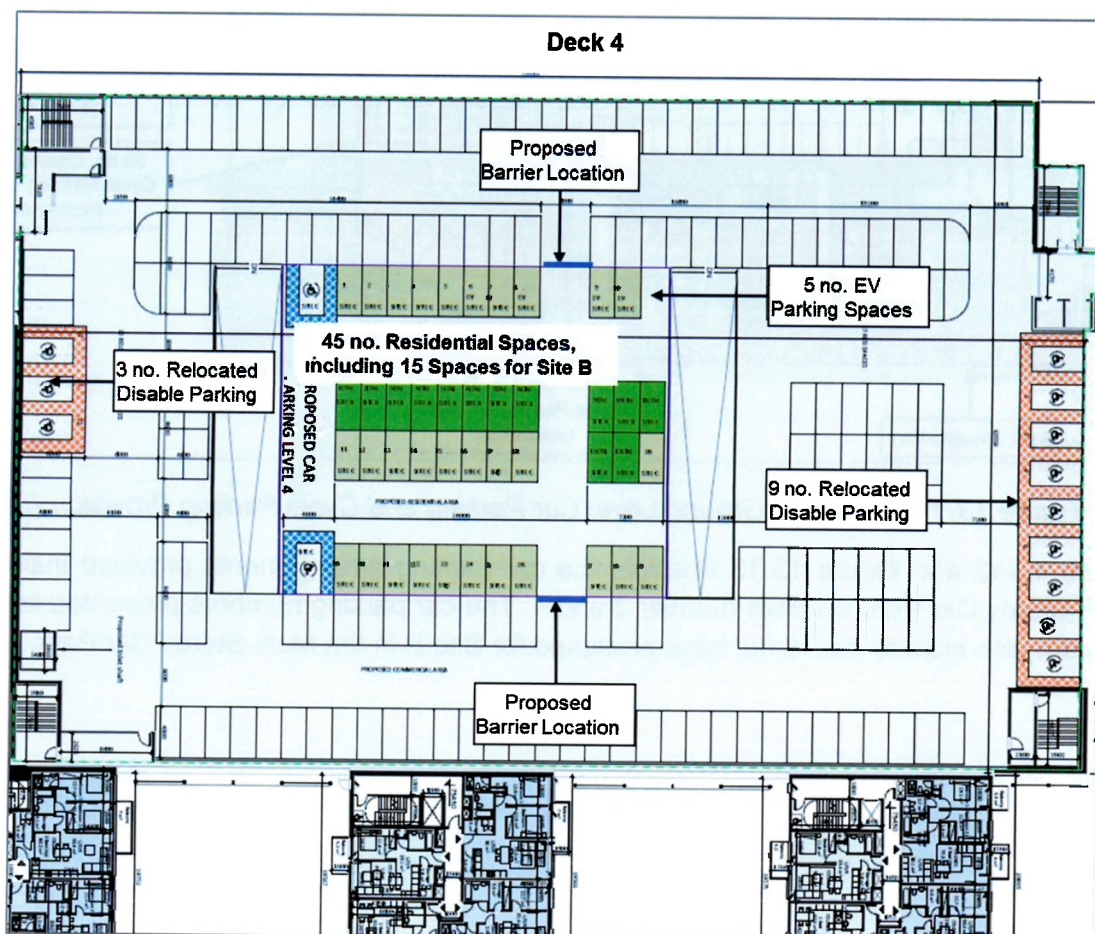


Figure 13-13: Proposed Multi-Storey Car Park Parking Provision (Deck 4)



A total of 45 no. car residential parking spaces are provided on each Deck (with 15 no. spaces allocated to Site B). As shown above the car parking spaces allocated for the residents will be provided in the centre of the decks. Two barriers will be provided to restrict the regular shopping centre users from circulating into this area of the car park. Car parking bays will be marked for residents' use only. 5 no. car parking spaces for electric vehicles are proposed for Site C.

As noted previously, the car parking demand for users of the commercial units proposed with the development will be accommodated within the general mix of bays inside the Multi-Storey Car Park.

As shown in Figure 13-13 the car parking spaces provided in the general mix of Deck 4 includes the provision of 12 no. relocated disable parking which are currently accommodated in the car parking areas where the development is proposed. Details on the impacts associated with the car parking reduction are discussed in Section 13.8 of this Chapter

#### **13.1.7.4 Cycle Parking**

##### **13.1.7.4.1 Site B Cycle Parking**

It is proposed to provide a total of 460 no. cycle parking spaces for Site B, of which 346 no. spaces will accommodate residents, 112 no. spaces will accommodate visitors, and 2 no. spaces will serve the commercial units. The cycle parking provision has been calculated in line with the standards set out within the *Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities* (see Sections 13.1.5.1 of this TTA for further details).

As shown in Figure 13-10 (see section 13.1.7.3), residential cycle parking for Site B will be provided in two compounds inside the car park. One of the compounds will accommodate 306 cycle parking spaces, layout as double stack spaces, and the remaining compound will have 40 no. individual cargo bike sheds. Figure 13-14, below, illustrates the layout of the double stacked stands proposed for the development.



*Figure 13-14: Double Stacked Cycle Parking Layout*

A total of 112 no. spaces will be provided for visitors. Of this, 37 spaces will be accommodated in a compound inside the car park, layout as single stacks, and the remaining 75 no. spaces will be accommodated around the building as Sheffield stands.

The 2 no. spaces proposed for the commercial units will also be accommodated outside the building as Sheffield stands.

#### **13.1.7.4.2 Site C Cycle Parking**

It is proposed to provide a total of 270 no. cycle parking spaces for Site C, of which 202 no. spaces will accommodate residents, 63 no. spaces will accommodate visitors, and 5 no. spaces will serve the commercial units.

As shown in Figure 13-11 residential cycle parking for site C will be provided in four different locations across the blocks, which will be layout as double stack spaces. 48 no. spaces for visitors will be provided inside two compounds, layout as single stacks, and the remaining 15 no. spaces will be provided around the building as Sheffield stands.

5 no. commercial cycle parking will be provided as Sheffield stands outside the building.

### 13.1.7.5 Proposed Changes to the Road Network

Several changes are proposed to the adjacent road network to ensure compliance with the guidelines established in DMURS, the efficient flow of traffic and the safety of all users. The proposed changes are as follow:

- Road access to the Blue Multi-deck carpark is improved by providing separate entrance and exit locations and improved traffic circulations and search patterns within the carpark. These improvements will reduce the current delays due to conflicting exit and entry right turn movements at the current carpark access.
- Reduction of the Main Street carriageway width in front of the library carpark from 9 metres to 6 metres.
- The roundabout directly outside the Multi-Storey Car Park will be changed to reduce circulating carriageway width to 1-lane only.
- Zebra crossings will be provided in all sides of the abovementioned roundabout, in accordance with the National Cycle manual design guidelines to assist pedestrian and cyclist movement.

The scheme has been designed to ensure the LUAS/Metro West line as shown on the *FCC Development Plan* is not restricted in the future.

### 13.1.7.6 Proposed development Trip Generation

Vehicular trip rates were estimated for the proposed development using TRICS database for 'Land Use 03 Residential/ Flats Privately Owned' and 'Land Use 01 - Retail/M - Mixed Shopping Malls'. The proposed development is predicted to generate an additional 636 no. trips a day, between the hours of 07:00 and 21:00. Table 13-5 below sets out the total number of arrivals and departures estimated to be generated by the proposed development during the network peak periods and throughout the day.

*Table 13-5: Daily Trips Generated by Development estimated from TRICS Database*

Time Period	Arrivals	Departures	Total
<b>AM Peak (08:00-09:00)</b>	18	38	56
<b>PM Peak (17:00-18:00)</b>	31	19	50
<b>Full Day (07:00-21:00)</b>	311	325	636

From the daily trips presented above, a total of 485 no. trips will be associated with the residential elements of the development and the remaining 151 no. trips will be generated by the retail.

Full TRICS outputs report is included within Appendix H of this Report.

### 13.1.8 Parking Reduction Impacts

#### 13.1.8.1 Blanchardstown Shopping Centre Parking Survey

##### 13.1.8.1.1 Overall Car parking Occupancy

A parking survey was undertaken in Blanchardstown Shopping Centre over the course of 3 days on November 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup>, 2019. The data was collected from all 9 parking areas

between 07:00am and 08:00pm. The results survey results obtained for the areas under study shown in Figure 13-15 and Figure 13-16.

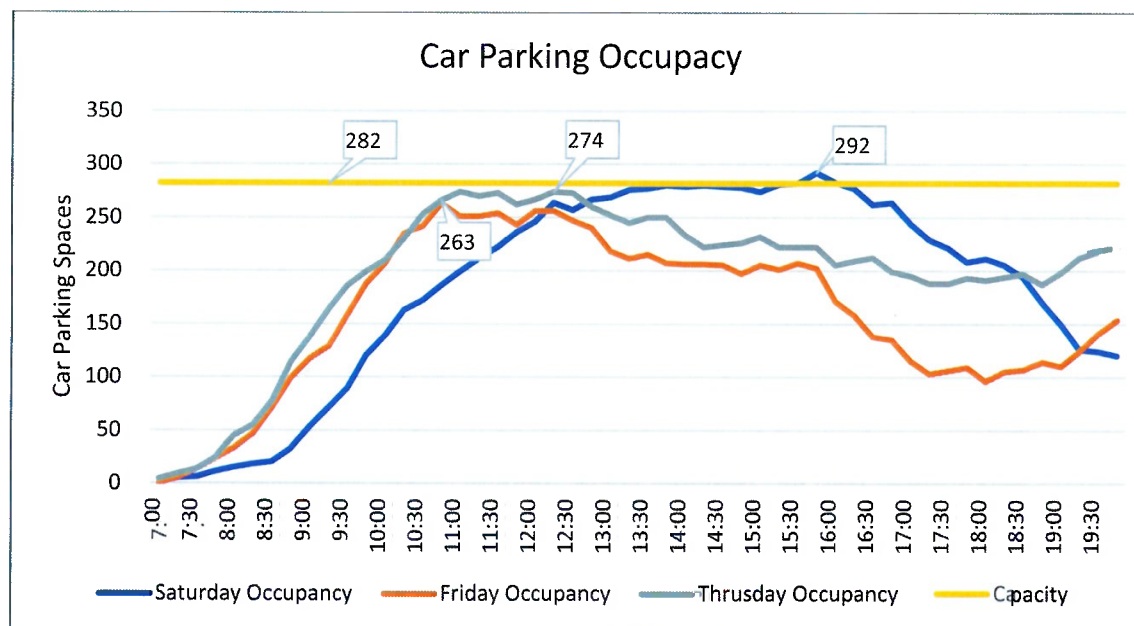


Figure 13-15: Existing Car Parking Occupancy (Site B)

As shown above, Saturday was determined to be the busiest day for Site B with a peak car parking occupancy of 292. This represents around 104% occupancy rate. The Thursday and Friday peak occupancy obtained were 274 and 263, respectively.

Figure 13-16, below, presents the car parking occupancy for Site C (including all spaces inside the Multi-Storey Car Park).

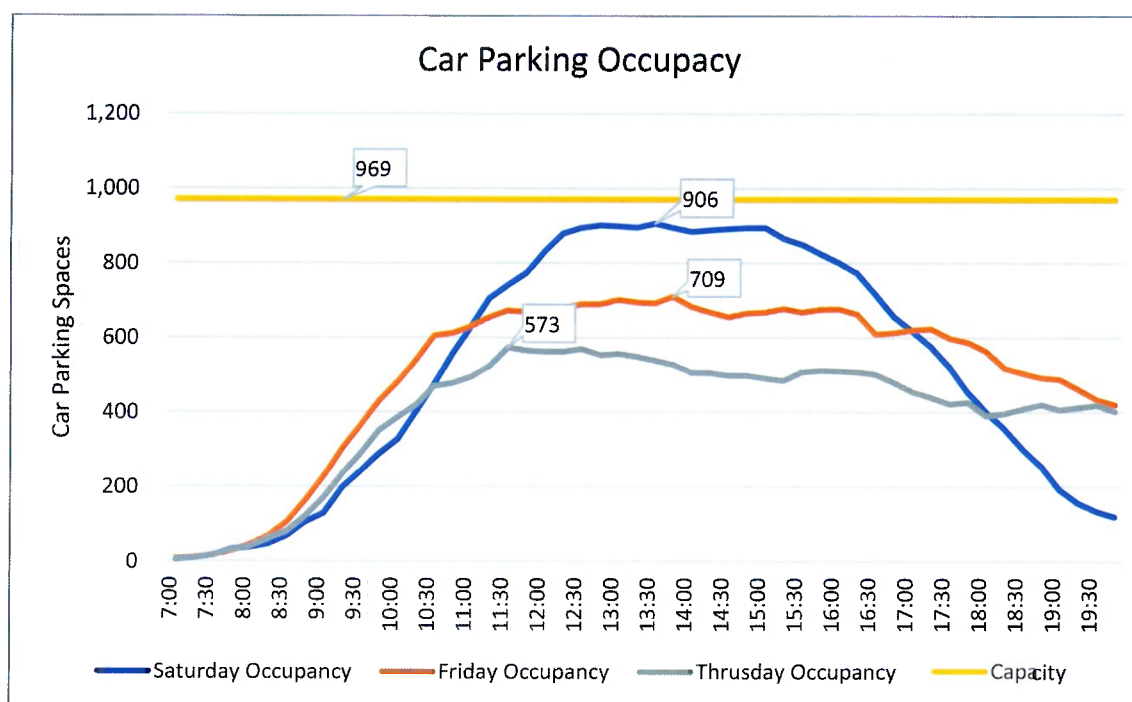


Figure 13-16: Existing Car Parking Occupancy (Site C)



As shown above, Saturday was also determined to be the busiest day for Site C with a peak car parking occupancy of 906. This represents around 94% occupancy rate. The Thursday and Friday peak occupancy obtained were 573 and 709, respectively.

Since the survey data was collected during the month of November, it must be noted that the analysis presented above represents a worst-case scenario in terms of carparking occupancy. It is very likely that the retail activity leading up to Christmas had a significant impact on the occupancy recorded for the survey days.

#### **13.1.8.2 Parking Reduction Impact**

The proposed development will remove/relocate a total of 475 existing retail car parking spaces from the following locations:

- 282 of these spaces will be removed from the at-grade carpark adjacent to the library (Site B);
- 96 at-grade spaces will be removed from the area adjacent to the existing Multi-Storey Car Park (Site C); and
- 47 no. spaces will be removed from the space available inside the existing decks of the Multi-Storey Car park to accommodate additional circulation areas.

Two additional levels to the Multi-Storey Car Park were permitted in 2006 (under *Reg. Ref.: F05A/1409*) and will be delivered as part of the proposed development. These two additional decks will accommodate a total of 458 no. car parking spaces.

The abovementioned additional spaces will allow the relocation of 368 surface retail spaces, currently accommodated where the development will be delivered, and the introduction of 90 residential spaces. Therefore, a total of 57 no. retail car parking spaces will be lost as a result of the proposed development.

The car parking in proposed for Deck 4 includes the provision of 12 no. relocated disable parking which are currently accommodated in the car parking areas where the development is proposed.

As noted in previous section, the survey data was collected during the month of November, it must be noted that the analysis presented above represents a worst-case scenario in terms of carparking occupancy. It is very likely that the retail activity leading up to Christmas had a significant impact on the occupancy recorded for the survey days, and the number for regular months is lower than what is presented above.

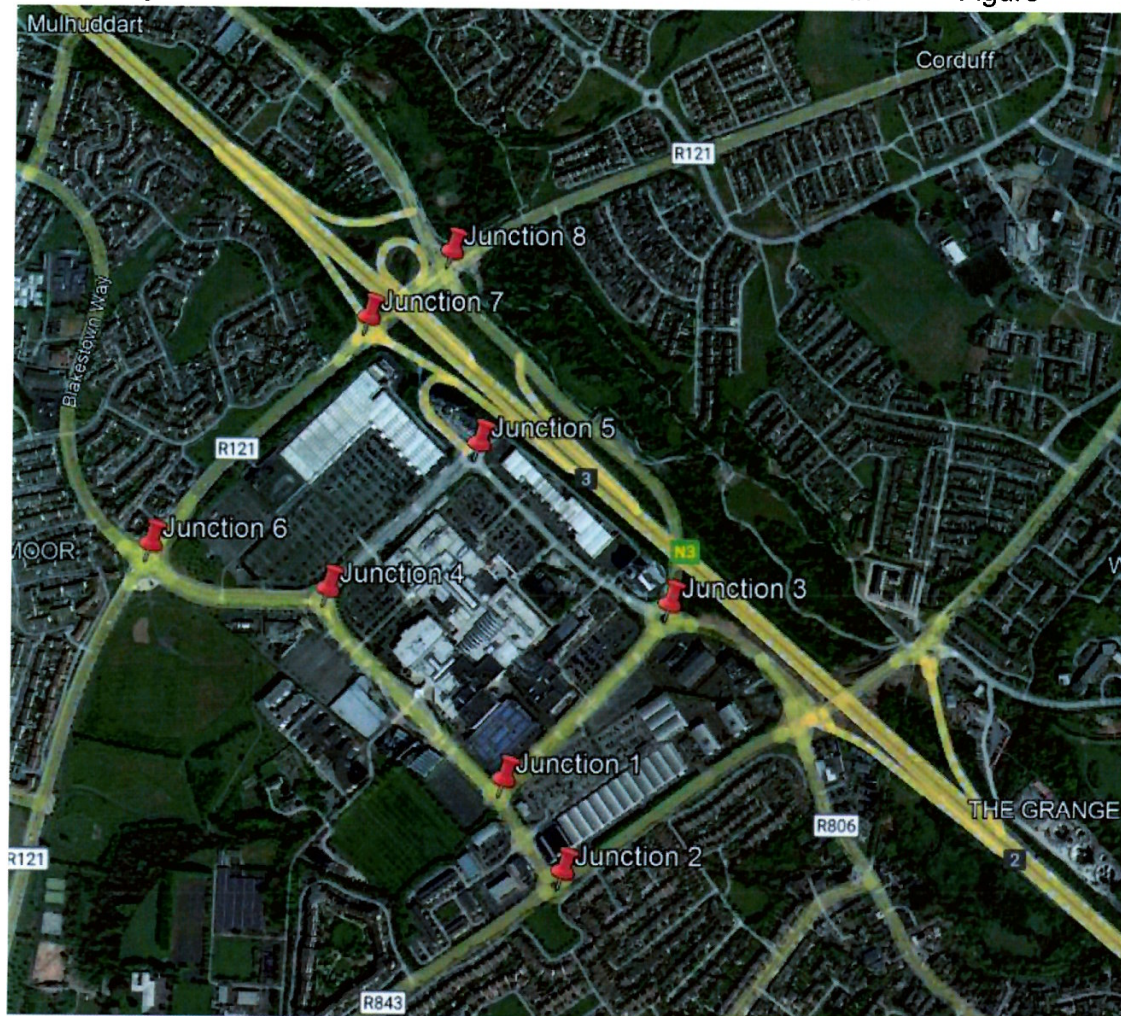
Furthermore, a mode shift from private car to public transport and walking will be experienced due to the improvements expected as part of BusConnects and the improvements to the walking facilities implemented in the area. This will reduce the car parking demand inside the shopping centre as less people will drive to the area.

### **13.1.9 Proposed Development Traffic Impact**

#### **13.1.9.1 Junction Network Modelled**

The junction network modelled includes the main junctions leading to/from the Proposed development site to the main road network. The junctions include 2 internal junctions of Blanchardstown Town Centre, the 4 junctions that connect the Blanchardstown Town Centre

to the wider road network and 2 junctions that link the Blanchardstown Road (R121) to the N3. These junctions cater for the majority of the traffic associated with the Blanchardstown Town Centre as per the traffic counts (Appendix H) and therefore will adequately show the impact of the Proposed development on traffic volumes within the vicinity of the site. Outside of these junctions, it is expected that the traffic generated by the Proposed development will dissipate and be diluted by the background traffic volumes to the extent that the impact is imperceptible. The junctions modelled are shown in Figure 13-17.



*Figure 13-17: Junction Network Modelled*

The junctions are described as:

- Junction 1 – Junction of South Street, South Street Extension, East Street and Area 1
- Junction 2 – South Street Extension, Snugborough Road N (R843) and Snugborough Road S (R843)
- Junction 3 – East Street, L3020, Slip Road Extension and North Street
- Junction 4 – South Street, West Street and Blakestown Way Extension
- Junction 5 – West Street, North Street, Crowne Plaza and North Street Extension
- Junction 6 - Blakestown Way Extension, Blakestown Way, Blanchardstown Road N (R121) and Blanchardstown Road S (R121)
- Junction 7 - Blanchardstown Road S (R121), Off-slip, On-slip and Blanchardstown Road N (Bridge) (R121)



- Junction 8 - Blanchardstown Road S (Bridge) (R121), Slip Road Extension, Mulhuddart Road and Blanchardstown Road N (R121)

It should be noted that the junctions intersecting the Snugborough Road (R843) and the N3 (located to the northeast of the site) were not considered. These junctions are currently being upgraded to increase capacity by up to 20% as part of the Snugborough Interchange upgrade. Therefore, these junctions can't be reliably modelled as there is no corresponding traffic data and junction layout.

### **13.1.9.2 Proposed Development Traffic**

#### **13.1.9.2.1 Trip Generation**

The expected trip generation for the Proposed Development is shown in Section 13.1.7.6 and summarised in Table 13-6, which follows.

*Table 13-6: Peak Hour Trips Generated by Development estimated from TRICS Database*

Time Period	Arrivals	Departures	Total
<b>AM Peak (08:00-09:00)</b>	18	38	56
<b>PM Peak (17:00-18:00)</b>	31	19	50

#### **13.1.9.2.2 Modal Choice**

For the purposes of this of this assessment, a worst-case scenario has been assumed for traffic generation by assuming all trips to the site are by private car. This represents a conservative approach as by not including for public transport and active travel modes, the impact of the maximum number of additional vehicles that could be generated by the Proposed Development is assessed.

#### **13.1.9.2.3 Trip Distribution**

It is assumed that all trips to the site will be new trips (i.e., trips that would not appear on the road network without the development). This represents the worst-case scenario for trip generation.

#### **13.1.9.2.4 Trip Assignment**

All operational trips will travel to and from the site via the junctions outlined above. It is assumed that the traffic originating from and destined to the Proposed Development site will continue to match the distribution of traffic currently accessing the site.

### **13.1.9.3 Analysis Scope, Assessment Years and Time Periods, and Assessment Scenarios**

#### **13.1.9.3.1 Analysis Scope**

The analysis presented within this Chapter has focused on assessing the development's impact on the 8 junctions outlined in Section 13.1.9.1.

#### **13.1.9.3.2 Assessment Years and Time Periods**

As recommended by TII's TTA Guidelines, the assessment years considered are the year of opening (YoO) which is assumed to be 2023, The Future Year, and the Horizon Year. The

assessment will focus on the critical time periods for the local road network i.e., the AM peak (08:00-09:00hrs) and the PM peak period (17:00hrs-18:00hrs) for assessing the proposed development's traffic impact.

#### 13.1.9.3.3 Assessment Scenarios

The following scenarios have been developed in assessing the proposed development's traffic impacts:

- **Do-Nothing Scenario (DN):** To assess the traffic impact of the development proposals on the local road network, it is first necessary to establish background traffic conditions without the proposed development, also referred to as the 'do-nothing' scenario. Such background traffic flows have been determined from the traffic survey detailed in Section 13.6.5 of this Report. The committed development traffic presented in Section 13.6.6 has been accounted for in the do-nothing scenario.
- **Do-Something Scenario (DS):** The with-development or 'do-something' scenario represents traffic conditions following completion of the proposed development, i.e. do-nothing plus additional traffic generated by the proposed development.
- **Future Scenario (DV)** – The future scenario represents traffic conditions following completion of the proposed residential development on the adjoining Major Town Centre zoned lands to the south of Site B.
- **Horizon Scenario (DBC)** - The horizon scenario represents traffic conditions following completion of the proposed BusConnects Scheme which incorporates the local road network.

#### 13.1.9.4 Traffic Modelling Software and Outputs

##### 13.1.9.4.1 Traffic Modelling Software

Different modelling software have been used to assess the junction performance during base year (2019) and future years. The industry standard Arcady traffic modelling software have been used for predicting the capacities, queues, and delays at the roundabout junctions, while the industry standard LinSig traffic modelling software has been used to assess the signalised junctions.

Arcady is a modelling software dedicated for analysing the capabilities of priority-controlled roundabout. Key functions of this software include capacity-based traffic assignment across the roads and lanes forecasting of performance parameters for the entire network, individual junctions, and individual lanes. The models analyse the junctions in relation to their geometry and traffic flows and calculate the Ration of Flow to Capacity (RFC).

LinSig is a modelling software dedicated for analysing isolated signal-controlled junctions and small junction networks. Key functions of this software include capacity-based traffic assignment across the roads and lanes forming the modelled network, traffic signal timing optimisation, and forecasting of performance parameters for the entire network, individual junctions, and individual lanes. The models analyse the junctions in relation to their geometry and traffic flows and calculate the Practical Reserve Capacity (PRC).

##### 13.1.9.4.2 Traffic Modelling Outputs

The following outputs were obtained from the Arcady models:



- **Queue Length:** The values are the total number of queueing vehicles on the arm in PCUs.
- **Junction Delay:** This is the total delay experienced by a quantity of traffic at a particular junction in a given time period.
- **Ration of Flow to Capacity (RFC):** The RFC provides a basis for judging the acceptability of junction designs and typically an RFC of less than 0.85 is considered to indicate satisfactory performance.

The following outputs were obtained from the LinSig models:

- **Degree of Saturation:** this output presents the ratio of demand flow to the maximum flow which can be passed through an junction from a particular approach i.e. number of vehicles that could cross the stop line in an hour on a particular lane. A lane with a degree of Saturation greater than 90% is considered to be approaching its theoretical capacity.
- **Maximum Queue Length:** queue lengths at junctions are measured in Passenger Car Units (PCU), which represents a standard vehicle length including a buffer length to the front and back. For the purposes of this assessment, a PCU length of 5.75 metres has been assumed.
- **Delay:** the delay is based on the estimated average delay per vehicle among all traffic passing through the junction. The delay per vehicle provides an insight into operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience, and safety. Average delays greater than 80 seconds per vehicle is considered generally considered to be excessive for signalised intersections.

### **13.1.9.5 Junction Analysis**

#### **13.1.9.5.1 Proposed Development Impact**

The results of the capacity analysis of the junctions during the operational phase of the Proposed Development are shown in Table 13-7 -

The LinSig junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of Blanchardstown Road S (R121), Off-slip, On-slip and Blanchardstown Road N (Bridge) (R121) in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The highest DoS value will increase from at 77.3% to 77.4% at the AM peak hour and from 82.6% to 82.9% during the PM peak hour.
- At the AM peak, the worst effected arm is the Blanchardstown Road S (R121) both with and without the proposed development. At the PM peak, the worst effected arm is Blanchardstown Road N (R121) both with and without the Proposed development.;
- The longest queue length will remain the same at the AM and PM peak with and without the proposed development.
- Delays will increase by 0.02 seconds on worst affected lane during AM peak; and increase by 0.03seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with a highest DoS value of 79.1% in AM Peak, and 84.4% PM Peak) and at a satisfactory level.

Table 13-14.

Table 13-7: Junction Analysis YoO - Junction 1

Junction	Year	Peak Hour	RFC		Max Queue (pcu)		Max Delay (s)	
			DN	DS	DN	DS	DN	DS
1 South Street, South Street Extension, East Street and Area 1	2023	AM	0.57 @ South St	0.56 @ South St	1.3 @ South St	1.3 @ South St	9.33 @ South St	9.09 @ South St
	2023	PM	0.69 @ East St	0.71 @ South St Ext.	2.2 @ South St Ext.	2.5 @ South St Ext.	13.47 @ South St	13.45 @ South St

The ARCADY junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of the South Street, South Street Extension, East Street and Area 1 in the YoO 2023, compared to “do nothing” case scenario in the same year. It should be noted that with the proposed development, it is proposed to improve the roundabout geometry which is also impacting upon the junction performance.

- The Ratio of Flow to Capacity (RFC) value will remain reduce from 0.57 to 0.56 at the AM peak hour and will increase from 0.69 to 0.71 in the PM peak hour with the Proposed development.
- At the AM peak, the worst effected arm is South Street both with and without the Proposed development. At the PM Peak, the worst effected arm is South Street Extension both with and without the Proposed development;
- The longest queue length will remain at 1.3pcus during the AM peak and will increase by 0.3pcus during the PM peak.
- Delays will decrease by 0.22 seconds on worst affected lane during AM peak; and decrease by 0.02seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with an RFC value of 0.44 in AM Peak, and 0.60 in PM Peak) and at a satisfactory level.

Table 13-8: Junction Analysis YoO - Junction 2

Junction	Year	Peak Hour	RFC		Max. Queue(pcu)		Max. Delay (s)	
			DN	DS	DN	DS	DN	DS
2 South Street Extension, Snugborough Road N (R843) and Snugborough Road S (R843)	2023	AM	0.57 @ Snugborough Rd S	0.57 @ Snugborough Rd S	1.3 @ Snugborough Rd S	1.3 @ Snugborough Rd S	6.47 @ Snugborough Rd S	6.50 @ Snugborough Rd S
	2023	PM	0.55 @ Snugbor	0.55 @ Snugbor	1.2 @ Snugbor	1.2 @ Snugbor	6.40 @ Snugbor	6.48 @ Snugbor

				ough Rd S	ough Rd S	ough Rd S	ough Rd S	ough Rd S	ough Rd S
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The ARCADY junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of the South Street Extension, Snugborough Road N (R843) and Snugborough Road S (R843) in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The Ratio of Flow to Capacity (RFC) value will remain the same at the AM peak hour and in the PM peak hour with the Proposed development.
- At the AM and PM peak, the worst effected arm Snugborough Road South both with and without the Proposed development;
- The longest queue length at the AM peak will remain at 1.3pcus and will remain at 1.2pcus during the PM peak.
- Delays will increase by 0.03 seconds on worst affected lane during AM peak; and increase by 0.08seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with an RFC value of 0.57 in AM Peak, and 0.55 in PM Peak) and at a satisfactory level.

Table 13-9: Junction Analysis YoO - Junction 3

Junction	Year	Peak Hour	RFC		Max. Queue (pcu)		Max. Delay (s)	
			DN	DS	DN	DS	DN	DS
3 East Street, L3020, Slip Road Extension and North Street	2023	AM	0.48 @ Slip Rd Ext.	0.55 @ Slip Rd Ext.	0.9 @ Slip Rd Ext.	1.2 @ Slip Rd Ext.	6.06 @ Slip Rd Ext.	7.00 @ Slip Rd Ext.
	2023	PM	0.64 @ East St	0.65 @ East St	1.8 @ East St	1.8 @ East St	6.87 @ North St	6.97 @ North St

The ARCADY junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of the East Street, L3020, Slip Road Extension and North Street in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The Ratio of Flow to Capacity (RFC) value will increase at the AM peak hour from 0.48 to 0.55. During PM peak hour, the RFC will increase from 0.64 to 0.65.
- At the AM peak, the worst effected arm Slip Road Extension both with and without the Proposed development. At the PM Peak, the worst effected arm is East Street both with and without the Proposed development.
- The longest queue length at the AM peak will increase by 0.3pcus and remain the same during the PM peak.



- Delays will increase by 0.54 seconds on worst affected lane during AM peak; and increase by 0.10seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with an RFC value of 0.55 in AM Peak, and 0.65 in PM Peak) and at a satisfactory level.

Table 13-10: Junction Analysis YoO - Junction 4

Junction		Year	Peak Hour	RFC		Max. Queue (pcu)		Max. Delay (s)	
				DN	DS	DN	DS	DN	DS
4	South Street, West Street and Blakestown Way Extension	2023	AM	0.51 @ Blakestown Way Ext.	0.51 @ Blakestown Way Ext.	1.1 @ Blakestown WayExt.	1.1 @ Blakestown WayExt.	3.43 @ Blakestown WayExt.	3.47 @ Blakestown WayExt.
		2023	PM	0.42 @ Blakestown Way Ext.	0.42 @ Blakestown Way Ext.	0.7 @ Blakestown WayExt.	0.8 @ Blakestown WayExt.	3.21 @ West St	3.25 @ West St

The ARCADY junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of the South Street, West Street and Blakestown Way Extension in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The Ratio of Flow to Capacity (RFC) value will remain the at the AM peak hour at 0.51. During PM peak hour, the RFC will remain at 0.42.
- At the AM and PM peak, the worst effected arm is Blakestown Way Extension both with and without the Proposed development.
- The longest queue length at the AM peak will remain at 1.1pcus and will increase by 0.1pcus during the PM peak.
- Delays will increase by 0.04 seconds on worst affected lane during AM peak; and increase by 0.04seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with an RFC value of 0.51 in AM Peak, and 0.42 in PM Peak) and at a satisfactory level.

Table 13-11 Junction Analysis YoO - Junction 5

Junction		Year	Peak Hour	RFC		Max. Queue (pcu)		Max. Delay (s)	
				DN	DS	DN	DS	DN	DS
5	West Street, North Street, Crowne Plaza and North Street Extension	2023	AM	0.32 @ North St Ext.	0.32 @ North St Ext.	0.5 @ North St Ext.	0.5 @ North St Ext.	4.48 @ Crowne Plaza	4.48 @ Crowne Plaza
		2023	PM	0.28 @ North St Ext.	0.28 @ North St Ext.	0.4 @ North St Ext.	0.4 @ North St Ext.	4.50 @ Crowne Plaza	4.51 @ Crowne Plaza



The ARCADY junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of the West Street, North Street, Crowne Plaza and North Street Extension in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The Ratio of Flow to Capacity (RFC) value at the AM peak hour will remain at to 0.32. During PM peak hour, the RFC will remain at 0.28.
- At the AM and PM peak, the worst effected arm is North Street Extension both with and without the Proposed development;
- The longest queue length at the AM peak will remain at 0.5pcus and at 0.4pcus during the PM peak.
- Delays at the AM peak will remain at 4.48seconds and increase by 0.1seconds during the PM peak.

The performance of the junction remains the same with and without the opening of the Proposed development and it operates within capacity (with an RFC value of 0.19 in AM Peak, and 0.26 in PM Peak) and at a satisfactory level.

Table 13-12: Junction Analysis YoO - Junction 6

Junction	Year	Peak Hour	RFC		Max. Queue (pcu)		Max. Delay (s)	
			DN	DS	DN	DS	DN	DS
6 Blakestown Way Extension, Blakestown Way, Blanchardstown Road N (R121) and Blanchardstown Road S (R121)	2023	AM	0.82 @ Blanch Rd S	0.85 @ Blanch Rd S	4.4 @ Blanch Rd S	5.4 @ Blanch Rd S	12.19 @ Blanch Rd S	14.71 @ Blakestown Way
	2023	PM	0.74 @ Blanch Rd S	0.74 @ Blanch Rd S	2.9 @ Blanch Rd S	2.9 @ Blanch Rd S	11.13 @ Blanch Rd S	11.26 @ Blanch Rd S

The ARCADY junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of Blakestown Way Extension, Blakestown Way, Blanchardstown Road N (R121) and Blanchardstown Road S (R121) in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The Ratio of Flow to Capacity (RFC) value will increase from 0.82 to 0.85 at the AM peak hour and from 0.68 to 0.69 During PM peak hour.
- At the AM peak, the worst effected arm is Blanchardstown Road N (R121) both with and without the Proposed development. At the PM peak, the worst effected arm is Blanchardstown Road S (R121) both with and without the Proposed development.;

- The longest queue length at the AM peak will increase by 0.9pcus and remain the same during the PM peak.
- Delays will increase by 2.52 seconds on worst affected lane during AM peak; and increase by 0.13seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with an RFC value of 0.85 in AM Peak, and 0.69 PM Peak) and at a satisfactory level.

Table 13-13 Junction Analysis YoO - Junction 7

Junction	Year	Peak Hour	Highest DoS (%)		Max. Queue (pcu)		Total Delay(s)	
			DN	DS	DN	DS	DN	DS
7 Blanchardstown Road S (R121), Off-slip, On-slip and Blanchardstown Road N (Bridge) (R121)	2023	AM	77.3 @ Blanch Rd S	77.4 @ Blanch Rd S & Blanch Rd N	16.1 @ Blanch Rd S	16.1 @ Blanch Rd S	36.1 For Whole Junction	36.3 For Whole Junction
	2023	PM	82.6 @ Blanch Rd N	82.9 @ On-Slip	17.9 @ Blanch Rd N	17.9 @ Blanch Rd N (Bridge)	44.4 For Whole Junction	44.7 For Whole Junction

The LinSig junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of Blanchardstown Road S (R121), Off-slip, On-slip and Blanchardstown Road N (Bridge) (R121) in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The highest DoS value will increase from at 77.3% to 77.4% at the AM peak hour and from 82.6% to 82.9% during the PM peak hour.
- At the AM peak, the worst effected arm is the Blanchardstown Road S (R121) both with and without the proposed development. At the PM peak, the worst effected arm is Blanchardstown Road N (R121) both with and without the Proposed development.;
- The longest queue length will remain the same at the AM and PM peak with and without the proposed development.
- Delays will increase by 0.02 seconds on worst affected lane during AM peak; and increase by 0.03seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity (with a highest DoS value of 79.1%in AM Peak, and 84.4% PM Peak) and at a satisfactory level.

Table 13-14 Junction Analysis YoO - Junction 8

Junction	Year	Peak Hour	Highest DoS (%)		Max. Queue (pcu)		Total Delay(s)	
			DN	DS	DN	DS	DN	DS

8	Blanchardstown Road S (Bridge) (R121), Slip Road Extension, Mulhuddart Road and Blanchardstown Road N (R121)	2023	AM	108.0 @ Slip Rd Ext.	108.0 @ Slip Rd Ext.	53.5 @ Blanch Rd S (Bridge)	54.0 @ Blanch Rd S (Bridge)	145.9 For Whole Junction	147.8 For Whole Junction
		2023	PM	96.5 @ Blanch Rd S	96.9 @ Slip Rd Ext.	26.1 @ Blanch Rd S	26.1 @ Blanch Rd S	61.9 For Whole Junction	63.1 For Whole Junction

The LinSig junction analyses indicate the following main impacts that the Proposed development will have on the performance of the roundabout junction of Blanchardstown Road S (Bridge) (R121), Slip Road Extension, Mulhuddart Road and Blanchardstown Road N (R121) in the YoO 2023, compared to “do nothing” case scenario in the same year:

- The highest DoS value will remain at 108.0% at the AM peak hour and increase from 96.5% to 96.9% during the PM peak hour.
- At the AM peak, the worst effected arm is the Slip Road Extension/Blanchardstown Road S (R121) both with and without the Proposed development. At the PM peak, the worst effected arm is the Blanchardstown Road S (R121) with and without the Proposed development.;
- The longest queue length at the AM peak will increase by 0.6pcus and will remain the same during the PM peak.
- Delays will increase by 1.9 seconds on worst affected lane during AM peak; and increase by 1.8seconds on worst affected lane during the PM peak.

While the performance of the junction does become lower, as would be expected with the opening of the Proposed development, it will still operate within capacity at the PM peak (with a highest DoS value of 96.9%). The junction will be over capacity at the AM peak, although this is the case with or without the proposed development.

### 13.1.9.6 Cumulative Development Impact

#### 13.1.9.6.1 Future Development

The Future Development is the proposed residential development on the adjoining Major Town Centre zoned lands to the south of Site B (DV Scenario). The future development has regard to the adjoining Major Town Centre zoned lands to the south of Site B and the future potential for residential development. As this development has not yet undergone the planning process, an indicative development size of 500 units has been used to estimate trip generation. This estimate has been guided by FCC as part of the pre-application discussions. The corresponding trip generation is shown in Table 13-15.

Table 13-15: Future Development Trip Generation

Time Period	Arrivals	Departures	Total
<b>AM Peak (08:00-09:00)</b>	18	53	71
<b>PM Peak (17:00-18:00)</b>	40	19	59

The trip assignment to the Future Development site is proposed as follows;



- 20% of trips will access/egress via a proposed access road within the Proposed development site in Area 1 and therefore have the same assignment as the Proposed development;
- 20% of trips will access/egress the site via the Snugborough Road N (R843) and travel through Junction 2;
- 30% of trips will access/egress the site via the Blanchardstown Road N (R121) and travel through Junctions 6, 7 and 8;
- 30% of trips will access/egress the site via the Ongar Distributor Road (R843) and not travel through the modelled junction network.

Table 13-16 and Table 13-17 show the junction analysis for the Future Year (DV) in comparison with the DN and DS scenario.

*Table 13-16 Junction Analysis Future Development (Development on the adjoining Major Town Centre zoned lands to the south of Site B Development) - Roundabout Junctions*

Junction	Year	Peak Hour	RFC			Max. Queue (pcu)			Max. Delay (s)		
			DN	DS	DV	DN	DS	DV	DN	DS	DV
1 South Street, South Street Extension, East Street and Area 1	Future	AM	0.57 @ South St	0.56 @ South St	0.57 @ South St	1.3 @ South St	1.3 @ South St	1.3 @ South St	9.33 @ South St	9.09 @ South St	9.26 @ South St
	Future	PM	0.69 @ East St	0.71 @ South St Ext.	0.68 @ South St Ext.	2.2 @ South St Ext.	2.5 @ South St Ext.	2.5 @ South St Ext.	13.47 @ South St	13.45 @ South St	13.68 @ South St
2 South Street Extension, Snugborough Road N (R843) and Snugborough Road S (R843)	Future	AM	0.57 @ Snugborough Rd S	0.57 @ Snugborough Rd S	0.58 @ Snugborough Rd S	1.3 @ Snugborough Rd S	1.3 @ Snugborough Rd S	1.4 @ Snugborough Rd S	6.47 @ Snugborough Rd S	6.50 @ Snugborough Rd S	6.61 @ Snugborough Rd S
	Future	PM	0.55 @ Snugborough Rd S	0.55 @ Snugborough Rd S	0.55 @ Snugborough Rd S	1.2 @ Snugborough Rd S	1.2 @ Snugborough Rd S	1.2 @ Snugborough Rd S	6.40 @ Snugborough Rd S	6.48 @ Snugborough Rd S	6.53 @ Snugborough Rd S
3 East Street, L3020, Slip Road Extension and North Street	Future	AM	0.48 @ Slip Rd Ext.	0.55 @ Slip Rd Ext.	0.55 @ Slip Rd Ext.	0.9 @ Slip Rd Ext.	1.2 @ Slip Rd Ext.	1.2 @ Slip Rd Ext.	6.06 @ Slip Rd Ext.	7.00 @ Slip Rd Ext.	7.02 @ Slip Rd Ext.
	Future	PM	0.64 @ East St	0.65 @ East St	0.56 @ East St	1.8 @ East St	1.8 @ East St	1.8 @ North St	6.87 @ North St	6.97 @ North St	6.99 @ North St
4 South Street, West Street and Blakestown Way Extension	Future	AM	0.51 @ Blakestown Way Ext.	0.51 @ Blakestown Way Ext.	0.51 @ Blakestown Way Ext.	1.1 @ Blakestown Way Ext.	1.1 @ Blakestown Way Ext.	1.1 @ Blakestown Way Ext.	3.43 @ Blakestown Way Ext.	3.47 @ Blakestown Way Ext.	3.50 @ Blakestown Way Ext.
	Future	PM	0.42 @ Blakestown Way Ext.	0.42 @ Blakestown Way Ext.	0.43 @ Blakestown Way Ext.	0.7 @ Blakestown Way Ext.	0.8 @ Blakestown Way Ext.	0.8 @ Blakestown Way Ext.	3.21 @ West St	3.25 @ West St	3.27 @ West St
5 West Street, North Street, Crowne Plaza and North	Future	AM	0.32 @ North St Ext.	0.32 @ North St Ext.	0.32 @ North St Ext.	0.5 @ North St Ext.	0.5 @ North St Ext.	0.5 @ North St Ext.	4.48 @ Crowne Plaza	4.48 @ Crowne Plaza	3.48 @ Crowne Plaza
	Future	PM	0.28 @	0.28 @	0.28 @	0.4 @	0.4 @	0.4 @	4.50 @	4.51 @	4.51 @



Junction	Year	Peak Hour	RFC			Max. Queue (pcu)			Max. Delay (s)		
			DN	DS	DV	DN	DS	DV	DN	DS	DV
Street Extension			North St Ext.	North St Ext.	North St Ext.	North St Ext.	North St Ext.	North St Ext.	Crowne Plaza	Crowne Plaza	Crowne Plaza
6	Blakestown Way Extension, Blakestown Way, Blanchardstown Road N (R121) and Blanchardstown Road S (R121)	Future AM	0.82 @ Blanch Rd S	0.85 @ Blanch Rd S	0.85 @ Blanch Rd S	4.4 @ Blanch Rd S	5.4 @ Blanch Rd S	5.7 @ Blanch Rd S	12.19 @ Blanch Rd S	14.71 @ Blakestown Way	15.23 @ Blakestown Way
		Future PM	0.74 @ Blanch Rd N	0.74 @ Blanch Rd N	0.75 @ Blanch Rd N	2. @ Blanch Rd S	2.9 @ Blanch Rd S	2.8 @ South St	11.13 @ Blanch Rd S	11.26 @ Blanch Rd S	11.45 @ Blanch Rd S

For the roundabout junctions modelled, the RFC, maximum queue and maximum delay increases with the addition of the Future Development. This is the expected result. The DV scenario has a higher trip generation than the DS scenario across the network, particularly for Junction 6. Therefore, the DV scenario has a bigger impact on traffic congestion across the junctions. All the roundabout junctions modelled operate within capacity and therefore the Future Development can be accommodated.

Table 13-17: Junction Analysis Future Development (Development on the adjoining Major Town Centre zoned lands to the south of Site B) - Signalised Junctions

Junction	Year	Peak Hour	Highest DoS (%)			Max. Queue (pcu)			Total Delay (s)		
			DN	DS	DV	DN	DS	DV	DN	DS	DV
7	Blanchardstown Road S (R121), Off-slip, On-slip and Blanchardstown Road N (Bridge) (R121)	2023 AM	77.3 @ Blanch Rd S	77.4 @ Blanch Rd S & Blanch Rd N	78.1 @ Blanch Rd S	16.1 @ Blanch Rd S	16.1 @ Blanch Rd S	16.4 @ Blanch Rd S	36.1 For Whole Junction	36.3 For Whole Junction	36.7 For Whole Junction
		2023 PM	82.6 @ Blanch Rd N	82.9 @ On-Slip	83.6 @ On-Slip	17.9 @ Blanch Rd N	17.9 @ Blanch Rd N (Bridge)	17.9 @ Blanch Rd N (Bridge)	44.4 For Whole Junction	44.7 For Whole Junction	45.2 For Whole Junction
8	Blanchardstown Road S (Bridge) (R121), Slip Road Extension, Mulhuddart Road and Blanchardstown Road N (R121)	2023 AM	108.0 @ Slip Rd Ext.	108.0 @ Slip Rd Ext.	108.1 @ Blanch Rd S	53.5 @ Blanch Rd S (Bridge)	54.0 @ Blanch Rd S (Bridge)	56.5 @ Blanch Rd S (Bridge)	145.9 For Whole Junction	147.8 For Whole Junction	154.0 For Whole Junction
		2023 PM	96.5 @ Blanch Rd S	96.9 @ Slip Rd Ext.	97.7 @ Blanch Rd N	26.1 @ Blanch Rd S	26.1 @ Blanch Rd S	28.9 @ Blanch Rd N	61.9 For Whole Junction	63.1 For Whole Junction	65.1 For Whole Junction



For the signalised junctions modelled, the DoS, maximum queue and total delay increases with the addition of the Future Development. This is the expected result. The DV scenario has a higher trip generation than the DS scenario across the network, particularly for Junctions 7 and Junction 8. Therefore, the DV scenario has a bigger impact on traffic congestion across the junctions. Both the signalised junctions modelled operate within capacity and therefore the Future Development can be accommodated.

#### 13.1.9.6.2 Horizon Development

The Horizon Development is the proposed BusConnects scheme (DBC Scenario). As this development has not yet undergone the planning process, an indicative development network has been established. This estimated network has been guided by BusConnects and FCC.

The proposed Horizon Year road network involves the development of a new signalised junction (Junction 9 in Figure 13-18) with the Blanchardstown Town Centre and Blanchardstown Road (R121) and the associated closure of a Left-In, Left-Out access from the Blanchardstown Town Centre to Blakestown Road Extension.

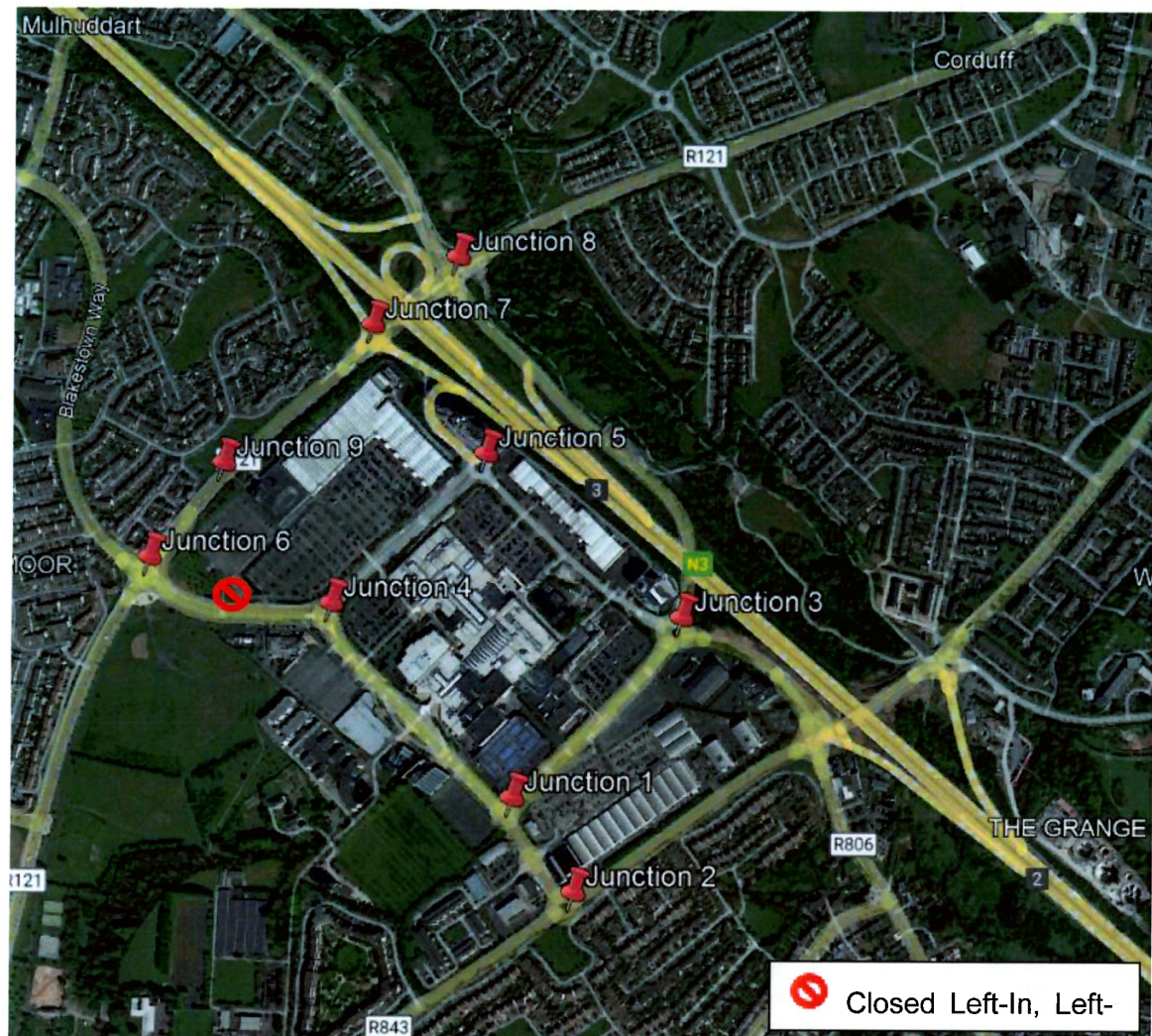


Figure 13-18: Horizon Junction Network Modelled

Taking a conservative approach, the traffic volumes from the DV scenario were redistributed across the network.

The proposed Horizon Development Road network also involves the signalisation of the following junctions:

- Junction 3 – East Street, L3020, Slip Road Extension and North Street
- Junction 4 – South Street, West Street and Blakestown Way Extension
- Junction 5 – West Street, North Street, Crowne Plaza and North Street Extension
- Junction 6 - Blakestown Way Extension, Blakestown Way, Blanchardstown Road N (R121) and Blanchardstown Road S (R121)

Table 13-18 and Table 13-19 show the junction analysis for the Future Year in (DV) in comparison with the DN and DBC scenario.

*Table 13-18: Junction Analysis Horizon Development (BusConnects Development) - Roundabout Junctions*

Junction	Year	Peak Hour	RFC			Max. Queue (pcu)			Max. Delay (s)		
			DN	DS	DBC	DN	DS	DBC	DN	DS	DBC
1 South Street, South Street Extension, East Street and Area 1	Horizon	AM	0.57 @ South St	0.56 @ South St	0.57 @ South St	1.3 @ South St	1.3 @ South St	1.3 @ South St	9.33 @ South St	9.09 @ South St	9.27 @ South St
	Horizon	PM	0.69 @ East St	0.71 @ South St Ext.	0.68 @ South St Ext.	2.2 @ South St Ext.	2.5 @ South St Ext.	2.3 @ South St Ext.	13.47 @ South St	13.45 @ South St	13.79 @ South St
2 South Street Extension, Snugborough Road N (R843) and Snugborough Road S (R843)	Horizon	AM	0.57 @ Snugborough Rd S	0.57 @ Snugborough Rd S	0.56 @ Snugborough Rd S	1.3 @ Snugborough Rd S	1.3 @ Snugborough Rd S	1.3 @ Snugborough Rd S	6.47 @ Snugborough Rd S	6.50 @ Snugborough Rd S	6.31 @ Snugborough Rd S
	Horizon	PM	0.55 @ Snugborough Rd S	0.55 @ Snugborough Rd S	0.53 @ Snugborough Rd S	1.2 @ Snugborough Rd S	1.2 @ Snugborough Rd S	1.1 @ Snugborough Rd S	6.40 @ Snugborough Rd S	6.48 @ Snugborough Rd S	6.23 @ Snugborough Rd S

For the roundabout junctions modelled, the RFC, maximum queue and maximum delay increases with the addition of the BusConnects network layout. This is the expected result. The DBC scenario has a higher trip generation than the DS scenario across the network. the DBC scenario has a bigger impact on traffic congestion across the junctions. All the roundabout junctions modelled operate within capacity and therefore the Horizon Development can be accommodated.

*Table 13-19: Junction Analysis Horizon Development (BusConnects Development) - Signalised Junctions*



Junction		Year	Peak Hour	Highest DoS (%)			Max. Queue(pcu)			Total Delay (s)		
				DN	DS	DBC	DN	DS	DBC	DN	DS	DBC
3	East Street, L3020, Slip Road Extension and North Street	Horizon	AM	N/A	N/A	66.4 @ East St	N/A	N/A	7.6 @ L3020	N/A	N/A	26.3 For Whole Junction
		Horizon	PM	N/A	N/A	86.3 @ East St	N/A	N/A	16.4 @ East St	N/A	N/A	43.3 For Whole Junction
4	South Street, West Street and Blakestown Way Extension	Horizon	AM	N/A	N/A	70.6 @ Blakestown Way Ext.	N/A	N/A	14.4 @ Blakestown Way Ext.	N/A	N/A	11.0 For Whole Junction
		Horizon	PM	N/A	N/A	75.2 @ West St	N/A	N/A	13.5 @ Blakestown Way Ext.	N/A	N/A	18.0 For Whole Junction
5	West Street, North Street, Crowne Plaza and North Street Extension	Horizon	AM	N/A	N/A	67.7 @ North St Ext	N/A	N/A	10.7 @ West St	N/A	N/A	15.9 For Whole Junction
		Horizon	PM	N/A	N/A	83.3 @ West St	N/A	N/A	15.6 @ West St	N/A	N/A	24.2 For Whole Junction
6	Blakestown Way Extension, Blakestown Way, Blanchardstown Road N (R121) and Blanchardstown Road S (R121)	Horizon	AM	N/A	N/A	79.0 @ Blanch Rd S	N/A	N/A	17.1 @ Blanch Rd S	N/A	N/A	42.4 For Whole Junction
		Horizon	PM	N/A	N/A	79.4 @ Blanch Rd S	N/A	N/A	12.2 @ Blanch Rd N	N/A	N/A	52.9 For Whole Junction
7	Blanchardstown Road S (R121) , Off-slip, On-slip and Blanchardstown Road N (Bridge) (R121)	Horizon	AM	77.3 @ Blanch Rd S	77.4 @ Blanch Rd S & Blanch Rd N	75.9 @ Blanch Rd N	16.1 @ Blanch Rd	16.1 @ Blanch Rd S	15.6 @ Blanch Rd S	36.1 For Whole Junction	36.3 For Whole Junction	34.9 For Whole Junction
		Horizon	PM	82.6 @ Blanch Rd N	82.9 @ On-Slip	81.1 @ On-Slip	17.9 @ Blanch Rd N	17.9 @ Blanch Rd N (Bridge)	17.0 @ Blanch Rd N (Bridge)	44.4 For Whole Junction	44.7 For Whole Junction	42.6 For Whole Junction
8	Blanchardstown Road S (Bridge) (R121), Slip Road Extension,	Horizon	AM	108.0 @ Slip Rd Ext.	108.0 @ Slip Rd Ext.	104.9 @ Blanch Rd S	53.5 @ Blanch Rd S (Bridge)	54.0 @ Blanch Rd S (Bridge)	46.3 @ Blanch Rd S (Bridge)	145.9 For Whole Junction	147.8 For Whole Junction	119.6 For Whole Junction



Junction	Year	Peak Hour	Highest DoS (%)			Max. Queue (pcu)			Total Delay (s)		
			DN	DS	DBC	DN	DS	DBC	DN	DS	DBC
Mulhuddart Road and Blanchardstown Road N (R121)	Horizon	PM	96.5 @ Blanch Rd S	96.9 @ Slip Rd Ext.	97.7 @ Blanch Rd N	94.8 @ Blanch Rd S	26.1 @ Blanch Rd S	28.9 @ Blanch Rd N	24.1 For Whole Junction	63.1 For Whole Junction	56.1 For Whole Junction
9 Blanchardstown Road S (R121), Blanchardstown Town Centre and Blanchardstown Road N (R121),	Horizon	AM	N/A	N/A	88.4 @ Blanch Rd N	N/A	N/A	33.7 @ Blanch Rd N	N/A	N/A	15.9 For Whole Junction
	Horizon	PM	N/A	N/A	94.6 @ Blanch Rd N	N/A	N/A	43.0 @ Blanch Rd N	N/A	N/A	26.3 For Whole Junction

For the signalised junctions modelled, the DoS, maximum queue and total delay increases with the addition of the BusConnects network layout. This is the expected result. The DBC scenario has a higher trip generation than the DS scenario across the network, particularly for Junction 6, Junction 7 and Junction 8. Therefore, the DBC scenario has a bigger impact on traffic congestion across the junctions. The four junctions that are signalised as part of this scenario and the new Junction 9 operate with minimal delays and traffic congestion. Therefore, all the signalised junctions modelled operate within capacity and the Horizon Development can be accommodated.

Reports containing the full traffic modelling results can be made available upon request.

### 13.1.9.7 Environmental Impact

The proposed development will not generate a significant volume of additional vehicular traffic during construction or operational phases. The level of traffic increase is not likely to have any adverse transport-related environmental effects in terms of noise, air quality, vibrations, etc. The environmental impact of the construction period will be short-term and not significant in nature.

### 13.1.9.8 Construction Stage Impact

The potential impacts resulting from construction works for the Proposed Development are outlined in Table 13-20, below. It should be noted that these impacts would be **short-term**, **negative**, and **not significant**, and are not expected to result in significant residual impact.

Table 13-20: Potential Impacts during Construction Stage.

Activities	Potential Impact	Significance of Effects	Duration of Effects
Transportation of site machinery and materials	<ul style="list-style-type: none"> <li>Delay and inconvenience to existing traffic on the road network.</li> <li>Noise/disturbance to other properties in the area.</li> <li>Dust raised by construction traffic.</li> <li>Dirt and mud dragged onto the road by construction traffic.</li> </ul>	<b>Moderate</b>	<b>Temporary</b>

### **13.1.10 Remedial and Mitigation Measures**

#### **13.1.10.1 Operational Stage**

##### **13.1.10.1.1 Vehicular Traffic**

Modifications to the road network in the vicinity of the site are proposed with the delivery of this development in order to ensure DMURS compliance, efficiently flow of traffic and safety of pedestrians and cyclists. These changes have been listed in section 13.1.7.5 of this Chapter.

Site vehicular accesses, pedestrians/cyclists facilities, and road network will be design in accordance with the standards established in the *Design Manual for Urban Roads and Streets (DMURS)*, with appropriate corner radii, lane with, and visibility splay to ensure safety of all users.

##### *13.1.10.1.1.1 Active Modes*

During the operational phase of the development the following measures will be put in place to improve pedestrian and cyclist facilities:

- Internal road markings through the carparks to highlight pedestrian routes.
- Dropped kerbs at building entrances to enable easier access.
- A total of 730 no. high quality cycle parking spaces will be provided at ground level.

#### **13.1.10.2 Construction Stage**

During the construction phase of the development, the following measures will be put in place to reduce the impact on the surrounding environment:

- The contractor will be required to provide wheel cleaning facilities, and regular cleaning site access will be carried out.
- Temporary car parking facilities for the construction workforce will be provided within the site and the surface of the car park will be prepared and finished to a standard sufficient to avoid mud spillage onto adjoining roads.
- Monitoring and control of construction traffic will be ongoing during construction works.

## **13.2 Material Assets – Waste and Utilities**

### **13.2.1 Defining Material Assets**

Material assets have been defined as 'Resources that are valued and that are intrinsic to specific places, they may be either human or natural origin and the value may arise for either economic or cultural reasons' (EPA 2002).

This definition was further expanded by the EPA in 2017 in '*Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports*' which states;

*'The meaning of this factor is less clear than others. In Directive 2011/92/EU it included architectural and archaeological heritage. Directive 2014/52/EU includes those heritage*

*aspects as components of cultural heritage. Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes roads infrastructure. Sealing of agricultural land and effects on mining or quarrying potential come under the factors of land and soils.'*

The scope and definition of Material Assets within the context of the EIA process has been defined by the EIA Directive as including Architectural and Archaeological Heritage or Cultural Heritage. These elements are assessed separately in Chapter 11 under Archaeology & Cultural Heritage.

This Chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the potential impacts of the Proposed Development on Material Assets or physical resources in the environment of human origin including built services and infrastructure comprising;

- Local Settlement,
- Built Services & Infrastructure (Electricity, Water, Gas, Telecommunication Supply, Surface/ Storm Water drainage and Foul Water (Sewerage)); and
- Waste Management.

Natural resources (water, land, biodiversity, air etc) are addressed in their respective chapters. A detailed assessment of traffic is also provided in Section 12a Traffic of this EIAR.

This Chapter was prepared by Enviroguide Senior Environmental Consultant Nikita Coulter. Nikita Coulter has a B.Sc. in Zoology (Hons) from University College Dublin, an M.Sc in Biodiversity and Conservation and a Postgraduate Diploma in Environmental Engineering from Trinity College Dublin, and a NEBOSH accredited International Diploma in Environmental Risk Management. Nikita has 8 years professional experience as an Environmental Compliance Specialist in the Irish waste management industry, dealing with municipal and hazardous waste management and energy recovery.

### **13.2.2 Study Methodology**

The methodology adopted for the assessment takes cognisance of the relevant guidelines the following:

- Environmental Protection Agency (EPA) (2017) *Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)* - DRAFT
- EPA (2003) *Advice Notes on Current Practice in the preparation of Environmental Impact Statements*.
- EPA (2002) *Guidelines on the information to be contained in Environmental Impact Statements*.

The scope of work undertaken for the assessment included a desk-based study of material assets, namely built services, utilities and infrastructure associated with the existing Site and

the Proposed Development. All phases of the Proposed Development were considered in the assessment of potential impacts on material assets.

Information on built assets in the vicinity of the Site of the Proposed Development was assembled by the following means:

A desktop review of:

- ESB Networks Utility Maps, Irish Water Utility Plans, Gas Networks Ireland Service plans and EIR E-Map), Commission for Communications Regulation Mast Maps, and the National Broadband Plan Map,
- The NZEB & Part L Planning Compliance Report for the Mechanical and Electrical Services Installations at Blanchardstown PRS – Proposed Site B & C Mixed Use Development (Axiseng, 2022),
- The Telecommunications Report (Independent Site Management Lit, 2022),
- Irish Water correspondence via the Infrastructure Design Report (DBFL Consulting Engineers, 2022),
- The Construction and Demolition Waste Management Plan and the Operational Waste Management Plan (Enviroguide Consulting, 2022), and
- The Construction Environmental Management Plan (DBFL Consulting Engineers, 2022).

Assessment of the likely impact of features of the Proposed Development, including surface water runoff, foul water discharge and water usage was carried out in accordance with the following guidelines:

- IS EN752, "Drain and Sewer Systems Outside Buildings"
- Greater Dublin Strategic Drainage Study (GDSDS)

### **13.2.2.1 Prediction and Assessment of impacts**

Impacts were predicted and assess based on EPA guidance and by using the definitions detailed in the tables below. Impact will vary from negative to neutral or positive, and also will vary in significance on the receiving environment. The terminology and methodology used for assessing the impact significance and corresponding effects throughout this chapter are described in Table 13-21, 13-22 & 13-23 below:

*Table 13-21: Terminology used to assess the quality potential impacts & effects*

Quality of Effects / Impacts	Definition
<b>Negative</b>	A change which reduces the quality of the environment.



<b>Neutral</b>	No effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error.
<b>Positive</b>	A change that improves the quality of the environment.

Source: EPA, 2017

*Table 13-22: Terminology used to assess the significance of potential impacts & effects*

Significance of Effects / Impacts	Definition
<b>Imperceptible</b>	An effect capable of measurement but without significant consequences.
<b>Not Significant</b>	An effect which causes noticeable changes in the character of the environment but without significant consequences.
<b>Slight</b>	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Moderate</b>	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
<b>Significant</b>	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
<b>Very Significant</b>	An effect which, by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment.
<b>Profound</b>	An effect which obliterates sensitive characteristics.

Source: EPA, 2017

*Table 13-23: Terminology used to assess the duration of potential impacts/effects*

Duration of Effects / Impacts	Definition
<b>Momentary</b>	Effects lasting from seconds to minutes
<b>Brief</b>	Effects lasting less than a day
<b>Temporary</b>	Effects lasting one year or less
<b>Short-term</b>	Effects lasting one to seven years
<b>Medium-term</b>	Effects lasting seven to fifteen years
<b>Long-term</b>	Effects lasting fifteen to sixty years
<b>Permanent</b>	Effects lasting over sixty years
<b>Reversible</b>	Effects that can be undone, for example through remediation or restoration

Source: EPA, 2017

Where significant potential impacts were identified, mitigation measures are proposed to minimise impacts.

### **13.2.3 The Existing and Receiving Environment (Baseline Situation)**

#### **13.2.3.1 Baseline Environment**

The Proposed Development comprises two (2 No.) sites which are separated by the Blanchardstown Centre Ring Road.

The southern portion of the Proposed Development Site, Site B, comprises an overflow carpark for the Blanchardstown Town Centre, and is referred to as the Library Carpark, and is fringed to the north, south and east by a sparsely populated treeline and is bound to the north by the Blanchardstown Centre Ring Road, to the south by Major Town Centre zoned lands in use by a Sports & Leisure Club, to the west by Blanchardstown Library and to the east by AIB Blanchardstown.

The northern portion of the Proposed Development Site comprises the existing multi storey car park, located in the Blue Car Park of the Blanchardstown Town Centre and is fringed to the south and east by a sparsely populated treeline. The northern portion of the Proposed Development Site is bound to the north and west by Blanchardstown Town Centre and to the south and east by the Blanchardstown Centre Ring Road.

Blanchardstown Town Centre is designated as a Metropolitan Consolidation Town under the Eastern & Midland Regional Assembly Regional Spatial and Economic Strategy (RSES) 2019 and a Level 2 'Major Town Centre' in the Retail Strategy for the Greater Dublin Area. The Town Centre is now one of the key retail locations within Fingal and the Greater Dublin Area within excess of 170,000 sq.m of retail floor space.

Blanchardstown Town Centre and adjoining lands play a key role in terms of retail and employment, and include a range of existing uses including retail, commercial, residential, hotel, leisure / sports, educational and healthcare, and it adjoins the Millennium Park. The Blanchardstown Town Centre is also centrally located to nearby regional and local employment destinations, facilities, and amenities, including Blanchardstown Village, the National Aquatic Centre, Connolly Memorial Hospital, TUD Blanchardstown, and a number of business parks and industrial estates.

The construction of Blanchardstown Town Centre commenced in 1994 and the first stage was completed in October 1996, followed by a multiplex cinema, restaurants and further retail units which opened in early 1997. The centre has an extensive planning history, dating back to the first available record of a planning application on the site in 1977.

Figure 13-19 and Figure 13-20 detail the Site Location and the Site Layout of the Site of the Proposed Development respectively.

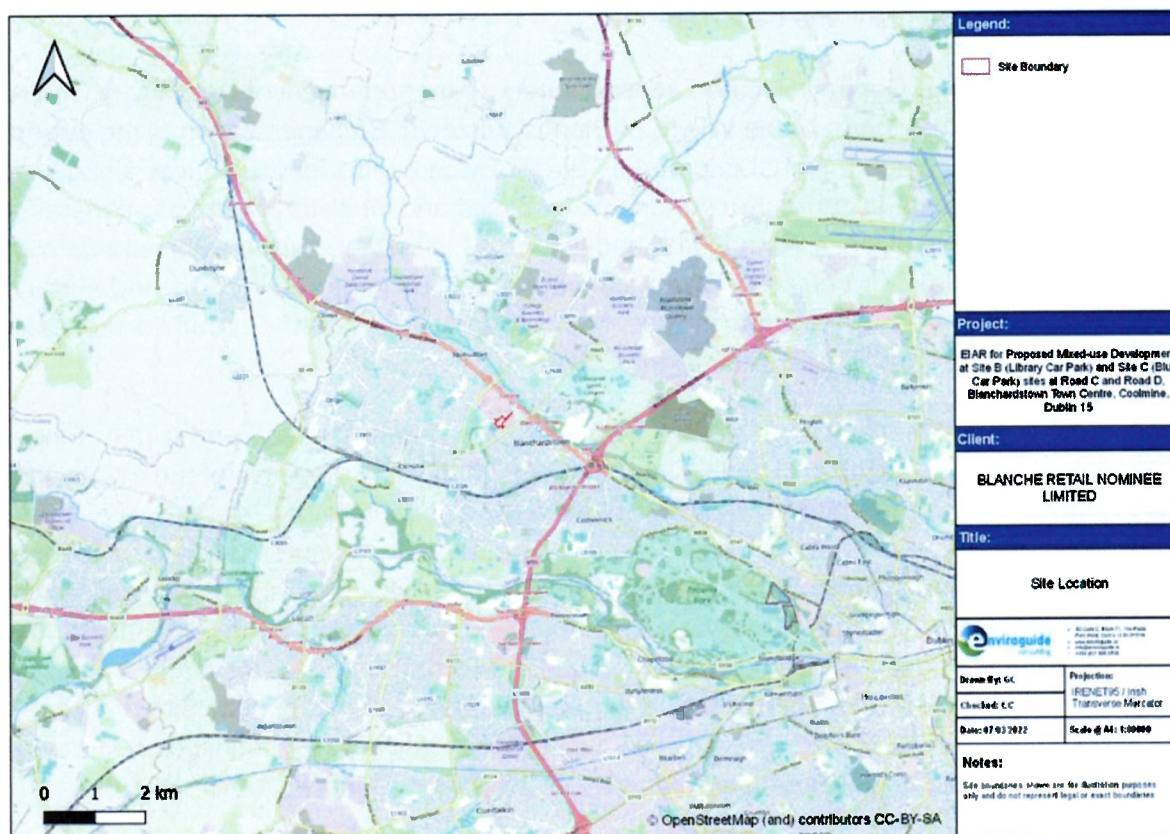


Figure 13-19: Site Location



Figure 13-20: Existing Site Layout



### 13.2.3.1.1 Local Settlement and Land-Use

Blanchardstown Town Centre is located approximately 10km north-west of Dublin City Centre and approximately 1km north of the village of Blanchardstown. Blanchardstown is the largest urban area in the County of Fingal and serves as a service centre for the county along with Swords. The subject site is currently a surface car park site and multistorey carpark, separated by the Blanchardstown Centre Ring Road, and is located within the existing Blanchardstown Town Centre complex. The centre is currently surrounded by large retail parks and surface car-parking. Townlands in the area include Mulhuddart to the north, Corduff to the east, Coolmine to the west and Castleknock to the south.

Blanchardstown Town Centre is zoned 'MC – Major Town Centre' under the Fingal Development Plan 2017-2023 (Fingal County Council, 2016). The objective of the MC zoning is to '*Protect, provide for and/or improve major town centre facilities*' through the future development of these centres by densification of appropriate commercial and residential developments ensuring a mix of commercial, recreational, civic, cultural, leisure, residential uses, and urban streets, while delivering a quality urban environment which will enhance the quality of life of resident, visitor and workers alike, and ensuring priority for public transport, pedestrians and cyclists. The lands surrounding the Proposed Development Site are zoned 'MC' Major Town Centre, 'RS' Residential, 'OS' Open Space and 'CI' Community Infrastructure under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).

Blanchardstown Town Centre has evolved to become the commercial, civic, recreational and transportation hub of the area. It provides for a significant opportunity for consolidation and densification and delivery of residential development through the redevelopment of the existing surface car parks, and this proposed development is the first step in the process by the new owners.

### 13.2.3.2 Land-use History

The Proposed Development Site was historically used for agricultural purposes. The Blanchardstown Town Centre was built on a green field site.

Historical mapping and aerial photography available from the Ordnance Survey of Ireland website (OSI, 2021) were reviewed and key observations on-site and off-site are summarised in Table 13-24.

Table 13-24: Historical Land Use

Date	Information Source	Site Description
1837-1842	OSI map 6inch	<b>On-site:</b> The Proposed Development Site is shown as predominantly agricultural fields and a dwelling. <b>Off-site:</b> The Proposed Development Site is shown to be bound by open fields, Coolmine House and Gardens, the Old Navan Road and the Tolka River.
1888-1913	OSI map 25inch	<b>On-site:</b> No significant changes. <b>Off-site:</b> No significant changes.
1830-1930	OSI Cassini map 6inch	<b>On-site:</b> No significant changes. <b>Off-site:</b> No significant changes.



Date	Information Source	Site Description
1995	OSI Aerial photography	<p><b>On-site:</b> Development of Blanchardstown Town Centre is underway on the subject site.</p> <p><b>Off-site:</b> There are still fields surrounding the site itself, and housing estates have been developed to the north, east, south and west. The Navan Road road has been developed into the N3, a dual carriageway with roundabouts and slip-roads. Coolmine House has been demolished and Coolmine Community School and Coolmine Sports and Leisure Centre are in place on the land.</p>
2000	OSI Aerial photography	<p><b>On-site:</b> Blanchardstown Town Centre is complete and open for business. The subject site is a surface level carpark. Further development has taken place in the adjoining fields.</p> <p><b>Off-site:</b> Further development has taken place in the adjoining fields northwest and southeast of the site. The housing developments north, west and south of the Blanchardstown Town Centre have increased in size.</p>
2005	OSI Aerial photography	<p><b>On-site:</b> The subject site has been developed into a multistorey car park and a retail unit divided by a road.</p> <p><b>Off-site:</b> More development has been constructed in the surrounding lands. Another housing development has been constructed northeast of the site. The majority of the land north of the site remains as greenfield agricultural pastureland.</p>
2005-2013	OSI Aerial Photography	<p><b>On-site:</b> No significant changes.</p> <p><b>Off-site:</b> An additional carpark has been built to the northwest of the Town Centre, a hotel has been built on the northern side of the Town Centre, Blanchardstown Court House and Fingal Co Co Offices have been developed to the South West of the Town Centre.</p>
2021	Google Maps Photography ©2021 Infoterra Ltd & Bluesky, Landsat/Copernicus, Maxar Technologies	<p><b>On-site:</b> No significant changes</p> <p><b>Off-site:</b> No significant changes.</p>

### 13.2.3.3 Electricity Supply

#### 13.2.3.3.1 Local Supply & Grid Connection

Electricity to local businesses in the area is mainly supplied by underground cables from the nearby existing Clonee (or Corduff) 220kV Station. There are a number of overhead lines in the immediate vicinity north of the Site of the Proposed Development however there are no overhead lines crossing the Site.

Eirgrid is responsible for planning and development of the electricity transmission system and operate the grid in North Dublin. The East Meath to North Dublin Network reinforcement Project (CP1021) commenced in Autumn 2020 and reflects the increased demand for power in the region from large energy users located at or near the existing substations at Clonee,

Corduff, Finglas and Belcamp<sup>6</sup>. In addition, demand from new housing, commercial and SME developments has consistently increased within the region. There is a limited number of existing electricity transmission circuits, (overhead lines and underground cables) to supply these areas, and power flows on these existing electricity circuits are expected to reach capacity as the demand in the region continues to increase and as Ireland transitions to a more sustainable electricity grid supported by 70% electricity consumption via renewable energy sources by 2030.

#### **13.2.3.3.2 Onsite Supply and Consumption**

Existing electricity supply is in place at the site of the Proposed Development. The Proposed Development includes the construction of two (2No.) ESB sub-stations and switchrooms to service the Development.

#### **13.2.3.3.3 Gas supply**

Gas Networks Ireland builds, develops and operates Ireland's gas infrastructure, maintaining over 14,521 km of gas pipelines and two sub-sea interconnectors. The distribution infrastructure is typically operated at 4 bar g and less than 100 mbar g for inner city networks. Gas Networks Ireland is responsible for connecting all new gas customers to the network, and for work on service pipes and meters at customers' premises, on behalf of all gas suppliers in Ireland.

#### **13.2.3.3.4 Information and Communications Technology (ICT)**

The Department of the Environment, Climate and Communications have developed an interactive map which details the progress of the rollout of the National Broadband Plan. The High-Speed Broadband map identifies locations and premises as amber or blue and the map is updated on a quarterly basis. Amber areas depict target areas for the State intervention of the National Broadband Plan. Blue areas indicated that commercial operators have instated or are in the process of delivering high speed broadband services. The Site of the Proposed Development is located within a blue area and high-speed broadband is available.

In terms of mobile telecommunication for transmission and reception, the closest mobile/ICT communications masts (3 and Meteor; Vodafone) are located at the Town Centre c. 150m north and northwest of the Site of the Proposed Development.

As the Blanchardstown Town Centre is a well serviced and fully operational, IT infrastructure for operations and administration is established and in place. The Proposed Development will seek to extend and connect into this infrastructure.

#### **13.2.3.3.5 Water Supply and Demand**

The Proposed Development Site is located within an area serviced by mains water supply and there are no groundwater sources located at the Proposed Development Site or identified on the GSI database (GSI, 2021). The closest public water supply is the Dunboyne PWS which

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<sup>6</sup> [https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid-CP1\\_021-East-Meath-North-Project-Brochure.pdf](https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid-CP1_021-East-Meath-North-Project-Brochure.pdf) (accessed 24/01/2022)

supplies for Dunboyne, Clonee and their surrounds. The Dunboyne PWS is located approximately 6.45km northwest of the Proposed Development Site. Existing public water supply infrastructure (300mm diameter ductile iron watermain) is located to the north-east of Site B and to the south-west and south-east of Site C i.e., adjacent to the existing access road within Blanchardstown Town Centre.

Fire water supply at the Proposed Development Site is provided via fire hydrants. The proposed water main layout is arranged such that all buildings are a maximum of 46.0m from a hydrant in accordance with the Department of the Environment's Building Regulations "Technical Guidance Document Part B Fire Safety". All new fire hydrants will comply with the requirements of BS 750:2012 and will be installed in accordance with Irish Water's Code of Practice and Standard Details.

#### **13.2.3.4 Local Hydrology and Hydrogeology**

The closest surface water feature is named locally and recorded on the EPA database (EPA, 2022) as the Tolka River (IE\_EA\_09T010800) which is located approximately 0.45km northeast of the Proposed Development Site and flows eastwards, discharging into Dublin Bay, approximately 17.9km southeast of the Proposed Development Site.

The Proposed Development Site is mapped by the EPA (EPA, 2019) as within the WFD Catchment of the Liffey and Dublin Bay, Hydrometric Area (HA09), the Tolka Sub-catchment (SC\_09\_4) and the Tolka WFD River Sub Basin (IE\_SE\_09T011000).

The River Waterbody WFD quality status for the Tolka River has been classified by the EPA (EPA, 2022) as "Poor" for the period of 2013-2018 and is identified as being "At Risk" of not achieving the Water Framework Objectives for the WFD Cycle 2 and Cycle 3 (EPA, 2022).

#### **13.2.3.5 Surface Water Drainage**

Existing private (owned by the applicant) surface water drainage infrastructure (525mm diameter) is located to the north-east of Site B and to the south-west and south-east of Site C, running along a grass verge adjacent to the existing access road within Blanchardstown Town Centre. This 525mm diameter surface water drain outfalls to the north-east along access roads within Blanchardstown Town Centre.

#### **13.2.3.6 Foul Water Management**

Existing 225mm diameter private (owned by the applicant) foul drainage infrastructure is located to the north-east of Site B and to the south-west and south-east of Site C, running along a grass verge adjacent to the existing access road within Blanchardstown Town Centre. This drainage line outfalls to an existing private (also owned by the applicant) 450mm diameter foul sewer, which in turn discharges to Irish Water's 9C trunk sewer.

The existing 225mm diameter private foul drainage network in the immediate vicinity of the site is at capacity, therefore upgrades to the private foul drainage network are required in order to facilitate the Proposed Development.

### **13.2.3.7 Waste Management**

The subject site is currently a multi storey car park and a surface level carpark of a Major Town Centre. Waste management strategies are in place for the Blanchardstown Town Centre and waste types generated at the Town Centre reflect typical municipal wastes. Contracts are currently in place for premises within the Town Centre that are operational, with experienced and appropriately authorised waste management service providers who have the skills and expertise to manage the various waste types generated. All waste contractors are appropriately permitted to collect and transport waste under the National Waste Collection Permit Office (NWCPO) and all wastes are transported to appropriately licenced or permitted waste recovery/disposal facilities.

### **13.2.4 Characteristics of the Proposed Development**

The applicant, Blanche Retail Nominee Limited, seeks to apply for planning permission for a Proposed Mixed-Use Development on two sites, Site B (the Library Carpark Site) and Site C (the Blue Carpark Site) separated by a roadway at Blanchardstown Town Centre, Coolmine, Dublin 15. The Proposed Development includes residential accommodation, resident amenity floorspace, commercial units, a community facility and all ancillary services as summarised below:

- 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, in 6 no. buildings (Blocks A, B, C, D, J and K), ranging from 5 no. to 13 no. storeys in height. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).
- The Proposed Development includes for an extension of the existing multi storey car park (the Blue Carpark) from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the Blocks A, B, C, D, J and K.
- The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park.
- The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks.
- Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.
- The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the application site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the site boundary.
- Provision of telecommunications infrastructure at roof level comprising of 6 no. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3 no.



steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

- The Proposed Development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2 no. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.

#### **13.2.4.1 Construction Phase**

The duration of the Construction Phase of the Proposed Development will be approximately 24 to 30 months. The Construction Phase will include all necessary site clearance and preparation work, site development and construction. The Construction Phase will involve the excavation of soil and bedrock for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works.

#### **13.2.4.2 Operational Phase**

The Operational Phase of the Proposed Development will consist of the normal day-to-day operations necessary for the management of multistorey car parks, retail space, such as offices, a gym or food outlets, and the ongoing maintenance of residential units and public and communal amenity space.

### **13.2.5 Potential Impact of the Proposed Development**

This section assesses the impact of the Proposed Development on the Material Assets of the area during the Construction and Operational Phases.

#### **13.2.5.1 Local Settlement**

It is noted that specific issues relating to Population and Human Health associated with the Proposed Development are set out in Chapter 4 of this EIAR, while specific issues relating to traffic are dealt with in Chapter 12a Material Assets - Traffic.

##### **13.2.5.1.1 Construction Phase**

Residents in nearby developments and local businesses may experience a *temporary, negative* nuisance disturbance during the Construction Phase of the Proposed Development due to noise, additional traffic, and any temporary disruption to services and utilities. The construction phase will create construction employment in the area which will have a *positive* effect on local businesses who might benefit from increased custom to their services. The increased employment will also enhance the local economy within the area which will have a *short-term, positive* impact on local settlement as a result.

##### **13.2.5.1.1.1 Air Quality**

It is noted that specific issues relating to Air Quality associated with the Proposed Development are set out in Chapter 8 of this EIAR. The greatest potential impact on air quality during the Construction Phase is from dust emissions and the potential for nuisance dust.

Appropriate mitigation measures, including a dust minimisation plan and dust monitoring will be employed to further reduce the risk of such impacts occurring.

According to the Traffic and Transport Assessment for the Proposed Development (*Clifton Scannell Emerson Associates, 2022*), traffic-related impacts during the Construction Phase are expected to be short-term, negative, and insignificant.

#### 13.2.5.1.1.2 Visual Impact

It is noted that specific issues relating to Visual Impact associated with the Proposed Development are set out in Chapter 11 of this EIAR. During the Construction Phase of the Proposed Development there will be intense construction-related activity within and around the Site of the Proposed Development, including on the approach roads. Construction Phase impacts on the townscape character will be negative and short-term, and the context of this construction activity is within a suburban, retail, and commercial setting where the construction of multi-storey buildings has been long established.

#### 13.2.5.1.1.3 Noise and Vibration Impact

It is noted that specific issues relating to Noise and Vibration associated with the Proposed Development are set out in Chapter 9 of this EIAR. The assessment has concluded that additional noise associated with the Construction Phase will not create any significant negative impacts beyond the Site boundary.

#### 13.2.5.1.2 Operational Phase

The lands surrounding the Proposed Development Site are zoned 'MC' Major Town Centre, 'RS' Residential, 'OS' Open Space, 'CI' Community Infrastructure and 'HT' High Technology under the Fingal County Development Plan 2017-2023 (Fingal County Council, 2016).

The Site of the Proposed Development is within Ireland's fastest growing local authority area. The Proposed Development aims to provide an additional 352 residential dwellings in a densely populated area. It is likely that the Proposed Development will impact on residential property prices within the area due to the established nature of the subject site environs and the lack of available residential dwellings in the vicinity of the Site.

The Department of Housing, Local Government and Heritage's (DoHLGH) Plan '*Housing for All – A New Housing Plan for Ireland*' (2021) states that Ireland needs an average of 33,000 homes to be constructed per annum until 2030 to meet targets set out for additional households. The Proposed Development seeks to achieve the objectives of the 'Housing for All' plan by:

- Supporting homeownership and increasing affordability,
- Eradicating homelessness, increasing social housing delivery, and supporting social inclusion,
- Increasing new housing supply; and
- Addressing vacancy and efficient use of existing stock.

Hence, it is likely that there will be a *positive, moderate, medium-term* impact on property values as a result of the Proposed Development.

Once operational, the retail units in the Proposed Development, along with the maintenance and management of the Proposed Development, will have the potential to create employment within the area which is in line with the land-use zoning objectives for the area. The Proposed Development will also provide additional housing options for those already employed in the area, which will reduce commute times. There will be a *positive, major, permanent* impact on local settlement as a result of the Proposed Development.

There are no protected views, rights of way or planned pieces of strategic infrastructure or any important tourist sites effected in any way by the Proposed Development. Overall, it is not considered there will be any significant long-term impacts on the built services and infrastructure as a result of the Proposed Development.

### **13.2.5.2 Electricity Supply**

#### **13.2.5.2.1 Construction Phase**

The electricity requirement for the Construction Phase will initially be powered by onsite mobile diesel generators until a connection to the local electrical supply is established. The Proposed Development will include new connections to the existing electricity supply in the area. There may be some disturbances to the local electricity supply during the Construction Phase however due to the temporary nature of the works, the impact is considered to be *neutral* in the absence of mitigation.

#### **13.2.5.2.2 Operational Phase**

Electricity will be required to provide public lighting, domestic lighting, power supply and heating for each individual unit for the Proposed Development. The impact of the Operational Phase of the Proposed Development on the electricity supply network is likely to be to increase demand to the existing supply. The Proposed Development includes 2 no. ESB substation buildings to service the site.

The potential impact from the Operational Phase on the electricity supply network is likely to be long term and moderate.

The Applicant, Blanche Retail Nominee Limited, are committed to incorporating energy conservation measures as fundamental elements of their new apartment development. These measures will be taken with regard to all aspects of the Proposed Development, including the apartments, resident amenity spaces, commercial units and the basement car park elements.

The strategy aims to:

- Reduce energy demands by using high performance construction materials which will maximise air tightness in the buildings.
- Produce energy savings through the introduction of energy efficient lighting, lighting controls, heat-recovery ventilation, as well as high efficiency heating and hot water generation.

- Introduce renewable energy systems to the project, such as Exhaust Air Heat Pumps, Air Source Heat Pumps for hot water generation and Photovoltaic (PV) Panels.

Additionally, the proposed commercial units and resident amenity spaces will all be constructed to the same high standard as the apartments. In addition to the measures described above, there will also be a provision of EV chargers throughout the car park to exceed the council minimum requirement *Energy Statement (NZE & Part L Planning Compliance)*, Axiseng Consulting Engineers, 2022).

### **13.2.5.3 Gas Supply**

#### **13.2.5.3.1 Construction Phase**

No impacts on the local and national gas supply are foreseen during the Construction Phase of the Proposed Development as there are no gas requirements for this phase and there will be no connections made to the natural gas network as part of the Proposed Development.

#### **13.2.5.3.2 Operational Phase**

The Proposed Development will not be connected to the natural gas network. Space heating will be provided by electric radiators and air to water heat pumps will be used for generating hot water. Hence there will be no impact to the local and national gas supply from the Operational Phase of the Proposed Development.

### **13.2.5.4 Information and Communications Technology (ICT)**

#### **13.2.5.4.1 Construction Phase**

A specific Telecommunications Report was compiled by Independent Site Management (2022) regarding the telecommunication channels (such as microwave links) at the Site of the Proposed Development to satisfy the criteria of Section 3.2 of the Building Height Guidelines (2018). The Telecommunications Report reviewed the Proposed Development together with the proposed allowances to retain relevant telecommunication channels in the context of the immediate surrounding registered and documented telecommunication sites. The report concluded that the Proposed Development and allows for the retention of important telecommunication channels and satisfies the criteria of Section 3.2 of the Building Height Guidelines (2018).

Telecommunications infrastructure will be installed at roof level comprising of 6 no. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3 no. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

Connections will be required to the existing ICT network during the Construction Phase of the Proposed Development which, if not conducted in accordance with best practice, has the potential to impact on local telecoms & ICT connectivity. However, in the absence of mitigation



due to the temporary and phased nature of the Construction Phase the potential impact of the Construction Phase on the local telecoms network is considered *temporary* and *neutral*.

#### **13.2.5.4.2 Operational Phase**

The impact of the Operational Phase of the Proposed Development on the telecoms network is likely to be a marginal increase in demand. The potential impact from the Operational Phase on the telecoms network is likely to be *long term* and *low*.

#### **13.2.5.5 Water Supply and Demand**

Chapter 7 (Hydrology) of this EIAR and the Infrastructure Design Report (*DBFL, 2022*) which has been prepared for the Proposed Development contain further detail and specific information pertaining to the potential impacts of the Proposed Development on water supply and demand.

##### **13.2.5.5.1 Construction Phase**

The Proposed Development will include new connections to the existing Irish Water potable water supply infrastructure, a 300mm diameter ductile iron watermain. The existing watermain is located to the north-east of Site B and to the south-west and south-east of Site C, adjacent to the existing access road within Blanchardstown Town Centre. There may be some disturbances to the local water supply during the Construction Phase, however due to the nature of the works, the impact is considered to be *negative, non-significant* and *temporary*.

##### **13.2.5.5.2 Operational Phase**

Water supply during the Operational Phase will be operated in accordance with the appropriate statutory consents. A pre-connection enquiry was submitted to Irish Water in May 2021 and a confirmation of feasibility letter was received from Irish Water in October 2021 (Reference No. CDS21003456). Irish Water have advised that provision of a water connection is "feasible without infrastructure upgrade by Irish Water".

The total operational peak hour water demand of 11.3 l/sec has been calculated by DBFL (*Infrastructure Design Report, 2022*) for the Proposed Development, in accordance with the guidelines outlined in Irish Water's Code of Practice for Water Infrastructure.

#### **13.2.5.6 Local Hydrology and Hydrogeology**

Chapter 7 (Hydrology) of this EIAR, the Infrastructure Design Report (*DBFL, 2022*) and the Construction Environmental Management Plan (*DBFL, 2022*) that have been prepared for the Proposed Development contain further detail and specific information pertaining to the potential impacts of the Proposed Development on local hydrology and hydrogeology.

##### **13.2.5.6.1 Construction Phase**

The following measures are to be implemented during the Construction Phase in order to mitigate risks to the water and hydrogeological environment.

## Accidental Spills and Leaks

- All oils, fuels and other chemicals will be stored in a secure bunded hardstand area (within the construction compound)
- Refuelling and servicing of construction machinery will take place in a designated hardstand area (within the construction compound) which is also remote from any surface water inlets (when not possible carry out such activities off site)
- A response procedure will be put in place to deal with any accidental pollution events, spillage kits will be available and construction staff will be inducted with regard to the emergency procedures / use of spill kits

## Concrete

- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site
- Pumped concrete will be monitored to ensure there is no accidental discharge
- Mixer washings are not to be discharged into surface water drains

## Wheel Wash Areas

- Debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility

### 13.2.5.6.2 Operational Phase

There will be no risk to local hydrology and hydrogeology with the Operational Phase of the Proposed Development. It is considered that the design of the Proposed Development including the implementation of the surface water management and SuDS strategy, along with the foul water management strategy are in line with the objectives of the Water Framework Directive (2000/60/EC).

### 13.2.5.7 Surface Water Drainage

Chapter 7 (Hydrology) of this EIAR and the Infrastructure Design Report (*DBFL, 2022*) which has been prepared for the Proposed Development contain further detail and specific information pertaining to the potential impacts of the Proposed Development on surface water drainage.

#### 13.2.5.7.1 Construction Phase

It is anticipated that groundwater will be encountered during trench excavations for the construction of foundations and utility infrastructure (i.e., attenuation tanks), and that groundwater dewatering will be required at the Site of the Proposed Development. Any groundwater removed during excavations will be discharged into the public sewer in accordance with the necessary consent/licence issued under Section 16 of the Local Government (Water Pollution) Acts and Regulations which will be obtained from Irish Water / Fingal County Council. All groundwater and surface water runoff will be managed during the

Construction Phase and there will be no unauthorised discharge of groundwater or surface water runoff to ground, drains or water courses during the Construction Phase of the Proposed Development. Therefore, as the necessary permits or authorisation for discharge of any water from the Site will be undertaken in accordance with Local Government (Water Pollution) Act 1977 (as amended) the potential impacts will have been adequately assessed and mitigated as part of the statutory consent and there will be 'neutral', 'imperceptible' and 'temporary' impact on the receiving water environment.

#### **13.2.5.7.2 Operational Phase**

The design of the Proposed Development incorporates a number of Sustainable Drainage System (SuDS) measures including:

- Green and blue roofs,
- Permeable paving,
- Bioretention areas,
- Road gullies draining via tree pits,
- Hydrobrake flow control device and associated attenuation storage.

Full retention fuel / oil separators will contribute to water treatment through the removal of metals, hydrocarbons and suspended solids from the surface water runoff at the Site of the Proposed Development.

Hence, it is considered that, once operational, the SuDS drainage measures for the Proposed Development, which are in line with the objectives of the Water Framework Directive (2000/60/EC), the Fingal Development Plan 2017-2023, and the requirements of the Greater Dublin Strategic Drainage Strategy (GDSDS), will result in an overall positive, slight, long-term impact on the quality of surface water drainage, and in turn, on the receiving surface water and groundwater quality.

#### **13.2.5.8 Foul Water Management**

Chapter 7 (Hydrology) of this EIAR and the Infrastructure Design Report (DBFL, 2022) which has been prepared for the Proposed Development contain further detail and specific information pertaining to the potential impacts of the Proposed Development on foul water management.

##### **13.2.5.8.1 Construction Phase**

During the Construction Phase a construction site compound will be set up to accommodate construction workers. The welfare facilities that will be installed for the Construction Phase will include a self-contained chemical toilet and a portacabin for canteen / site office. The chemical toilet will be emptied by an approved contractor as part on a maintenance contract.

The Infrastructure Design Report (DBFL, 2022) has identified that the existing 225mm diameter private foul drainage network in the immediate vicinity of the site is at capacity. It is therefore proposed to construct a new foul water drainage network to serve the Proposed

Development (Site B & C) as well as facilitating potential future development in the vicinity of Blanchardstown Town Centre. The new foul sewer network will discharge to the existing private 450mm diameter foul sewer located to the north-east of the site, which in turn outfalls to Irish Water's 9C trunk sewer. A confirmation of feasibility letter was received from Irish Water in October 2021. Irish Water have advised that provision of a foul drainage connection is "feasible subject to upgrades". These upgrades relate to completion of the "9C Duplication Project". Irish Water have advised that this project is currently at construction stage and is scheduled for completion in Q3 2022.

There may be some disturbances to the local foul water network during the Construction Phase, however the impact is considered to be temporary and not significant.

#### **13.2.5.8.2 Operational Phase**

The foul water drainage from the 352 No. units of the Proposed Development will be collected in the new foul water drainage network as described in Section 13.5.8.1. During the Operation Phase there will be an increased demand on Irish Water's 9C trunk public sewer, which is undergoing upgrades. The Infrastructure Design Report (*DBFL, 2022*) estimates that the Proposed Development shall produce foul water discharge at a peak rate of 11.9 l/s during the Operational Phase.

Foul water from the Blanchardstown Town Centre is ultimately discharged to Ringsend Wastewater Treatment Plant (WwTP). An in-depth study of the foul water treatment infrastructure in the Greater Dublin Area was ordered by the Dublin Region Local Authorities in 2005, which identified the Ringsend WwTP as overloaded and not in compliance with the EU's Urban Wastewater Treatment Directive.

A major upgrade is now underway at the Ringsend WwTP to increase the treatment capacity of the facility from 1.6 million Population Equivalent (PE) to 2.4 million PE. The upgrade works will allow (on a phased basis) the facility to treat the increasing volumes of wastewater while achieving the standards of the Urban Wastewater Treatment Directive, enabling future housing and commercial development in the Greater Dublin Area. Additionally, a proposed WwTP at Clonsaugh will, in the future, reduce the dependency on the Ringsend WwTP.

The increase in foul water at the Ringsend WwTP as a result of the Proposed Development is considered to be insignificant in terms of the overall scale of the facility. The increased load does not have the capacity to alter the effluent released from the WwTP to such an extent as to result in likely significant effects on its receiving waters (Dublin Bay). Therefore, the impact on the foul water network as a result of the Operational Phase of the Proposed Development is considered to be neutral, imperceptible and long term.

#### **13.2.5.9 Resource and Waste Management**

The Construction and Demolition Waste Management Plan (CDWMP) (*Enviroguide Consulting, 2022*), which has been prepared for the Proposed Development, contains further detail and specific information regarding resource and waste management during the Construction Phase of the Proposed Development. The Operational Waste Management Plan (OWMP) (*Enviroguide Consulting, 2022*) contains further detail and specific information



regarding resource and waste management during the Operational Phase of the Proposed Development.

#### 13.2.5.9.1 Construction Phase

The Construction Phase will give rise to the requirement to remove and bring quantities of various materials to and from the Site of the Proposed Development. Construction and demolition related resources and wastes will be created during the Construction Phase. This has the potential to impact on the local waste management network. The potential impact from the Construction Phase on waste recovery and disposal is likely to be short-term and moderate.

A Construction environmental Management Plan (CEMP) has been prepared by DBFL Consulting. The Construction Environmental Management Plan (CEMP) will be reviewed and updated, as necessary, by the Contractor once appointed and in advance of Site works beginning. Site clearance activities will occur in accordance with the CEMP. A Construction and Demolition Waste Management Plan (CDWMP) has been prepared for the Proposed Development by Enviroguide Consulting (*March 2022*) and has been submitted with this planning application.

As the Proposed Development is planned to be built on an existing surface level carpark and a pre-existing multistorey carpark, there will be very little demolition or clearance associated with the Proposed Development. Stripping of asphalt and concrete from hard paved areas, and the excavation of soil and bedrock will be required during the Construction Phase to achieve the required formation levels for the Proposed Development, including building foundations, roads, drainage and other infrastructure. The volume of soils and subsoils generated as part of the site clearance works have been quantified by DBFL Consulting Engineers (2022) as 9,700m<sup>3</sup> and further details are provided in Chapter 6, Land and Soils, of this EIAR. There is limited potential for reuse of excavated soil and stone as part of the Proposed Development, however, up to 1,000m<sup>3</sup> of asphalt and concrete surfacing and 2,500m<sup>3</sup> of soil and stone excavated at the Proposed Development Site will be reused onsite as granular material beneath road pavement, under floor slabs, for drainage and utility bedding / surrounds and construction phase haul routes etc.

Offsite removal of soils will be undertaken in accordance with the CDWMP and relevant waste management legislation. The offsite re-use of material will be prioritised to minimise the potential loss of valuable good quality soil and subsoil to landfill as a waste. The re-use of soil offsite will be undertaken in accordance with all statutory requirements and obligations including where appropriate re-use as by-product in accordance with Article 27 of the European Communities (Waste Directive) Regulations 2011 (SI No. 126 of 2011) as amended (referred to hereafter as Article 27). Any soil not suitable for re-use as a by-product and other waste materials arising from the Construction Phase will be removed offsite by an authorised contractor and sent to the appropriately authorised (licensed/permitted) receiving waste facilities. As only authorised facilities will be used, the potential impacts at any authorised receiving facility sites will have been adequately assessed and mitigated as part of the statutory consent procedures.

During construction activities, waste will also be produced from construction of units at the Site. There will be a surplus of material such as off-cuts of timber, broken concrete blocks,

plasterboard, tiles etc. Packaging waste is also expected to be produced. The waste materials will be segregated at source and stored in suitably size receptacles within the contractors compound and transferred offsite for appropriate processing, recycling and recovery. Waste materials generated from the construction phase that are unsuitable for reuse or recovery shall be separately collected. Disposal of construction generated wastes will be considered a last resort once recycling or recovery options have been ruled out. Waste will be collected as appropriate by suitably qualified and permitted nominated waste management contractors.

It is not envisaged that there will be any hazardous waste generated throughout the construction works however if generated, on-site storage of any hazardous wastes produced (i.e., waste fuels/chemicals) will be kept to a minimum, with compliant removal off-site organised on a regular basis. Offsite removal of hazardous waste will be undertaken in accordance with the CDWMP and relevant waste management legislation by an authorised contractor and sent to the appropriately authorised (licensed/permitted) receiving waste treatment facilities. As only authorised facilities will be used, the potential impacts at any authorised receiving facility sites will have been adequately assessed and mitigated as part of the statutory consent procedures.

Waste will also be generated from construction workers e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices. Office and canteen waste, including food waste, will be stored in wheelie bins on site and it will be collected by an appropriately authorised waste collector. All wastes generated on site will be sent for recycling, recovery, or disposal to a suitably licensed or permitted waste facility. As the quantity of waste that will be generated is small in scale, it is not considered that there will be any impact on waste management in the area.

In the absence of mitigation, the site clearance works could have a temporary major negative effect on local land-use, surface water quality and waste management resources in the locality.

### 13.2.5.9.2 Operational Phase

An Operational Waste Management Plan (OWMP) has been prepared by Enviroguide Consulting and has been submitted with this planning application.

The impact of the Operational Phase of the Proposed Development on municipal waste disposal will result in an increase in demand for waste collections and waste treatment in the area. Anticipated wastes arising from the day-to-day operations at the site are summarised below:

Waste Type	List of Waste Code
Mixed Municipal Waste (commercial & industrial non process)	20 03 01
Mixed Dry Recyclables	20 03 01
Biodegradable Kitchen and Canteen Waste	20 01 08
Municipal Wood	20 01 38
Municipal Plastics	20 01 39

Municipal Metals	20 01 40
Waste Electrical and Electronic Equipment	20 01 35, 20 01 36

Municipal waste is made up of household waste and commercial waste that is compositionally comparable to household waste. It includes residual, recyclables, organic, bulky and waste electrical and electronic equipment.

A weekly collection system will operate for the apartments, and to accommodate this it has been calculated within the OWMP that storage for 9 no. 1,100 Litre bins for mixed municipal (non-recyclable) waste, 24 no. 1,100 Litre bins for dry mixed recyclables, 8 no. 660 Litre bins for organic/food waste bins and 3 no. 360 Litre bins for glass will be required.

Any additional household wastes such as glass, bulky waste, WEEE, batteries, textiles etc. must be brought to a local recycling facility. There is a large Civic Amenity Centre in Coolmine, approximately 1km southwest of the Site of the Proposed Development servicing the Fingal area, with 4 no. bring banks within a 1km radius of the Site for glass and aluminium recycling.

To ensure that residents segregate their waste properly in the apartments, adequate space has been allocated in the design of the kitchen area to accommodate a three-compartment bin for waste segregation at source. Additionally, the OWMP states: *“the Management Company will be responsible for the provision of a leaflet to all new tenants encouraging good waste segregation and pictorial information detailing the waste streams that can be placed in each bin. In addition to this, clauses that support waste segregation targets will be included in relevant legal documentation e.g., tenancy agreements where possible.”*

The potential impact from the Operational Phase on municipal waste disposal is therefore likely to be *long term* and *moderate*.

#### **13.2.5.10 Potential Cumulative Impacts**

Cumulative Impacts can be defined as *“impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project”*. Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor. Such effects are not caused or controlled by the project developer.

A review of other off-site developments and proposed developments was completed as part of this assessment. The following projects and plans were reviewed and considered for possible cumulative effects with the Proposed Development:

Table 13-25 details the existing, proposed and granted planning permissions on record in the area. The following relatively large-scale developments have been permitted:

*Table 13-25 Potential Cumulative Impacts*

Planning Ref No.	Development Name	Summary of Development	Cumulative Impact Assessment
FW22A/0010	<b>Green Mall (Also known as the Central Mall) &amp; Yellow Mall</b>	<p>A planning application was registered on 28<sup>th</sup> January 2022 at the existing Green Mall, awaiting final decision:</p> <p>"The proposal relates to the identification of three external mobile food stall zones to provide for the placing of a total of 7 no. food stalls or vans and associated seating at the Green Mall Entrance, the Yellow Mall Entrance and to the front of Unit 418 and Unit 419 (currently occupied by Homestore and More and Woodies DIY, respectively) at Retail Park 2.</p> <p>The proposed development will include the following:</p> <ul style="list-style-type: none"> <li>•Area A adjacent to the Green Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 4 no. food stalls or vans and associated seating;</li> <li>•Area B adjacent to the Yellow Mall Entrance, comprises a mobile food stall zone and seating area to accommodate 2 no. food stalls or vans and associated seating. The existing bicycle / trolley bay is to be removed and replaced by a new bicycle shelter;</li> <li>•Area C to the front of Unit 418 and Unit 419 at Retail Park 2, comprises a mobile food stall zone to accommodate 1 no. food stall or van.</li> </ul> <p>The proposed use of the individual mobile food stalls or vans is to be Restaurant / Café use, including take-away use.</p> <p>The proposed development includes for typical signage and lighting affixed to the individual mobile food stalls or vans, and all other works in connection with the proposed use."</p>	<p>Due to the nature of this Proposed Development, no potential cumulative impacts have been identified or are anticipated if this development is granted planning permission.</p>



FW18A/0168	Blue Mall	<p>A planning application was granted permission on the 11th of September 2019 for the following development at the existing Blue Mall within the Blanchardstown Centre:</p> <p>"The demolition of 369 sq.m of existing floorspace to provide for an extension of the Blue Mall over two levels, with plant at roof level, and an internal mall plaza area, resulting in an additional GFA of 4,559 sq.m.</p> <p>The extension includes the provision of 9 no. café/restaurant units ranging in size from 105 sq.m to 827 sq.m, provision of a retail unit with a GFA of 63 sq.m (to provide for the relocation of Unit 309) and associated signage zones.</p> <p>A new Blue Mall entrance comprising a large entrance portico, glass canopy and centre signage which is flanked on either side by the proposed café/restaurant units and terraces with outdoor seating areas.</p> <p>A public plaza containing seating and public art/sculpture, landscaping and ancillary improvement works.</p> <p>The re-alignment of the northern lane of Road D, the provision of new pedestrian crossings and the upgrade of the existing pedestrian crossing at the Blue Mall entrance to include shared surfaces on Road D and on the slip road south of Road D.</p> <p>The reconfiguration of part of the existing Leisureplex car park to incorporate a proposed taxi stacking area to provide for the relocation of the existing taxi rank. The proposal includes associated changes to car parking areas, provision of 28 no. additional bicycle parking spaces, an ESB double substation and switchroom, lighting, landscaping, site development and ancillary works."</p>	<p>There is potential for cumulative effects on the local water network in the absence of mitigation. This collective management is described within the SuDS and Surface Water Management Masterplan.</p> <p>It is predicted that the Proposed Development will have positive cumulative effects on urban settlements in the form of employment, access and transport infrastructure by allowing movement through a previously impermeable area.</p> <p>The cumulative effects of the Proposed Development with other developments in the surrounding area on foul and surface water disposal, potable water supply, natural gas supply, electrical supply, telecoms and waste are anticipated to be negligible.</p>
FW20A/0030 (Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)	Blue Mall	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development:</p> <p>"Provision of two internal kiosk zones of 62 sq.m each to accommodate retail/commercial kiosk units along with all associated signage, storage, service areas, kiosk seating, queuing, circulation and all other site development works within the mall areas (Level 2) of the permitted Blue Mall extension."</p>	<p>Planning has been granted for the development of The Blue Mall. Development works have been completed.</p>

<p><b>FW20A/0018</b> <b>(Amendment to the permitted Blue Mall extension Reg. Ref.: FW18A/0168)</b></p>	<p><b>Blue Mall</b></p>	<p>A planning application was granted permission on the 2<sup>nd</sup> July 2020 at the existing Blue Mall for the following development: "Provision of an additional café / restaurant unit with a GFA of 90sq.m at ground floor level (Level 2) adjacent to permitted Unit 724 and existing Unit 311, including relocation of existing ATM unit and omission of a permitted secondary entrance to the internal mall. Associated alterations to internal mall seating and modifications to fenestration. Alterations to permitted landscape treatment to the northwest of the main Blue Mall entrance. All associated and ancillary works."</p>	<p>Therefore, there are no potential cumulative impacts.  This development has been considered within the baseline assessment for the Proposed Development.</p>
<p><b>FW17A/0147</b></p>	<p><b>Red Mall</b></p>	<p>A planning application was granted permission on the 28<sup>th</sup> November 2017 at the existing Red Mall for the following development:  "The application site relates to The Red Mall area of the Blanchardstown Centre including existing unit numbers 183-184, 185,188, 189,190, 191, 191A, and 196 on Level 1 and existing unit numbers 188, 189 190, 217,219-221, 222 and 500 on Level 2, and includes the existing service yard and part of the surface car park.  The proposed development involves the demolition of the internal and external walls, service yard walls and associated structures, to provide for an extension of the Red Mall over two levels, resulting in a total addition GFA of 3,359 sq.m with a plant area and 21 sq. m plant room proposed at roof level. The proposal results in an additional gross retail area of 2,270 sq.m consisting of 1,066 sq. m at Level 1 (Units 184,185 and MSU (Medium Sized Unit) and 1,204 sq. m at Level 2 (Units 181,216,276-289 and MSU) and includes an extension of the internal mall at Level 2 to connect to the existing Cental Mall.  The proposal removes the existing service yard area to provide a MSU retail unit, with external signage proposed on the north-east and south-east elevation. The service yard is proposed to be relocated north west of the proposed MSU and will include a switchroom, substation, bins and storage units. The proposal involves the removal of 55 no. car parking spaces, the provision of 26 no. bicycle parking spaces and associated landscaping works and boundary treatments, and the provision of 1 no. electric car charging station."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.  Therefore, there are no potential cumulative impacts.  This development has been considered within the baseline assessment for the Proposed Development.</p>
<p><b>18/4206</b></p>	<p><b>Red Mall</b></p>	<p>A planning application was granted permission on the 17<sup>th</sup> October 2018 at the existing Red Mall for the following development:  "It is proposed to extend the existing Red Mall within Blanchardstown Town Centre by constructing 3 new units and rearranging the existing mall entrance."</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>

FW18A/0143	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> January 2019 at the existing Red Mall for the following development:</p> <p>"The proposed development includes the demolition of internal and external walls, service yard walls and associated structures, to provide for a single level extension of the Red Mall, resulting in an additional gross floor area of 2,064 sq.m. The proposed development will provide a single level retail unit (including off-licence use) with a GFA of 2,066 sq.m and associated service yard, a café unit (GFA 63 sq.m), a shop mobility unit (GFA 44 sq.m) and an entrance extension (GFA 52 sq.m). The proposal includes the demolition and upgrade of the existing Red Mall entrance to include a new canopy and integrated vertical entrance structure and centre signage. A signage zone is proposed on the south-east elevation of the proposed retail extension and on the café / mobility unit. The proposal includes the re-configuration of the existing service yard area and car park area, including a net removal of 87 no. car parking spaces. The proposal includes the provision of 2 no. electric car charging spaces, the re-location of existing bicycle parking spaces and provision of 22 no additional bicycle parking spaces providing a total of 60 no. bicycle parking spaces to be located within a bicycle shelter, the provision of a new pedestrian crossing on Road C and all associated landscaping and ancillary works.</p> <p>The proposed development supersedes the Red Mall extension scheme permitted under Reg. Ref.: FW17A/0147."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
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FW19A/0017	Red Mall	<p>A planning application was granted permission on the 30<sup>th</sup> April 2019 at the existing Red Mall for the following development:</p> <p>"We, Blanche Retail Nominee Limited, intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW18A/0143 at the Red Mall, Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Red Mall area of the Blanchardstown Centre, including the existing entrance and unit number 191 on Level 1, the existing service yard, part of the surface car park and a section of the public footpath and Road C to the south east of the Red Mall. Permission is sought to amend Conditions No. 2(i), 4(i), and 12 and omit Condition No. 11 of the above referenced permission as follows.</p> <ul style="list-style-type: none"> <li>• Amend Condition No.2(i) to include reference to the off-licence use within the single-level retail unit as referenced in the development description under Reg. Ref.: FW18A/0143;</li> <li>• Amend Condition No.4(i) to refer specifically to the signage zone for the retail unit and mobility unit;</li> <li>• Omit Condition 11 which relates to the control of delivery hours;</li> <li>• Amend Condition 12 to extend the trading hours of the retail unit and the cafe unit to the following: <ul style="list-style-type: none"> <li>• Monday - Friday: 08.00 (8 am) to 22.00 hours (10 pm)</li> <li>• Saturday: 08.00 (8 am) to 21.00 hours (9 pm)</li> <li>• Sunday and Bank Holidays: 09.00 (9 am) to 21.00 hours (9 pm)."</li> </ul> </li> </ul>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
dac/145/19	Red Mall	<p>A planning application was granted permission with conditions on the 4<sup>th</sup> December 2019 at the existing Red Mall for the following development:</p> <p>"Internal fit out of a shell unit (No 196) Red Mall, Blanchardstown Shopping Centre"</p>	<p>Planning has been granted for the development of The Red Mall. Development works have been completed.</p>
19/4224	Red Mall	<p>A planning application was granted permission with conditions on the 12<sup>th</sup> March 2020 at the existing Red Mall for the following development:</p> <p>"The fitting out of a shell unit (Unit 196) which is part of an extension to the existing Red Mall at Blanchardstown Shopping Centre for use as a licensed convenience foodstore with associated storage and loading facilities."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>



FW17A/0074	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> July 2017 at the existing Green Mall for the following development:</p> <p>"The proposed development involves the demolition of internal walls, service yard walls and associated structures, to provide for an extension of the Central Mall over three levels, resulting in a total additional GFA of 2,901 sq.m, with a screened tenant plant area proposed at roof level. The proposal results in an additional gross retail area of 2,666 sq.m, consisting of 784 sq.m at Level 1 (Unit 114/116 and 117), 702 sq.m at Level 2 and 1,180 sq.m at Level 3 (an additional floor level) (Unit 206-207, 208, 211-212 at Level 2 and 3).</p> <p>The proposal part infills the existing service yard and extends the service yard area, which includes a relocated switchroom, substation, telecoms room (all within a utilities building), plant and refuse storage areas, into the adjacent car park. The proposal involves the removal of 46 no. car parking spaces in the adjacent car park (Green), the provision of 30 no. bicycle parking spaces and associated landscaping works and boundary treatments."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development.</p>
FW18A/0105	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 16<sup>th</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"intend to apply for planning permission for amendments to the development permitted under Reg. Ref.: FW17A/0074 at Blanchardstown Town Centre, Coolmine, Dublin 15. The application site relates to the Central Mall (also known as Green Mall) area of the Blanchardstown Centre, including existing unit numbers 114, 115/116, 206, 208, 211 and 212, and includes the adjacent service yard and part of the surface car park.</p> <p>The proposed modifications to the permitted Central Mall scheme (Reg. Ref.: FW17A/0074), will consist of the omission of level three, to provide a two level extension of the Central Mall, with a proposed reduction in the total additional GFA from 2,901 sq.m to 1,486 sq.m. The proposal results in an additional gross retail area of 1,419 sq.m, consisting of 746 sq.m at Level 1 (Unit 114/116) and 673 sq.m at Level 2 (Unit 206, 208, 211-212). A screened tenant plant area is proposed at roof level. The proposed development includes part infill of the service yard area, and provision of an extended service yard with all associated structures, the removal of 46 no. car parking spaces, the provision of 16 no. bicycle parking spaces, associated landscaping and boundary treatments, and all associated development works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

FW18A/0116	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Demolition and upgrade of the existing Green Mall entrance to include a new canopy and integrated vertical entrance structure, centre signage, and a cafe unit (GFA 59 sq.m) and associated signage zone. The proposal includes associated landscaping and ancillary works."</p>	<p>Planning has been granted for the development of The Green Mall. Development works have been completed.</p>
18/4234	<b>Green Mall (Also known as the Central Mall)</b>	<p>A planning application was granted permission with conditions on the 31<sup>st</sup> October 2018 at the existing Green Mall for the following development:</p> <p>"Proposed changes relate to the extension of the green mall at Blanchardstown Shopping Centre. A new cafe will be constructed as an extension to the existing centre, and the existing centre entrance will be modified."</p>	<p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>
FW18A/0011	<b>Yellow, Green, Central, Red and Blue Malls.</b>	<p>A planning application was granted permission with conditions on the 22<sup>nd</sup> May 2018 at the existing Yellow, Green, Central, Red and Blue Malls for the following development:</p> <p>"The proposal relates to the identification of a Kiosk Zone (relating to a total floor area of c. 5,534 sq.m.) in the mall area of Level 1 and Level 2 of the Blanchardstown Centre, encompassing the Yellow, Green, Central, Red and Blue Malls.</p> <p>The proposed kiosk zone could accommodate a maximum of 54 no. retail/commercial kiosk units of a range of sizes, with the maximum cumulative GFA of the kiosks not exceeding a total of 979 sq.m, and all associated signage, storage, service areas, kiosk seating, queuing, circulation areas and all site development works. The potential maximum kiosk GFA of 979 sq.m represents a potential net increase of kiosk GFA of 516 sq.m, based on the total GFA of existing kiosks of c. 463 sq.m.</p> <p>The development of individual kiosks within the Kiosk Zone will adhere to the design parameters set out in the Kiosk Design Guidelines which accompany this application.</p> <p>The proposed use of individual kiosks to be for retail or commercial use in accordance with the definition of Class 1 (Shop) or Class 2 (Services) use, Part 4 of Schedule 2 of the Planning &amp; Development Regulations 2001-2017, or for use primarily as a restaurant, café or food takeaway."</p>	<p>This planning has been granted for the development of The Green Central, Red and Blue Malls. Development works have been completed.</p> <p>Therefore, there are no potential cumulative impacts.</p> <p>This development has been considered within the baseline assessment for the Proposed Development</p>

F07A/1416/E1	<p><b>Site Known As Yellow Car Park, Adj. To Yellow Entrance Of Blanchardstown Centre, Bordered By Rds Known As E &amp; D &amp; On Site Known As White Car Park, Bordered By Roads E, G &amp; Blanch Rd, Blanchardstown Centre, Coolmine, Dublin 15</b></p>	<p>Demolition of Entrance Pavilion and removal of 380 No. car parking spaces, to provide for the Construction of: 3 storey development totaling 32,082 m<sup>2</sup> excluding carparking; and consisting of 25,286m<sup>2</sup> of Retail/Restaurant units, including 12,918 m<sup>2</sup>. Major Store Unit over 3 storeys, 17 No. Internal Retail Units, 8 No. External Retail/Restaurant Units and a food court, over two storeys; 1457 m<sup>2</sup> of Mall as an extension to the existing Yellow Mall; 5,339 m<sup>2</sup> of associated Plant and Services space; all over 2 No. Underground Levels of Carparking containing a total of 749 underground car spaces adjacent to underground service tunnel; Glazed Entrance Link from underground Carpark to Street outside new proposed Entrance to Yellow Mall 5 No. ESB Sub Stations; Revised Signal Controlled Crossroads incorporating Pedestrian Crossings to replace existing roundabout at junction of Roads known as E, G, D, including new road between proposed revised crossroads and Blanchardstown Road South, incorporating access and egress ramps and associated tunnel to proposed underground Carpark. Associated entrances and works to existing White Carpark adjacent to Retail Park 3, the removal of 250 No. Car parking spaces and the provision of 227 No. Car parking spaces resultant in the provision of a net gain of 344 number Car parking spaces when combined with basement carparking and removal of spaces from existing Yellow Carpark; all associated hard and soft landscaping, signals and signage. An EIS will be submitted to the Planning Authority with the planning application.</p>	<p>Extension Of Duration Of Permission was granted. However this planning grant has now expired. Therefore there are no potential cumulative impacts from this planning application.</p>
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#### 13.2.5.11 “Do Nothing” Impact

A “Do-Nothing” scenario would result in the Site remaining as a surface car park site and a multistorey carpark. If the Proposed Development were not to proceed, the existing Site would continue to be present and operational.

#### 13.2.5.12 Avoidance, Remedial & Mitigation Measures

##### 13.2.5.12.1 Construction Phase

The appointed contractor will be required to review and update the Construction Environmental Management Plan (CEMP), as necessary, which will define aspects such as construction phasing, connection to site utilities, shut off contingencies and diversions as necessary to prevent any negative effects on material assets. The CEMP will be implemented for the duration of the Construction Phase and, along with the RWMP, they will cover all construction and waste management activities required during the Construction Phase.

All works will be undertaken in accordance with the requirements of the CEMP and having regard to the relevant industry standards (e.g. Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The following mitigation measures are proposed for the construction phase of the proposed development with reference to Material Assets:

- Waste materials will be separated at source and should follow the Construction Environmental Management Plan (MEA, 2021).
- Prior to commencement a detailed calculation on the quantities of topsoil and subsoil waste will be prepared.
- Soils will be tested to confirm they are clean, inert or non-hazardous.
- A suitably competent and fully permitted waste management company will be employed to manage all waste arising for the Construction Phase. The appointed waste contractor shall have the relevant authorisations for the collection and transport of waste materials office. Waste Permitting, Licences & Documentation under the Waste Management (Collection Permit) Regulations 2007, as amended, a collection permit to transport waste, which is issued by the National Waste Collection Permit Office (NWCPO), must be held by each waste collection contractor.
- Similarly, all waste will be transported to an appropriately authorised facility (Local Authority COR/WFP or EPA licenced facility)
- All waste quantities and types will be recorded and quantified with records retained onsite for the duration of the Construction phase.
- Refuelling of plant and machinery on-site will be by mobile tanker in a designated area with appropriate containment measures in place.

#### **13.2.5.12.2 Operational Phase**

Mitigation measures relating to site drainage and stormwater management in the Proposed Development are detailed within Chapter 7, Hydrology.

As outlined in the OWMP for the Proposed Development, it is intended to ensure that the highest possible levels of waste reduction, waste reuse and waste recycling are achieved for the Proposed Development. Specifically, the OWMP aims to achieve waste prevention, maximum recycling and recovery of waste with a focus on diversion of waste from landfill wherever possible.

The typical wastes that will be generated during the Operational Phase of the Proposed Development will include the following:

- Dry Mixed Recyclables – These materials could potentially catch fire, and this would have a significant effect on the local environment with a short-term impact. This risk is mitigated by the design of a safe and secure bin storage area with adequate space for waste storage.
- Organic waste – These materials could attract vermin if it is not appropriately stored, and the stores maintained. The appointed Management Company will be responsible for ensuring that there is adequate vermin control in place.
- Glass – No significant environmental concerns have been identified for the storage of domestic glass waste at the Proposed Development.
- Mixed Municipal (Non-Recyclable) Waste – These materials could attract vermin if it is not appropriately stored and the stores maintained. The appointed Management Company will be responsible for ensuring that there is adequate vermin control in place.



No further mitigation measures are considered necessary during the Operational Phase. The existing utilities and services will facilitate the required needs of the development without impacting on any existing utilities within the locality.

#### **13.2.5.13 “Worst Case” Scenario**

The worst-case scenario would be if the subject lands remained undeveloped, resulting in the need for additional residential units within the Dublin Metropolitan Area not being met and potentially necessitating the development of greenfield lands more remote from the city centre and from established services in the transport, education, social and commercial sectors in an area that is less suitable.

#### **13.2.5.14 Residual Impacts**

Residual Impacts are defined as ‘*effects that are predicted to remain after all assessments and mitigation measures*’. They are the remaining ‘*environmental costs*’ of a project and are the final or intended effects of a development after mitigation measures have been applied to avoid or reduce adverse impacts. Potential residual impacts from the Proposed Development were considered as part of this environmental assessment.

With consideration to mitigation measures proposed within the EIAR, no significant residual impacts on Material Assets are anticipated. The implementation of the mitigation measures as outlined above and in other Chapters of this EIAR will ensure that there will be no significant adverse residual impacts associated with the Proposed Development.

#### **13.2.5.15 Monitoring**

There are no specific monitoring measures proposed in relation to Material Assets - Utilities and Waste. The project design of the Proposed Development has facilitated the improvements required to service the site without negatively impacting the local existing utilities.

The monitoring of construction dust during the Construction Phase of the Proposed Development is recommended to ensure that impacts are not experienced beyond the Site boundary. Monitoring of dust can be carried out by using the Bergerhoff Method. Dust monitoring details are discussed in Chapter 8, Air Quality.

The monitoring of construction and demolition waste during the Construction Phase of the Proposed Development is recommended to ensure that impacts are not experienced beyond the Site boundary. The Main Contractor will be responsible for monitoring and record keeping in respect of waste leaving the facility and that these records will be maintained on site.

#### **13.2.5.16 Interactions**

Material Assets, Utilities and Waste interact with other environmental attributes as follows:

- **Air Quality:** In the event of nuisance dust being created during the Construction Phase, this could impact on local settlement and human health. Potential impacts on Population and Human Health, and Air Quality are addressed in Chapters 4 and 8 respectively.

- Land and Soil: In the event of spillage/leaks from waste storage areas, this could negatively impact on the land and soil. Potential impacts on land and soils are addressed in Chapter 6.
- Surface and Ground Water): Surface water runoff from Site may become contaminated during construction activities. This could negatively impact on the surface water and groundwater quality. Potential impacts from the Construction Phase on local hydrology and surface and ground water are addressed in Chapter 7, Hydrology.
- Foul Water: There may be some disturbances to the local foul water network during the Construction Phase, however the impact is considered to be temporary and not significant.

#### **13.2.5.17      *Difficulties Encountered When Compiling***

No difficulties were encountered in the preparation of this Chapter.

#### **13.2.5.18      *References***

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EPA (2015) Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous

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National Standards Authority of Ireland (NSAI), 2017. IS EN752, "Drain and Sewer Systems Outside Buildings – Sewer system Management. NSAI, 1 Swift Square, Northwood, Santry, Dublin 9

## 14 RISK MANAGEMENT

### 14.1 Introduction

This chapter of the EIAR sets out the assessment of the vulnerability of the Proposed Development to risks of major accidents and/or disasters. It assesses the expected effects of the project to risk of major accidents and disasters relevant to the project. It includes the methodology used for the assessment. This chapter was prepared by Enviroguide Senior Environmental Consultant Nikita Coulter. Nikita Coulter has a B.Sc. in Zoology (Hons) from University College Dublin, an M.Sc in Biodiversity and Conservation and a Postgraduate Diploma in Environmental Engineering from Trinity College Dublin, and a NEBOSH accredited International Diploma in Environmental Risk Management. Nikita has 8 years professional experience as an Environmental Compliance Specialist in the Irish waste management industry, dealing with municipal and hazardous waste management and energy recovery.

The Interactions and Mitigation and Monitoring Measures are included in Chapters 14 and 15, respectively.

### 14.2 Study Methodology

#### 14.2.1 Scope and Context

The relevant legislation to which this chapter applies is Statutory Instrument (SI). No. 296/2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 and in particular Schedule 6 – Information to be contained in EIAR. The following paragraphs of Schedule 6, Paragraph 2(e)(i)(IV), specifically refers "*a description of the likely significant effects on the environment of the proposed development resulting from ... the risks to human health, cultural heritage or the environment (for example due to accidents or disasters),*"

Paragraph 2(h) further expands with "*a description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as the Seveso III Directive or the Nuclear Safety Directive or relevant assessments carried out pursuant to national legislation may be used for this purpose, provided that the requirements of the Environmental Impact Assessment Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for, and proposed response to, emergencies arising from such events.*"

#### 14.2.2 Guidelines and Reference Material

The assessment, of major accidents and disasters is a relevantly new requirement in legislation and, as a result, national guidelines are not yet available. Regard has been taken of the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA Draft, August 2017). Although this document predates the 2018 legislation it follows the requirements laid out in the Directive 2014/52/EU.



Specifically, the EPA Guidelines state that the EIAR must take account of “*the vulnerability of the project to risk of major accidents and /or disasters relevant to the project concerned and that the EIAR therefore explicitly addresses this issue. The extent to which the effects of major accidents and / or disasters are examined in the EIAR should be guided by an assessment of the likelihood of their occurrence (risk)... The potential for a project to cause risks to human health, cultural heritage or the environment due to its vulnerability to external accidents or disasters is considered where such risks are significant, e.g. the potential effects of floods on sites with sensitive plants. Where such risks are significant then the specific assessment of those risks in the form of a Seveso Assessment (where relevant) or Flood Risk Assessment may be required. The EIAR should refer to those separate assessments while avoiding duplication of their contents.*”

Reference has also been made to the Office of Emergency Planning, Department of Defence (DOD) Publication ‘A National Risk Assessment for Ireland 2020’. A consolidated list of national hazards for Ireland identified in the DOD document are identified in Table 14-1.

*Table 14-1: Consolidated List of National Hazards (Source: A National Risk Assessment for Ireland (2020) Department of Defence)*

<b>Hazard: Civil</b> <ul style="list-style-type: none"> <li>• Large Crowd Event</li> <li>• Pandemic</li> <li>• Water Supply Distribution and Contamination</li> <li>• Food Chain Contamination</li> <li>• Animal Disease</li> <li>• Terrorist Incident</li> </ul>	<b>Hazard: Natural</b> <ul style="list-style-type: none"> <li>• Storm</li> <li>• Snow and Ice (Including prolonged low temperature)</li> <li>• Flooding (Including pluvial, fluvial and coastal)</li> </ul>
<b>Hazard: Transportation</b> <ul style="list-style-type: none"> <li>• Maritime Incident</li> <li>• Air Incident</li> <li>• Transport Hub (Includes Airports, Ports and Rail Stations)</li> </ul>	<b>Hazard: Technological</b> <ul style="list-style-type: none"> <li>• Structural Collapse (Including Dam, Tunnel, Bridge and Building)</li> <li>• Nuclear Incident (Abroad)</li> <li>• Cyber Incident</li> <li>• Disruption of Energy Supply (Including oil, gas, electricity and communications)</li> </ul>

### 14.2.3 Risk Assessment Methodology

The risk assessment methodology has been supported by general risk assessment methods. Hazard analysis and risk assessment are accepted internationally as essential steps in the process of identifying the challenges that may have to be addressed by society, particularly in the context of emergency management. Mitigation as a risk treatment process involves reducing or eliminating the likelihood and/or the impact of an identified hazard.

*Table 14-2: Classification of National Likelihood Criteria (Source: A National Risk Assessment for Ireland (2020) Department of Defence)*

National Likelihood Criteria		
Rating	Classification	Average Recurrence Interval
1	Extremely Unlikely	500 or more years between occurrences
2	Very Unlikely	100-500 year between occurrences
3	Unlikely	10-100 years between occurrences
4	Likely	1-10 years between occurrences
5	Very Likely	Less than 1 year between occurrences

### 14.3 Predicted Impacts

The EIAR chapters within this report identify that the Proposed Development has been designed in accordance with best practice and that the Proposed Development can be safely undertaken without risk to health.

In order to understand the potential consequences and predicted impacts of any major accident or disaster due to the Proposed Development and the vulnerability of the project a desk study was undertaken. The assessment reviewed:

- The vulnerability of the project to major accidents or disasters.
- The potential for the project to cause risks to human health, cultural heritage and the environment, as a result of that identified vulnerability.

A methodology has been used including the following phases:

#### **Phase 1 Assessment:**

The DOD Consolidated List of National Hazards was used to identify a preliminary list of potential major accident and disasters. Receptors covered by legislation were not included within the assessment e.g. construction workers.

#### **Phase 2 Screening:**

The list was screened and major events such as volcanoes were not included given the unlikely event of one occurring. Elements already addressed as a key part of the design e.g. risks of building collapse, are not repeated.

#### **Phase 3: Mitigation and Evaluation**

In the event that mitigation measures included did not mitigate against the risk, then, the potential impacts on receptors are identified in the relevant chapter. Table 14-3 lists the major accidents and/or disasters reviewed.

Table 14-3: Major Accidents and/or Disasters Reviewed

Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
<b>Civil</b>				
Large Crowd Event	N	Not considered vulnerable	N/A	N/A
Pandemic	Y	<p>COVID-19 is an illness that can affect your lungs and airways. It is caused by a virus called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). SARS-CoV-2 is spread in sneeze or cough droplets. The Proposed Development poses no additional COVID-19 risk.</p> <p>It is anticipated that there will be 450 workers directly employed during the construction phase of the project. The Governments 'Work Safety Protocol' and the Construction Industry Federation 'Back to Work Resource Pack' will be adhered to.</p> <p>During the construction phase of this Proposed Development HSE guidelines will be adhered to in relation to social distancing, cough and sneeze etiquette and hand washing. Appropriate welfare facilities will be provided at the construction compound. Frequently touched objects and surfaces such as door handles, machine steering wheels and gear levers will be cleaned and disinfected frequently.</p> <p>There will be approximately 50 workers directly employed during the operational stage. All workers directly and indirectly employed during the operational phase of the Proposed Development will comply with the relevant Government protocols that will be in place at that point in time in relation to COVID-19.</p>	Local businesses, construction workers	Chapter 4 (Population and Human Health) of this report addresses the Pandemic.



Water Supply Contamination	Y	<p>Waterborne diseases can be caused by consuming contaminated drinking water. No public health issues have been identified for the Construction Phase or Operational Phase of the Proposed Development.</p> <p>Appropriate industry standard and health and safety legislative requirements will be implemented during the Construction Phase that will be protective of site workers in particular associated with the dewatering works.</p> <p>The existing water supply for the Proposed Development will be via connection to the public supply.</p> <p>There are no downgradient groundwater sources identified on the GSI database that would be potentially at risk in the unlikely event of any potential contamination arising at the Site receptors and therefore no potential human health issues associated with groundwater quality.</p>	Local water users	Chapter 7 (hydrology) of this report identifies the control measure required to avoid contamination of water supplies during construction works.
Food Chain Contamination	Y	Potentially relevant to the Proposed Development in the Operational Phase. Food premises in the retail units would have to register the premises with the HSE and would need to adhere to food safety legislation and traceability requirements.	Consumers/Producers	N/A
Animal Disease	N	Not relevant to the Proposed Development	N/A	N/A
Terrorist Incident	N	Not considered vulnerable due to the nature of the Proposed Development, i.e., residential/commercial development.	N/A	N/A
<b>Transportation</b>				
Maritime Incident	N	Not considered vulnerable. The Site of the Proposed Development is approximately 13km from the nearest coastline at Dublin Port.	N/A	N/A
Air Incident	N	Not considered vulnerable. The closest commercial airport is Dublin Airport, which is approximately 9.6km northeast of the Site of the Proposed Development. The closest Public Safety Zone (PSZ) associated with the runways at Dublin Airport is located approximately 3km north of the Site of the Proposed Development.	N/A	Section 13.4.2 of this Chapter (Risk Management) assess the vulnerability of the Proposed Development to air incidents.

		The closest domestic airport is Weston Airfield, which is located approximately 7.5km southwest of the Site of the Proposed Development. Casement Aerodrome, Baldonell is a military airbase located approximately 9.7km southwest of the Site of the Proposed Development.			
Transport Hub (Includes Airports, Ports and Rail Stations)	N	Not considered vulnerable as the Site of the Proposed Development is not defined as a Transport Hub.  The closest rail station is Castleknock Train Station, which is approximately 1.6km east of the Site of the Proposed Development.  The closest maritime port is Dublin Port, which is approximately 13km east of the Site of the Proposed Development. <i>For airports see above.</i>	N/A	N/A	
<b>Natural</b>					
Cultural, Archaeological and Architectural Heritage	Y	A historic hedgerow has been identified on the southern boundary of the site, and a historic townland boundary has been identified on the south-eastern boundary of the site. These boundaries will be retained as much as possible as detailed in the Landscape Report by Cameo.	Cultural Heritage		Chapter 10 Landscape and Visual Impact and the Landscape Report by Cameo.
Landslides	N	There are no recorded landslides at the Site, and two (2no.) recorded within 2km of the Proposed Development Site recorded on the GSI database.  The Proposed Development Site is located within an area with a 'Low' landslide susceptibility classification.	Proposed Development		Chapter 6 (Land, Soils and Geology) of this EIA assesses the vulnerability of the Proposed Development to landslides.
Sinkholes	N	The GSI (GSI, 2022) records for karst features indicate that there are no karst features (e.g., cave, enclosed depression, swallow hole, turlough) within 2km of the Proposed Development Site and therefore there are no identified risks associated with karst features, such as sinkholes, for the Proposed Development Site.  This Geology is not prone to sinkholes and no karst is mapped nearby.	Proposed Development		Chapter 6 (Land, Soils and Geology) of this EIA assesses the vulnerability of the Proposed Development to karst features, such as sinkholes.

Earthquakes	N	Earthquakes are not likely to occur in the vicinity of the Site at a sufficient intensity to pose a risk for the Proposed Development.	Proposed Development	Chapter 6 (Land, Soils and Geology) of this EIA assesses the vulnerability of the Proposed Development to seismic activity.
Floods	N	The Office of Public Works – National Flood Hazard Map does not identify any reoccurring flood events within a 2km radius of the Proposed Development Site. The findings of the Site-Specific Flood Risk Assessment (DBFL Consulting Engineers, January 2022a) concluded that the Proposed Development Site is located within Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1%AEP or 1 in 1000) for both river and coastal flooding and is considered suitable for development.	Proposed Development	Chapter 7 (Hydrology) of this report identifies the vulnerability of the Proposed Development to flooding.
Storm surge/tidal flooding	N	The Site of the Proposed Development is approximately 13 In the event of km from the nearest coastline. The findings of the Site-Specific Flood Risk Assessment (DBFL Consulting Engineers, January 2022a) concluded that the Proposed Development Site is located within Flood Zone C where the probability of flooding from the sea is low (less than 0.1%AEP or 1 in 1000) and is considered suitable for development.	Proposed Development	Chapter 7 (Hydrology) of this report identifies the vulnerability of the Proposed Development to flooding.
Severe weather such as storms, blizzards, droughts, tornados, heatwaves	Y	In the event of severe weather events, the national meteorological service, Met Éireann, provides advance notice of severe weather, usually several days in advance. When appropriate, colour-coded weather warnings are issued. The Office of Emergency Planning works with the government departments and other key public authorities in order to ensure the best possible use of resources and compatibility across different emergency planning requirements.	Residents / workers	Chapter 9 of this EIA deals with Microclimate, with particular focus on Ground Level Wind Safety
Air Quality events	Y	Dust emissions and the potential for nuisance dust during the Construction Phase. Not relevant for the Operational Phase.	Residents / workers	Chapter 8 of this EIA identifies the impact of the construction and operation of the development on ambient air quality. Mitigation measures are proposed.
Wildfires	N	Not relevant due to the urban location of the Site.	N/A	N/A
Dam, Bridge or Tunnel Failure	N	None present	N/A	N/A

Flood defence failure	N	No flood defence measures have been considered necessary as detailed in the SSFRA. Therefore, not considered relevant to the Proposed Development.	N/A	Chapter 7 (Hydrology) of this report identifies the vulnerability of the Proposed Development to flooding.
Fire	Y	There is a risk of fire on-site which might lead to loss of life and environmental pollution. The buildings have been designed in accordance with all relevant building and fire safety standards. Fire safety infrastructure and measures will be implemented at the Site during both the Construction and Operational Phases of the Proposed Development.	Construction workers / Residents / Employees	Section 14.4.1 of this Chapter deals with Fire Safety and Emergency Response
Invasive species	N	Not relevant	N/A	Chapter 5 Biodiversity identifies the vulnerability of the project to invasive species.
<b><u>Technological</u></b>				
Structural Collapse (Building)	N	This has been taken into consideration in the building design. All buildings have been designed to modern standards. No further assessment is required.	N/A	The design criteria of the buildings are in accordance with all relevant building design standards.
Structural Collapse (Dam, Bridge, Tunnel)	N	Not considered vulnerable as no dams, bridges or tunnels are proposed as part of the development.	N/A	N/A
Nuclear incident	N	Not considered vulnerable. There are no nuclear power stations near the Proposed Development. The closest is Trawsfynydd Nuclear Power Station, which is located approximately 170km east of the Site of the Proposed Development in Wales.	N/A	N/A
Cyber incident	N	Not considered vulnerable, as this is a predominantly residential development. The retail units may opt to have cyber protection in place when operational, however this will be at the discretion of the unit operators.	N/A	N/A
Disruption of energy supply (oil, gas, electricity)	N	ESB Networks maintain the electricity network in Ireland. Gas Networks Ireland maintain the natural gas network in Ireland.	N/A	Chapter 13 (Material Assets) contains information on energy supply.
Utilities failure (communications)	N	In Ireland, the fixed-line communications market is dominated by Eir, while Eir, Three, and Vodafone own Ireland's mobile telecommunications infrastructure.	N/A	Chapter 13 (Material Assets) contains information on telecommunications.



Utilities failure (water supply)	Y	There have been times when water supply restrictions have been introduced in the Greater Dublin Area in order to avoid water supply failure. Irish Water is responsible for the delivery of water services to the Site of the Proposed Development. Irish Water have produced a chart which outlines what customers can expect from different levels of water restriction. Restrictions include rotational shut offs, low pressures, no supply at night.	Hydrogeology and Water	Chapters 7 (Hydrology) and 13 (Material Assets) contains information on water supply and demand.
Utilities failure (wastewater, sewage)	N	Not considered vulnerable. Irish Water has sole responsibility for the cleaning and maintenance of the public sewer network. Irish Water also operate a network of wastewater treatment plants across Ireland.	N/A	Chapters 7 (Hydrology) and 13 (Material Assets) contains information on wastewater management.
Utilities failure (solid waste)	N	A Construction, Demolition and Waste management Plan has been prepared for the Construction Phase of the Proposed Development and an Operational Waste Management Plan has been prepared for the Operational Phase of the Proposed Development. The Site of the Proposed Development is located in the Eastern-Midlands Waste Region (EMWR). Several waste collection companies operate in the EMWR and the region hosts a number of permitted and licensed waste facilities for management of construction and demolition (C&D), and municipal waste.	N/A	Chapter 13 (Material Assets) contains information on solid waste management.
Industrial accidents (defence, energy, oil and gas refinery, food industry, chemical industry, manufacturing, quarrying, mining)	N	There are no Upper Tier Seveso sites near the Proposed Development. The closest is located approximately 2.25 km from the Proposed Development at Contract & General Warehousing Ltd., Westpoint Business Park, Parslickstown, Navan Road, Dublin 15.	N/A	N/A

## **14.4 Management Plans**

### **14.4.1 Fire Safety and Emergency Response**

The design criteria of the buildings are in accordance with all relevant building and fire safety standards. Smoke ventilation, fire alarms and emergency lighting will be fitted on all buildings and a sprinkler system will be fitted in the apartment buildings. A fire evacuation strategy will be put in place in advance of dwelling occupancy. Fire safety checks and fire drills will be employed by the management company once the Proposed Development is operational.

### **14.4.2 Public Safety Zones**

Public Safety Zones (PSZs) are mapped out around airport runways to protect the public on the ground from possible aircraft crashes in populated area. PSZs are used to prevent inappropriate use of land where the risk to the public is greatest, e.g., by limiting the type and allowable height of buildings and structures within the zones.

Two individual risk factors relating to chance of death by aircraft crash have been assessed in determining appropriate Public Safety Zones (PSZs) at Dublin Airport. The inner PSZ risk value is 1 in 100,000 per year and the outer PSZ risk value is 1 in 1,000,000 per year, for each runway.

The Site of the Proposed Development is located approximately 9.6km to the southwest of Dublin Airport. There are no PSZs directly over the Site of the Proposed Development at Blanchardstown Town Centre. The nearest outer PSZ is an outer PSZ which is located approximately 3 kilometres to the north of the Site of the Proposed Development. The PSZs at Dublin Airport and the location of the Site of the Proposed Development are shown in Figures 14-1 and Figures 14-2.

Based on the PSZs, an aircraft strike disaster is not considered relevant to this Proposed Development.



Figure 2 Dublin Airport - Proposed Public Safety Zones, Existing Runways



Figure 14-1: Dublin Airport Public Safety Zones Existing Runways (Blanchardstown Town Centre Sites B&C are represented by a red dot)

Figure 4.3 Dublin Airport - Proposed Public Safety Zones, Main Existing Runway 10R/28L (West End 10R)

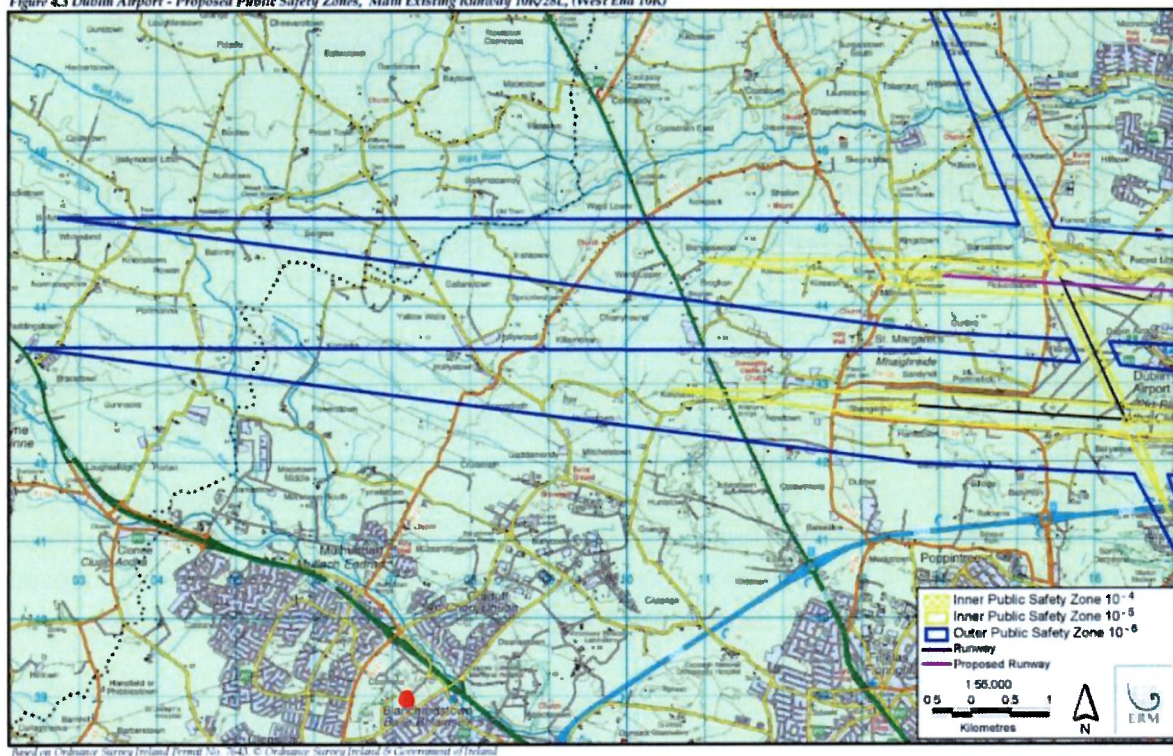


Figure 14-2: Dublin Airport Public Safety Zones Existing Runway 10L/28R (Blanchardstown Town Centre Sites B&C are represented by a red dot)



### 14.4.3 Potential Major Emergency Management Sites

Along with the Upper and Lower Tier Seveso sites, 10 No. potential Major Emergency Management sites have been identified on the Seveso Site Locations Web Map in the Dublin Metropolitan Region (DMR) West, including Blanchardstown Shopping Centre.

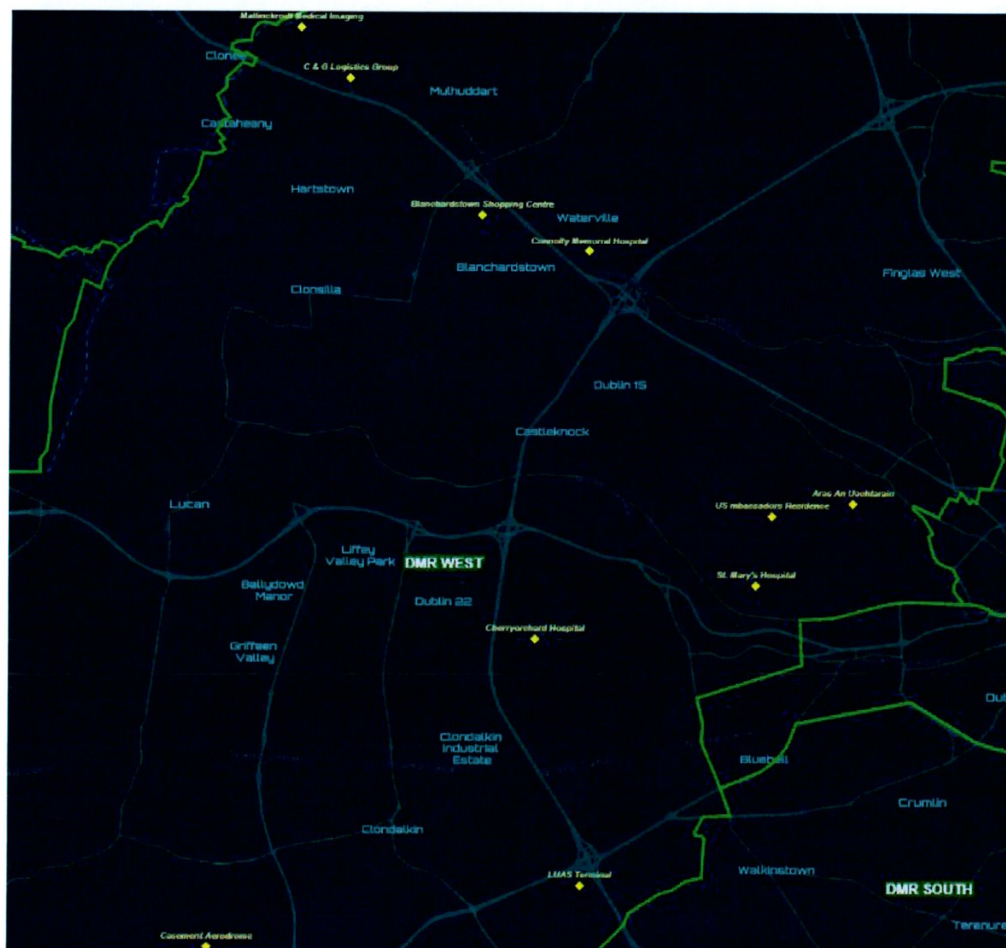


Figure 14-3: Potential Major Emergency Management sites in DMR West (Seveso Sites Ireland)

Under the Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S. I. No. 209 of 2015), the Health Service Executive, An Garda Síochána and the relevant Local Authority or Local Authorities are each designated as a Local Competent Authority (LCA). The three agencies are charged with developing External Emergency Plans (EEPs) for establishments covered by the act. The EEPs are designed to mitigate the effects to the surrounding area of an accident occurring at any of these establishments as part of the planning process, it is incumbent on the three LCAs to consult within the public in regards to the development of the EEPs.

### 14.5 Residual Impacts

Control measures observed for health and safety and environmental management as per relevant code of practices (Code of Practice for Inspecting and Certifying Buildings and Works) and relevant legislation including Building Control Act 1990 (No. 3 of 1990), as amended and



Building Control Regulations 1997, as amended. The residual impacts will be negligible once all control, mitigation and monitoring measures have been implemented.

## 14.6 Monitoring

There is no monitoring required with regards to risk management. All monitoring proposals for the interacting chapters have been detailed in the relevant technical chapters and are included in Chapter 16 Mitigation Measures and Monitoring.

## 14.7 Difficulties Encountered When Compiling

No difficulties were encountered in completing this Risk Chapter.

## 14.8 References

- Chapter 4-13 of Volume 2 of this EIAR
- Environmental Resources Management Ireland Ltd (2005) Public Safety Zones Report
- EPA (2017) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Draft).
- Garda Mapping Section – Seveso Sites Ireland WebMap [Viewed Online 03.02.2022]  
<https://www.arcgis.com/home/item.html?id=a01b5a0a6ff24f10adff30beaa3b6fd0>
- Irish Water Greater Dublin Area water restrictions chart [Viewed Online 03.02.2022]  
<https://www.water.ie/help/supply/water-shortages/>
- Office of Emergency Planning (2020) 'A National Risk Assessment for Ireland 2020' Department of Defence Publication
- Statutory Instrument (SI). No. 296/2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

## 15 INTERACTIONS

### 15.1 Introduction

As a requirement of Planning Regulations and the Environmental Protection Agency's 'Guidelines on information to be contained in Environmental Impact Assessment Reports' (2017), interrelationships between various environmental aspects must be considered when assessing the impact of the Proposed Development, as well as individual significant impacts. The significant impacts of the Proposed Development and the proposed mitigation measures have been detailed in the relevant chapters of this report. However, as with all developments that pose potential environmental impacts, there also exists potential for interactions/interrelationships between the impacts of different environmental aspects. The results may exacerbate or ameliorate the magnitude of impacts. This chapter of the EIAR addresses the interactions between the various environmental factors of the Proposed Development.

The following Section is directed by Article 3 section 1(e) of the EIA Directive. The EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports (Draft, 2017) and Advice Notes for Preparing Environmental Impact Statements (Draft, September 2015) were also considered.

Article 3 of the Directive states:

1. The environmental impact assessment will identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:
  - a) population and human health;
  - b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
  - c) land, soil, water, air and climate;
  - d) material assets, cultural heritage and the landscape;
  - e) the interaction between the factors referred to in points (a) to (d)

### 15.2 Study Methodology

The interactions between impacts on different environmental factors have been addressed throughout this EIAR. Close co-ordination and management with the EIAR team was carried out to ensure that all likely relevant interactions were addressed at the scoping stage of the EIAR and interactions have been adequately assessed.

Following an assessment of the EIAR, a matrix was produced to display where interactions between impacts on different factors have been addressed. This has been carried out by use of chapter headings included in the EIAR and details of any interaction during all phases of the Proposed Development.

### 15.3 Interactions

The following matrix has been produced to show where potential significant interactions between effects on different factors have been addressed, see Table 15-1.

As this EIAR has been prepared by a number of specialist consultants, an important aspect of the EIA process was to ensure that interactions between the various disciplines have been taken into consideration. The principal interactions requiring information exchange between the environmental specialists and the design team are summarised below in Table 15-2 to Table 15-10



Table 15-1: Interactions between Factors

Interaction	4. Population and Human Health	5. Biodiversity	6. Land and Soils	7. Hydrology	8. Air Quality & Climate	9. Noise & Vibration	10. Landscape & Visual Amenity	11. Archaeology, Architecture & Cultural Heritage	12. Material Assets	13. Risk Management
Population and Human Health										
Biodiversity										
Land and Soils										
Hydrology										
Air Quality and Climate										
Noise & Vibration										
Landscape & Visual Amenity										
Archaeology, Architectural and Cultural Heritage										
Material Assets										
Risk Management										

	No Interaction or intra relationship
	Interaction or intra relationship
	N/A



*Table 15-2 Population and Human Health*

Population and Human Health	
Summary	
<p>Chapter 4 of this EIAR, <i>Population and Human Health</i>, details the direct and indirect effects of the Proposed Development on Population and Human Health; and sets out any required mitigation measures where appropriate.</p> <p>The population in the vicinity of the Site of the Proposed Development has been assessed in terms of demography, economic activity and employment, tourism and amenity, landscape and visual, human health and social health.</p>	
Interactions	
Air Quality	<p>Interactions between Air Quality and Population and Human Health have been considered as the Operational Phase has the potential to cause health issues as a result of impacts on air quality from dust nuisances and potential traffic derived pollutants. However, the mitigation measures employed at the Proposed Development will ensure that all impacts are compliant with ambient air quality standards and human health will not be affected. The Air Quality and Climate Chapter notes that the impact of the Proposed Development on air quality and climate is predicted to be negligible with respect to the Operational Phase in the long term. Furthermore, traffic-related pollutants which may affect Population &amp; Human Health have been deemed as negligible, therefore are not expected to have a significant impact on population and human health.</p>
Hydrology	<p>Hydrology has been fully assessed in Volume 2, Chapter 7 of this EIAR. No public health issues associated with the water (hydrology and hydrogeology) conditions at the Site have been identified for the Construction Phase or Operational Phase of the Proposed Development.</p> <p>Appropriate industry standards and health and safety legislative requirements will be implemented during the Construction Phase that will be protective of site workers.</p>
Noise	<p>Noise is fully assessed in Volume 2, chapter 10. The nearest noise sensitive receptors are 190m from the Site. The impact assessment of noise and vibration has concluded that additional noise associated with the operation of the facility will not create any noise nuisance beyond the Site boundary.</p> <p>The Proposed Development Site is suitable for mixed use development subject to the provision of the noise control recommendations as outlined</p>

	<p>within the Noise chapter of this report. Mitigation and monitoring measures will be incorporated to further reduce the potential for noise generation from the Proposed Development.</p> <p>No human health impacts are anticipated as a result of noise during the Operational Phase of the Proposed Development.</p>
<b>Landscape</b>	<p>There are no protected views, rights of way or planned pieces of strategic infrastructure or any important tourist sites effected in any way by the Proposed Development. Overall, it is not considered there will be any significant long-term impacts on the Landscape and Visual as a result of the Proposed Development.</p>
<b>Traffic</b>	<p>There can be a significant interaction between population and human health and traffic. This is due to traffic-related pollutants that may arise. The Proposed Development will have no significant impact on traffic volumes in the local network, and therefore traffic will not result in any significant impact on Population and Human Health.</p>
<b>Conclusions</b>	
<p>The Proposed Development is considered to have a slight positive impact during both the Construction and Operational Phase of the development, both directly and indirectly, to the local economy and employment.</p> <p>Adverse impacts on Population and Human Health are not expected to occur and any potential interactions with impacts of other environmental aspects, as outlined in this EIAR, are insignificant.</p>	

Table 15-3 Biodiversity

Biodiversity	
Summary	
Chapter 5 of this EIAR, <i>Biodiversity</i> , details the direct and indirect effects of the Proposed Development on the local flora and fauna; and sets out any required mitigation measures where appropriate.	
Interactions	
Hydrology	The receiving surface water drainage network links to the River Tolka and so potential impacts to ecological receptors downstream of the Site are considered. Again, the potential for the construction phase to impact on receiving waterbodies and ecology in the vicinity of the Site is addressed via the mitigation measures proposed in these chapters.
Land and Soils	In terms of Land and Soils, there is overlap with the biodiversity chapter in that the potential impacts of the construction works, through excavation, construction etc., have the potential to adversely affect the receiving environment; both geological and ecological. The mitigation measures in both chapters overlap somewhat as they deal with protecting the receiving environment from the construction works e.g., protecting waterbodies and drains from pollution and sedimentation.
Landscape and Visual	The proposed landscaping of the Site interacts with its biodiversity and ecology; through the changes that will occur to the existing habitats and flora at the Site. The landscaping proposals will entail losses and contributions in terms of vegetation at the Site, which in turn will affect the ecology of the Site. The Site in its current condition is not of high ecological value, and the proposed landscaping will not result in significant adverse effects in this regard.
Conclusions	
A suite of mitigation measures have been outlined and provided all these mitigation measures are implemented in full, and remain effective throughout the lifetime of the Development, no significant negative impacts on the local ecology or on any designated nature conservation sites are expected from the Proposed Development.	



Table 15-4 Land and Soil

Land and Soil	
Summary	
<p>Chapter 6 of this EIAR, <i>Land and Soil</i>, details the direct and indirect effects of the Proposed Development on the local land, soils, and geology; and sets out any required mitigation measures where appropriate.</p> <p>There are a number of potential pollutants associated with the Construction Phase of the Proposed Development which have the potential to impact on the environment with respect to land, soils and geology such as:</p> <ul style="list-style-type: none"> <li>• Importation of potentially contaminated materials for infill activities during the Construction Phase;</li> <li>• Potential release of cementitious material during construction works for foundations, pavements and infrastructure;</li> <li>• Accidental release of deleterious materials including fuels and other materials being used on-site during the Construction Phase; and</li> <li>• Potential for uncontrolled release of (i.e., fuels from vehicles on-site), through failure or rupture of the drainage system during the Operational Phase.</li> </ul>	
Interactions	
<b>Population and Human Health</b>	<p>No public health issues associated with the land, soil, geology conditions at the Site have been identified for the Construction Phase or Operational Phase of the Proposed Development.</p> <p>Appropriate industry standard and health and safety legislative requirements will be implemented during the Construction Phase of the Proposed Development that will be protective of site workers.</p> <p>Specific issues relating to Public Health associated with the Proposed Development are set out in Chapter 4 of this EIAR.</p>
<b>Hydrology and Hydrogeology</b>	<p>An assessment of the potential impact of the Proposed Development on the hydrological and hydrogeological environment is included in Chapter 7 of this EIAR. Procedures for protection of receiving water environment are set out in Chapter 7 of this EIAR.</p>



<b>Material Assets: Waste and Traffic</b>	The Proposed Development will include the removal off-site of up to 7,450m <sup>3</sup> surplus soil and stone for reuse/recovery/disposal. An assessment of the potential impact of the Proposed Development on the material assets including built services, infrastructure and waste management is included in Chapter 13 of this EIAR.
<b>Biodiversity</b>	An assessment of the potential impacts of the Proposed Development on the Biodiversity of the Proposed Development Site, with emphasis on habitats, flora and fauna which may be impacted as a result of the Proposed Development are included in Chapter 5 of this EIAR. It also provides an assessment of the impacts of the Proposed Development on habitats and species, particularly those protected by national and international legislation or considered to be of particular conservation importance and proposes measures for the mitigation of these impacts.
<b>Landscape and Visual</b>	The landscape at the Proposed Development Site will undergo a change from commercial land use (i.e., carparking) to a mixed use residential (i.e., apartment blocks) and retail / commercial land use (i.e., retail shops, office use, gym, restaurant or café) with extensive landscaping. An assessment of the potential impact of the Proposed Development on the receiving landscape is included in Chapter 11 of this EIAR.
<b>Air Quality and Climate</b>	The excavation of soils across the Proposed Development Site and the temporary stockpiling of soils pending reuse or removal off-site has the potential to generate nuisance impacts (i.e., dust). An assessment of the potential impact of the Proposed Development on air quality and climate are included in Chapter 8 of this EIAR.
<b>Conclusions</b>	
<p>The mitigation measures outlined the CEMP and CDWMP and the respective Chapters outlined above, will ensure that there will be no significant adverse impacts on the receiving land, soil and geology associated with the Construction Phase and the Operational Phase of the Proposed Development. The Construction Environmental Management Plan (CEMP) will be reviewed and updated, as necessary, by the contractor once appointed and prior to any construction activities commencing on-site.</p> <p>The Proposed Development will have an overall 'imperceptible' impact on the receiving land, soil and geological environment. There will be a 'positive' and 'slight' impact on the soil quality associated with the excavation of made ground, including some soils impacted with low levels of anthropogenic contamination (i.e., petroleum hydrocarbons), and removal offsite during the Construction Phase of the Proposed Development. The potential impacts on the underlying soils are unavoidable, however the Proposed Development is permitted in principle under the current 'MC' Major Town Centre Technology zoning objective.</p>	

Table 15-5 Hydrology and Hydrogeology

Hydrology and Hydrogeology	
Summary	
<p>Chapter 7 of this EIAR, provides an assessment of the potential impacts of the Proposed Development on hydrology and hydrogeology and sets out any required mitigation measures where appropriate.</p> <p>There are a number of potential pollutant linkages associated with the Proposed Development which have the potential to impact on the environment with respect to hydrology and hydrogeology, such as:</p> <ul style="list-style-type: none"> <li>• Potential for release of sediment or other potentially contaminating compounds to public surface water / foul sewer during groundwater dewatering;</li> <li>• Potential release of cementitious material during the construction of foundations, pavements, and other structures;</li> <li>• Accidental release of deleterious materials including fuels and other materials being used on-site, through the failure of secondary and tertiary containment or a materials handling accident; and</li> <li>• Potential for uncontrolled release of (i.e., fuels from vehicles on-site), through failure or rupture of the drainage system during the Operational Phase.</li> </ul>	
Interactions	
<b>Population and Human Health</b>	<p>No public health issues associated with the water (hydrology and hydrogeology) conditions at the Proposed Development Site have been identified for the Construction Phase or Operational Phase of the Proposed Development.</p> <p>Appropriate industry standard and health and safety legislative requirements will be implemented during the construction phase that will be protective of site workers.</p> <p>It is noted that specific issues relating to Public Health associated with the Proposed Development are set out in Chapter 4 of this EIAR.</p>
<b>Material Assets: Water</b>	<p>An assessment of the potential impact of the Proposed Development on the Material Assets including built services, infrastructure, traffic, and waste management has been set out in Chapter 13 of this EIAR. Any discharges to the public foul sewer and water supply to the Proposed Development will be under consent from Irish Water.</p>
<b>Land, Soil, Geology and Hydrogeology</b>	<p>An assessment of the potential impact of the Proposed Development on the existing land, soils and geological environment during the Operational</p>

	Phase of the Proposed Development is set out in Chapter 6 Land, Soil and Geology.
<b>Biodiversity</b>	An assessment of the potential impacts of the Proposed Development on the Biodiversity of the Site, with emphasis on habitats, flora and fauna which may be impacted a result of the Proposed Development are included in Chapter 5 of this EIAR. It also provides an assessment of the impacts of the Proposed Development on habitats and species, particularly those protected by national and international legislation or considered to be of particular conservation importance and proposes measures for the mitigation of these impacts.
<b>Conclusions</b>	
<p>The mitigation measures outlined the CEMP and CDWMP and the respective Chapters outlined above, will ensure that there will be no significant adverse impacts on the receiving land, soil and geology associated with the Construction Phase and the Operational Phase of the Proposed Development. . The Construction Environmental Management Plan (CEMP) will be reviewed and updated, as necessary, by the contractor once appointed and prior to any construction activities commencing on-site.</p> <p>The proposed surface water management strategy incorporates a number of measures incorporated in the overall drainage design including green roofs / blue roofs, permeable paving, bioretention areas, road gullies draining via tree pits, Hydrobrake flow control device / associated attenuation storage and full retention fuel / oil separators that will contribute to treatment of water quality through removal of metal, hydrocarbon and suspended solids that may be entrained in surface water runoff at the Proposed Development Site. It is considered that the SuDS drainage scheme for the Proposed Development will result in an overall positive impact on receiving surface water quality.</p> <p>Overall, there will be no significant adverse impacts as a result of the Proposed Development on the receiving groundwater and surface water environment. The Proposed Development will have an overall 'imperceptible' impact on the receiving hydrological and hydrogeological environment.</p>	



Table 15-6 Air Quality and Climate

Air Quality and Climate	
Summary	
<p>Chapter 8 of this EIAR, <i>Air Quality and Climate</i>, provides an assessment of the potential impacts of the Proposed Development on ambient air quality and climate, and sets out appropriate mitigation measures where necessary.</p> <p>The greatest potential effect on air quality associated with the Proposed Development is from dust and traffic-related air emissions. The primary sources of dust identified include soil excavation works, demolition, bulk material transportation, loading and unloading, stockpiling materials, cutting and filling, and vehicular movements (HGVs and on-site machinery).</p> <p>Operational traffic will use regional and local roads to access the facility with potential increases of traffic flow on some roads and subsequent associated emissions of VOCs, nitrogen oxides, sulphur dioxides and increased particulate matter concentrations.</p>	
Interactions	
<b>Population and Human Health</b>	<p>Interactions between Air Quality and Population and Human Health have been considered as the Operational Phase has the potential to cause health issues as a result of impacts on air quality from dust nuisances and potential traffic derived pollutants. However, the mitigation measures employed at the Proposed Development will ensure that all impacts are compliant with ambient air quality standards and human health will not be affected. Furthermore, traffic-related pollutants have been considered and determined as negligible, therefore air quality impacts from the Proposed Development are not expected to have a significant impact on population and human health.</p>
<b>Traffic</b>	<p>There can be a significant interaction between air quality, climate and traffic. This is due to traffic-related pollutants that may arise. In the current assessment, traffic derived pollutants which may affect Air Quality and Climate have been deemed as negligible. Therefore, the impact of the interaction between air quality and climate is insignificant.</p>
Conclusions	
<p>Appropriate mitigation measures have been recommended and will be implemented at the Site in order to minimise the risk of dust emissions arising during the Construction Phase. These mitigation measures have been outlined in the Construction Environmental Management Plan (CEMP) (DBFL Consulting Engineers) for the Site, and provided such measures are adhered to, it is not considered that significant air quality impacts will occur.</p>	



Operational traffic will use regional and local roads to access the facility with potential increases of traffic flow on some roads and subsequent associated emissions of VOCs, nitrogen oxides, sulphur dioxides and increased particulate matter concentrations. As per the Traffic and Transport Assessment (Section 12.1), an Air Quality Assessment is not required and it is therefore considered unlikely for significant air quality impacts to occur as a result of increased traffic flow.

Table 15-7 Noise and Vibration

Noise and Vibration	
Summary	
<p>Chapter 10 of this EIAR, <i>Noise and Vibration</i>, provides a description and assessment of the likely impact of the proposed activities from noise, and sets out appropriate mitigation measures where necessary.</p> <p>The primary noise impacts associated with this Proposed Development is noise due to construction activities and vehicular traffic. The noise-generating activities associated with the Site are as follows:</p> <ul style="list-style-type: none"> <li>• Site clearance, including excavation works;</li> <li>• Building construction works;</li> <li>• Trucks entering and exiting the Site.</li> </ul>	
Interactions	
<b>Population and Human Health</b>	<p>The impact assessment of noise and vibration has concluded that additional noise associated with the operation of on-site machinery will be intermittent and will not create any major negative impacts beyond the Site boundary. Mitigation and monitoring measures will be incorporated to further reduce the potential for noise generation from the Proposed Development. No human health impacts are anticipated as a result of noise from the Proposed Development.</p>
<b>Traffic</b>	<p>The Proposed Development will have no significant impact on traffic volumes in the local network, and therefore traffic will not result in any significant increases of noise at sensitive receptors.</p>
<b>Biodiversity</b>	<p>It is not considered that the Noise and Vibration effects of the Proposed Development will have an adverse impact on biodiversity in the local area. While the proposed Construction Phase will result in a temporary increase in noise and vibration, it is considered that this would not cause a significant disturbance to the local fauna including birds due to the existing established urban environment.</p>
Conclusions	
<p>The Construction Phase has the greatest potential for noise and vibration impacts on the surrounding environment; however this phase will be of short-term impact. A detailed construction programme has not been developed and the Proposed Development is to be constructed in two stages to minimise any potential impacts.</p>	

During the Operational Phase of the development, no significant sources of noise or vibration are expected. No traffic routes are predicted to experience increases of more than 25% in total traffic flows during the Operational Phase. Due to the urban location of the Site, it is highly unlikely that noise generated by the Construction Phase will be audible to an extent which would result in significant adverse impacts at the nearest noise sensitive locations. The impact of noise from operational traffic will be unnoticeable and will not have a negative impact on any Noise Sensitive Locations (NSLs) or biodiversity in the local area.

Table 15-8 Landscape and Visual Assessment

Landscape and Visual Assessment	
Summary	
Chapter 11 of the EIAR, <i>Landscape and Visual Assessment</i> , provides a description and assessment of the likely impact of the Proposed Development on the landscape and visual amenities of the area.	
Interactions	
Population	It is not considered that the Proposed Development by virtue of its visual appearance and in the context of the proposed zoning of the Site of the Proposed Development and the urban and industrial nature of the surrounding landscape, will cause any impacts on the residential local population.
Biodiversity	The proposed landscaping of the Site interacts with its biodiversity and ecology through the changes that will occur to the existing habitats and flora at the Site. The landscaping proposals will entail losses and contributions in terms of vegetation at the Site, which in turn will affect the ecology of the Site. The Site in its current condition is not of high ecological value, and the proposed landscaping will not result in significant adverse effects in this regard. It is noted that, although largely being retained, a break in the western hedgerow will be required in its southernmost point; to facilitate an internal access roadway to the major town centre lands to the south. This will be offset by the proposed tree, hedge and shrub planting to be carried out at the Site.
Archaeology	As there are no known archaeological or architectural remains found during the desk top survey as well as the walkover survey, it is not predicted that any changes in landscape or visual impact will affect in any way the archaeology of the area. It is noted that, although largely being retained, a break in the western hedgerow will be required in its southernmost point; to facilitate an internal access roadway to the Major Town Centre zoned lands in use by a Sports & Leisure Club. This hedgerow is an historic hedgerow and is of cultural heritage significance. This is discussed further in Chapter 12 of this EIAR.
Conclusions	
Subject to implementation of all mitigation measures detailed in Chapter 12, there will be no negative residual impacts upon the landscape and visual resources.	



*Table 15-9 Archaeology and Cultural Heritage*

Archaeology and Cultural Heritage	
Summary	
Chapter 12 of the EIAR, <i>Archaeology and Cultural Heritage</i> , provides information on the known architectural, archaeological and cultural heritage sites in the study area in relation to Proposed Development at Blanchardstown Town Centre.	
Interactions	
<b>Landscape and Visual</b>	It is not predicted that any changes in landscape or visual amenities will significantly affect the archaeology and cultural heritage of the area. The vegetation present on the southern boundary is typical of an historic hedge-row boundary. This hedgerow will be retained as much as possible but a break in the hedgerow will have to be created to accommodate the new proposed access road.
Conclusions	
Subject to implementation of all mitigation measures detailed in Chapter 11, there will be no negative residual impacts upon the archaeological or cultural heritage resource.	

*Table 15-10 Material Assets, Traffic, Waste and Utilities*

Material Assets, Traffic, Waste and Utilities	
Summary	
Chapter 13 of the EIAR, <i>Material Assets</i> , provides an assessment of the potential impacts of the Proposed Development on Material Assets including traffic, built services and infrastructure.	
Interactions	
Land and Soil	In the event of spillage/ leaks from waste storage areas, this could negatively impact on the land and soil. Potential impacts on land and soils are addressed in Chapter 6.
Air Quality	In the event of nuisance dust being created during the Construction Phase, this could impact on local settlement and human health. Potential impacts on Population and Human Health, and Air Quality are addressed in Chapters 4 and 8 respectively.
Hydrology and Hydrogeology	<ul style="list-style-type: none"> <li>• Surface and Ground Water: Surface water runoff from Site may become contaminated during construction activities. This could negatively impact on the surface water and groundwater quality. Potential impacts from the Construction Phase on local hydrology and surface and ground water are addressed in Chapter 7, Hydrology.</li> <li>• Foul Water: There may be some disturbances to the local foul water network during the Construction Phase, however the impact is considered to be temporary and not significant.</li> </ul>
Conclusions	
Subject to implementation of all mitigation measures, there will be no negative residual impacts upon the Material Assets, Traffic, Waste and Utilities.	

## 15.4 References

EIAR Chapters 4 to 13 inclusive.

## **16 MITIGATION AND MONITORING MEASURES**

### **16.1 Introduction**

This EIAR has assessed the impacts and resulting effects likely to occur as a result of the Proposed Development on the various aspects of the receiving environment.

The Proposed Development will be operated in a manner that will ensure that the potential impacts on the receiving environment are avoided where possible. In cases where impacts or potential impacts have been identified, mitigation measures have been proposed to reduce the significance of particular impacts. These mitigation recommendations are contained within each chapter exploring specific environmental aspects.

This chapter of the EIAR collates and summarises the mitigation commitments made in Chapter 4 to Chapter 13.

### **16.2 Summary of Mitigation Measures**

#### **16.2.1 Population and Human Health**

##### **16.2.1.1 Construction Phase**

###### **16.2.1.1.1 Mitigation**

During the Construction Phase of this Proposed Development any Government or HSE guidelines that are applicable at the time, will be adhered to in relation to social distancing, cough and sneeze etiquette, face masks and hand washing. Appropriate welfare facilities will be provided at the facility. Frequently touched objects and surfaces such as door handles, machine steering wheels and gear levers will be cleaned and disinfected frequently.

The Governments 'Work Safely Protocol' and the Construction Industry Federation 'Back to Work Resource Pack' will be adhered to. All construction staff will complete the relevant HSA Return to Work Safely Online Courses prior to commencing work on-site.

No specific mitigation measures are required during the Construction Phase of the Proposed Development in relation to population and settlements, given the lack of direct effects resulting from the Proposed Development. However, where required, mitigation measures in relation to air emissions (dust), noise, traffic, waste etc. are identified in their respective chapters in this EIA Report.

###### **16.2.1.1.2 Monitoring**

No specific monitoring measures are proposed or required in relation to Population and Human Health for the Construction Phase of the Proposed Development.

Monitoring activities proposed for the Construction Phase in accordance with the CEMP submitted with the planning application. The Construction Environmental Management Plan (CEMP) will be reviewed and updated, as necessary, by the contractor once appointed and before any construction works commence on-site.



The monitoring of construction dust during the Construction Phase of the Proposed Development is recommended to ensure that impacts on air quality are not experienced beyond the Site boundary and human health is not affected.

A full traffic assessment has been completed as part of Chapter 13 (Material Assets) and a Noise Impact Assessment as part of Chapter 10 (Noise and Vibration). Please refer to these specific Chapters for any proposed monitoring.

#### **16.2.1.2 Operational Phase**

##### **16.2.1.2.1 Mitigation**

All appropriate Government guidelines published to protect against the spread of COVID-19 that are in force at the time, will be adhered to during the operational phase of the Proposed Development. These guidelines may relate to social distancing, cough and sneeze etiquette, face masks and hand washing. Appropriate welfare facilities will be provided at the facility. Frequently touched objects and surfaces such as door handles, machine steering wheels and gear levers will be cleaned and disinfected frequently.

All workers employed during the operational phase of the Proposed Development will comply with the relevant HSE guidelines and any Government protocols that will be in place at that point in time in relation to Covid-19.

No specific mitigation measures are required in relation to population and settlements, given the lack of direct effects resulting from the Proposed Development. However, where required, mitigation measures in relation to air emissions, noise, traffic etc. are identified in their respective chapters in this EIA Report.

##### **16.2.1.2.2 Monitoring**

No specific monitoring measures are required in relation to population and settlements, given the lack of direct effects resulting from the proposed development. However, where required, monitoring in relation to air emissions, water, noise and traffic are identified in their respective chapters in this EIA Report.

## 16.2.2 Biodiversity

### 16.2.2.1 Construction Phase

#### 16.2.2.1.1 Mitigation

##### ***Mitigation 1: Timing of Vegetation Clearance***

To ensure compliance with the Wildlife Act 1976 as amended, the removal of areas of vegetation will not take place within the nesting bird season (March 1<sup>st</sup> to August 31<sup>st</sup> inclusive) to ensure that no significant impacts (i.e., nest/egg destruction, harm to juvenile birds) occur as a result of the Proposed Development. Where any removal of vegetation within this period is deemed unavoidable, a qualified Ecologist will be instructed to survey the vegetation prior to any removal taking place. Should nesting birds be found, then the area of habitat in question will be noted and suitably protected until the Ecologist confirms the young have fledged, or a derogation licence is obtained from the NPWS.

The following table provides guidance for when vegetation clearance is permissible. Information sources include the British Hedgehog Preservation Society's *Hedgehogs and Development* and The Wildlife (Amendment) Act, 2000.

The preferred period for vegetation clearance is within the months of September and October as per the above table. Vegetation should be removed in sections working in a consistent direction to prevent entrapment of protected fauna potentially present (e.g., Hedgehog). Where this seasonal restriction cannot be observed, a check for active roosts and nests will be carried out immediately prior to any Site clearance by an appropriately qualified ecologist /ornithologist and repeated as required to ensure compliance with legislative requirements.

##### ***Mitigation 2: Good Site Hygiene***

As best-practise all construction-related rubbish on site e.g., plastic sheeting, netting etc. should be kept in a designated area and kept off ground level so as to prevent small mammals such as hedgehogs from entrapment and death.

Table 5-5 above should be referred to when planning any clearance of scrub and hedgerow/treeline habitats, to reduce the potential for mortality to hibernating small mammal should they be present onsite.

**Table 16-1: Seasonal restrictions on vegetation removal. Red boxes indicate periods when clearance works are not permissible.**

Ecological Feature	January	February	March	April	May	June	July	August	September	October	November	December
Breeding Birds	Vegetation clearance permissible		<u>Nesting bird season</u> No clearance of vegetation or works to relevant structures permitted unless confirmed to be devoid of nesting birds by an ecologist.						Vegetation clearance permissible			
Hibernating mammals (namely Hedgehog, excluding bats)	<u>Mammal hibernation season</u> No clearance of vegetation or works to relevant structures permitted unless confirmed to be devoid of hibernating mammals by an ecologist.		Vegetation clearance permissible								<u>Mammal hibernation season</u> No clearance of vegetation or works to relevant structures permitted unless confirmed to be devoid of hibernating mammals by an ecologist.	
Bats	Tree felling to be avoided								Preferred period for tree-felling		Tree felling to be avoided	

### **Mitigation 3: Noise Control**

A number of measures will be included in the CEMP as set out in *BS 5228-1: A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise*, that will be put in place during the Construction Phase of the Proposed Development. These will ensure that the level of noise caused by the proposed works will be controlled/reduced where possible so as to minimise the potential disturbance impact on local bird species.

These measures will include but are not limited to:

- Selection of plant with low inherent potential for generating noise.

- Avoid unnecessary revving of engines and switch off plant items when not required.
- Keep plant machinery and vehicles adequately maintained and serviced.
- Proper balancing of plant items with rotating parts.
- Keep internal routes well maintained and avoid steep gradients.
- Minimise drop heights for materials or ensure a resilient material underlies.
- Use of alternative reversing alarm systems on plant machinery.
- Where noise becomes a source of resonating body panels and cover plates, additional stiffening ribs or materials should be safely applied where appropriate.
- Limiting the hours during which site activities likely to create high levels of noise are permitted.
- Appointing a site representative responsible for matters relating to noise.
- Monitoring typical levels of noise during critical periods and at sensitive locations.

These measures will ensure that any noise disturbance to local birds or any other fauna species in the vicinity of the Site of the Proposed Development will be reduced to a minimum.

#### ***Mitigation 4: Pre-felling Bat Surveys***

It is noted that, although largely being retained, a break in the western hedgerow will be required in its southernmost point; to facilitate an internal access roadway to the Major Town Centre zoned lands in use by a Sports & Leisure Club. It is recommended that prior to the removal of any trees along this western Site boundary treeline/hedgerow, a pre-felling bat survey of any trees to be removed should be conducted by a suitably qualified specialist. Should bats be present, a derogation will be required from National Parks and Wildlife Service (NPWS) before such trees can be removed. (felling of a confirmed bat roost without a licence is an offence under the Wildlife Act 1976 as Amended).

#### ***Mitigation 5: Construction Phase Surface Water Management***

To prevent contaminated construction related surface waters entering existing surface water drains within or near the Site, the measures listed below will be put in place. These measures will be included as part of the contractor's Construction Environmental Management Plan (CEMP).

- Prior to construction commencing, all storm drains and curb inlets etc., within the Site area, and in close proximity, will be identified by the contractor and suitably protected from potential sediment/contaminant input. This can be accomplished by using temporary storm drain filters that come in a variety of forms e.g., porous fabric barriers such as curb inlet filters and drain guards (e.g., <https://ssienviroguide.com/product/drain-guard/>). Other makes are available).
- The above drain protection measures will be checked, cleaned and maintained for efficacy throughout the Construction Phase, with checks carried out daily for damage or sediment loading and cleaning carried out as required.



- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site.
- Pumped concrete will be monitored to ensure there is no accidental discharge and will be carried out in dry weather.
- Mixer washings are not to be discharged into surface water drains and will be collected and disposed of at a suitably licenced facility.
- Debris and sediment captured by vehicle wheel washes will be collected and disposed off-site at a licensed facility.
- All oils, fuels and other chemicals will be stored in a secure bunded hardstand area (within the construction compound) and away from any drains or surface water inlets.
- Refuelling and servicing of construction machinery will take place in a designated hardstanding area (within the construction compound) which is also remote from any surface water inlets (when not possible carry out such activities off-site).
- A response procedure will be put in place to deal with any accidental pollution events, spillage kits will be available and construction staff will be inducted with regard to the emergency procedures/ use of spill kits.

#### **16.2.2.1.2 Monitoring**

As mentioned, a pre-felling bat survey will be carried out by a suitably qualified bat specialist prior to the felling of any trees along the western boundary treeline. Should bats be present, a derogation will be acquired from NPWS before such trees can be removed (felling of a confirmed bat roost without a licence is an offence under the Wildlife Act 1976 as Amended).

#### **16.2.2.2 Operational Phase**

##### **16.2.2.2.1 Mitigation**

##### ***Mitigation 6: Bat Friendly Lighting***

There is little to know suitable bat foraging habitat at the Site of the Proposed Development in its current condition (largely hardstanding carparking areas). Bats could potentially forage along the western hedgerow/treeline. This feature is largely being retained in the project design and thus impacts to bats are not envisaged. As a precautionary measure to protect this feature, operational site lighting will be designed to face away from the treeline and limit any lightspill onto same.

##### ***Habitat enhancement: Swift Boxes***

It is recommended that Swift Boxes or Bricks are incorporated into the Proposed Development where possible. The incorporation of Swift Boxes or Bricks would help recover the declining swift population, which are now Red Listed in Ireland (Gilbert et al., 2021). The following recommendations are extracted from "Saving Swifts" by Birdwatch Ireland .

Swift bricks/boxes:

- should be constructed of long-lasting material and securely fixed in position.
- should be erected at least five metres above ground level

- should be erected in sheltered cool areas out of the sun, or under an overhang and /or under the eaves. Bricks can be placed at any aspect, however, as they tend not to overheat the way that externally fitted boxes can.
- should have a clear airspace in front for access
- should be grouped (side by side in rows) as swifts are colony nesters
- should avoid sites which can be accessed by predators- cats, squirrels, magpies, rats.
- should avoid sites near plate glass windows because they are a known collision hazard for birds.
- should not be placed directly above ledges or other obstructions. Swifts drop before taking flight and can collide with obstacles below the nest entrance.
- should not be one above the other.
- should not be near spotlights or later fit spotlights near them.

It is advised to install a Swift calling system to attract Swifts and encourage them to take up residence at a new site. The placement and location of swift boxes/bricks should be decided based on consultation with a suitably qualified ecologist/ornithologist.

In a scenario where surface water drains are not protected during the Construction Phase, and a large fuel/chemical spill were to occur, hydrocarbons could enter the receiving drainage network and subsequently the River Tolka; leading to impacts on fish species therein.

#### **16.2.2.2 Monitoring**

As mentioned, a pre-felling bat survey will be carried out by a suitably qualified bat specialist prior to the felling of any trees along the western boundary treeline. Should bats be present, a derogation will be acquired from NPWS before such trees can be removed (felling of a confirmed bat roost without a licence is an offence under the Wildlife Act 1976 as Amended).

## **Land and Soils**

### **16.2.2.3 Construction Phase**

#### **16.2.2.3.1 Mitigation**

A Construction Environmental Management Plan (CEMP), Construction Demolition Waste Management Plan (CDWMP) have been prepared as part of this application with detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The appointed Contractor will review and update the Construction Environmental Management Plan (CEMP), as necessary, to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The CEMP and CDWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

#### **Exportation of Soil**

Prior to excavation, a detailed review of the final cut and fill model will be carried out to confirm cut and fill volumes. Detailed quantities of material to be excavated will be verified through accurate survey techniques and detailed in the CDWMP (Enviroguide Consulting, March 2022) which will be further developed by the appointed Contractor in advance of works commencing.

All surplus materials and any waste will be removed off-site in accordance with the requirements outlined in the CDWMP (Enviroguide Consulting, 2022) and will be managed in accordance with all legal obligations.

The removal of soils and materials off-site for recovery / disposal will be undertaken in accordance with the soil waste classification presented in the O' Callaghan Moran & Associates, September 2021 waste classification report and where appropriate reused as a by-product in accordance with Article 27 of the European Communities (Waste Directive) Regulations 2011 (SI No. 126 of 2011) as amended.

It will be the Contractor's responsibility to either; possess a waste collection permit or, to engage specialist waste service contractors who will possess the requisite authorisations, for the collection and movement of waste off-site. Material will be brought to a facility which currently holds an appropriate waste facility permit or licence for the specified waste types. Accordingly, there will be no impact on any off-site destination site associated with the Construction Phase of the Proposed Development.

Materials and waste will be documented prior to leaving the Proposed Development Site. All information will be entered into a waste management register kept on the Proposed Development Site.

#### **Reuse of Soil and Stone**

The reuse of excavated soil and stone for the Proposed Development (i.e., for landscaping) will be subject to testing for contaminants, invasive species and other anthropogenic inclusions and assessment of the suitability for use in accordance with engineering and environmental specifications for the Proposed Development.

### **Management and Control of Soils and Stockpiles**

Segregation and storage of soils for re-use on-site or removal off-site and waste for disposal off-site will be segregated and temporarily stored on-site pending removal or for reuse on-site in accordance with the CEMP and the CDWMP.

Where possible, stockpiling of soil and stone on-site will be avoided. However, in the event that stockpiling is required, stockpiled materials, pending removal off-site or reuse on-site, will be located in sheltered regions of the Proposed Development Site and away from the location of any sensitive receptors.

For any excavated material identified for removal off-site, while assessment and approval of acceptance at a destination reuse site or waste facility is pending, excavated soil for recovery/disposal shall be stockpiled as follows:

- A suitable temporary storage area shall be identified and designated;
- All stockpiles shall be assigned a stockpile number;
- Soil waste categories will be individually segregated; and all segregation, storage & stockpiling locations will be clearly delineated on the Proposed Development Site drawings;
- Erroneous pieces of concrete shall be screened from the stockpiled soils and segregated separately;
- Soil stockpiles will be sealed to prevent run-off from the stockpiled material generation and/or the generation of dust; and
- Any waste that will be temporarily stored / stockpiled only impermeable surface high-grade polythene sheeting, hardstand areas or skips to prevent cross-contamination of the soil below or cross contamination with soil.

The location and moisture content of storage piles are important factors which determine their potential for dust emissions.

- Overburden material will be protected from exposure to wind by storing the material in sheltered regions of the Proposed Development Site; and
- Regular watering will take place to ensure the moisture content is high enough to increase the stability of the soil and thus suppress dust.

Waste will be stored on-site, including concrete, asphalt and soil stockpiles, in such a manner as to:

- Prevent environmental pollution (bundled and/or covered storage, minimise noise generation and implement dust/odour control measures, as may be required);
- Maximise waste segregation to minimise potential cross contamination of waste streams and facilitate subsequent re-use, recycling and recovery; and

Prevent hazards to site workers and the general public during construction phase (largely noise, vibration and dust)



## **Import of Fill Materials**

Contract and procurement procedures will ensure that all imported materials (e.g., aggregates and topsoil) required for the Proposed Development will be sourced from reputable suppliers operating in a sustainable manner and in accordance with industry conformity/compliance standards and statutory obligations. The importation of aggregates will be subject to management and control procedures to ensure the suitability for use in accordance with engineering and environmental specifications for the Proposed Development. Therefore, any unsuitable material will be identified prior to unloading / placement on-site.

## **Concrete Works**

Pre-cast concrete will be used where technically feasible to meet the design requirements for the Proposed Development. Where cast-in-place concrete is required, all work will be carried out to avoid any contamination of the receiving geological environment through the use of appropriate design and methods implemented by the appointed Contractor and in accordance with industry standards.

All ready-mixed concrete shall be delivered to the Proposed Development Site by truck. Concrete mixer trucks will not be permitted to wash out on-site with the exception of cleaning the chute into a container which will then be emptied into a skip for appropriate compliant removal off-site.

## **Handling of Fuels and Hazardous Materials**

Any diesel, fuel or hydraulic oils stored on-site will be stored in bunded storage tanks in a dedicated impermeable area a least 30m from watercourses. The bunded area will have a volume of at least 110% of the volume of the stored materials as per best practice guidelines (Enterprise Ireland, BPGCS005) and will be properly secured against unauthorised access or vandalism. There will be clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage.

Waste oils and hydraulic fluids will be collected in bunded containers and removed from the Proposed Development Site for disposal or re-cycling.

A procedure will be drawn up which will be adhered to during refuelling of on-site vehicles. This will include the following:

- All re-fuelling will take place in a designated impermeable area. In addition, oil absorbent materials will be kept on-site in close proximity to the re-fuelling area;
- Fuel will be delivered to plant on-site by dedicated tanker or in a delivery bowser dedicated to that purpose;
- All deliveries to on-site oil storage tanks will be supervised and records will be kept of delivery dates and volumes;
- In the case of a bowser, the driver or supervising foreman will check the delivery bowser daily for leakage;
- The driver will be issued with, and will carry at all times, absorbent sheets and granules to collect any spillages that may accidentally occur; and
- Where the nozzle of a fuel pump cannot be placed into the tank oil storage tank then a funnel will be used.

The appointed Contractor for the Construction Phase of the Proposed Development will ensure that all plant and equipment utilised on-site is in good working condition. Any equipment not meeting the required standard will not be permitted for use within the Proposed Development Site. Only emergency breakdown maintenance will be carried out onsite. Drip trays and spill kits will be available on-site to ensure that any spills from vehicles are contained and removed off-site.

There may also be the requirement for use of portable generators or similar fuel containing equipment during the Construction Phase of the Proposed Development, which will be placed on suitable drip trays. Regular monitoring of drip tray content will be undertaken to ensure sufficient capacity is maintained at all times.

### **Emergency Procedures**

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available on-site including in vehicles operating on-site. Construction staff will be familiar with emergency procedures for in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

- Any required emergency vehicle or equipment maintenance work will take place in a designated impermeable area within the Proposed Development Site;
- Emergency response procedures will be put in place, in the unlikely event of spillages of fuels or lubricants;
- Spill kits including oil absorbent material will be provided so that any spillage of fuels, lubricants or hydraulic oils will be immediately contained;
- In the event of a leak or spill from equipment in the instance of a mechanical breakdown during operation, any contaminated soil will be removed from the Proposed Development Site and compliantly disposed off-site. Residual soil will be tested to validate that all potentially contaminated material has been removed. This procedure will be undertaken in accordance with industry best practice procedures and standards;
- All construction works staff will be familiar with emergency procedures for in the event of accidental fuel spillages; and
- All construction works staff on-site will be fully trained on the use of equipment.

This procedure will be undertaken in accordance with industry best practice procedures and standards. These measures will ensure that there is minimal risk to the receiving hydrological and hydrogeological environment associated with the Construction Phase of the Proposed Development.

### **Welfare Facilities**

Portaloo's and/or containerised toilets and welfare units will be used to provide facilities for site personnel. All associated waste will be removed from the Proposed Development Site by a licensed waste disposal contractor.

#### **16.2.2.3.2 Monitoring**

During the Construction Phase of the Proposed Development the following monitoring measures will be considered:

- Inspections and monitoring will be undertaken during excavations, piling and other groundworks to ensure that measures that are protective of water quality are fully implemented and effective;
- Discharges to surface water / foul sewers will be monitored where required in accordance with statutory consents (i.e., discharge licence);
- Routine monitoring and inspections during refuelling, concrete works to ensure no impacts and compliance with avoidance, remedial and mitigation measures; and
- Materials management and waste audits will be carried out at regular intervals to monitor the following:
  - Management of soils onsite and for removal offsite;
  - Record keeping;
  - Traceability of all materials, surplus soil and other waste removed from the Proposed Development Site; and
  - Ensure records are maintained of material acceptance at the end destination.

#### **16.2.2.4 Operational Phase**

##### **16.2.2.4.1 Mitigation**

There is no requirement for mitigation measures for the Operational Phase taking account of the design measures for the Proposed Development.

##### **16.2.2.4.2 Monitoring**

There are no monitoring requirements specifically in relation to land, soil and geology during the Operational Phase of the Proposed Development.

## 16.2.3 Hydrology

### 16.2.3.1 Construction Phase

#### 16.2.3.1.1 Mitigation

A Construction Environmental Management Plan (CEMP) (DBFL Consulting Engineers, March 2022) and CDWMP (Enviroguide Consulting, March 2022) have been prepared as part of the planning application. The appointed Contractor will review and update the Construction Environmental Management Plan (CEMP), as necessary, to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The CEMP and CDWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

Mitigation measures will be adopted as part of the construction works on the Proposed Development Site. The measures will address the main activities of potential impact which include:

- Control and Management of Water and Surface Runoff;
- Management and control of works adjoining water courses and instream ;
- Management and control of imported soil and aggregates from off-site sources;
- Fuel and Chemical handling, transport, and storage; and
- Accidental release of contaminants – notify relevant statutory authorities.

As part of the overall construction methodology, sediment and water pollution control risks arising from construction-related surface water discharges will be considered. All works carried out as part of these infrastructure works will comply with all Statutory Legislation including the Local Government (Water Pollution) acts, 1977 and 1990 and the contractor will cooperate fully with the Environment Section of Fingal County Council in this regard.

#### **Control and Management of Water and Surface Runoff**

There will be no discharges to groundwater or surface water during the Construction Phase.

Temporary dewatering will be managed through robust dewatering and water treatment methodologies in accordance with best practice standards (CIRIA – C750), the CEMP, CDWMP and regulatory consents. Any groundwater removed will be discharged into the public sewer in accordance with the necessary consent/licence issued under Section 16 of the Local Government (Water Pollution) Acts and Regulations which will be obtained from Irish Water (IW) / Fingal County Council.

There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground, drains or water courses during the Construction Phase of the Proposed Development and sandbagging of gullies may be required during specific works in the vicinity of existing Proposed Development Site drainage.



A monitoring programme will be implemented to ensure that water quality criteria set out in the discharge licence are achieved prior to discharging to the sewer. The monitoring programme shall be designed by an appropriately qualified Environmental Consultant.

There may be a temporary increase in the exposure of the underlying groundwater during earthworks due to the temporary removal of hardstanding areas. Stormwater runoff will be prevented from entering open excavations with sandbags or other approved methods proposed by the Contractor.

A regular review of weather forecasts of heavy rainfall will be conducted by the contractor, and a contingency plan will be prepared for before and after such events to minimise any potential nuisances. As the risk of the break-out of silt laden run-off is higher during these weather conditions, no work will be carried out during such periods where possible.

### **Stockpile Management:**

Where possible, stockpiling of soil and stone on-site will be avoided. However, in the event that stockpiling is required, stockpiled materials pending removal off-site or reuse on-site will be located in designated areas only and there will be no storage of materials within 10m of any surface water gullies. Where necessary, stockpiles will be surrounded with silt fencing to filter out any suspended solids from surface water arising from these materials.

### **Concrete Works**

The use of cementitious grout used during the Construction Phase of the Proposed Development will avoid any contamination of the receiving hydrogeological environment through the use of appropriate design and methods implemented by the appointed Contractor and in accordance with industry standards.

Pre-cast concrete will be used where technically feasible to meet the design requirements for the Proposed Development. Where cast-in-place concrete is required (i.e., building foundations), all work must be carried out in dry conditions and be effectively isolated from any groundwater.

All ready-mixed concrete shall be delivered to the Proposed Development Site by truck. Concrete mixer trucks will not be permitted to wash out on-site with the exception of cleaning the chute into a container which will then be emptied into a skip for appropriate compliant removal off-site in accordance with all relevant waste management legislation.

### **Handling of Fuels and Hazardous Materials**

Any diesel, fuel or hydraulic oils stored on-site will be stored in bunded storage tanks in a dedicated bunded area at least 30m from watercourses. The bunded area will have a volume of at least 110% of the volume of the stored materials as per best practice guidelines (EPA, 2004 Storage and Transfer of Materials for Scheduled Activities and Enterprise Ireland, BPGCS005) and will be properly secured against unauthorised access or vandalism. There will be clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage.

Waste oils and hydraulic fluids will be collected in bunded containers and removed from the proposed development for disposal or re-cycling.

A procedure will be drawn up which will be adhered to during refuelling of on-site vehicles. This will include the following:

- All re-fuelling will take place in a designated impermeable area. In addition, oil absorbent materials will be kept on-site in close proximity to the re-fuelling area;
- Fuel will be delivered to plant on-site by dedicated tanker or in a delivery bowser dedicated to that purpose;
- All deliveries to on-site oil storage tanks will be supervised and records will be kept of delivery dates and volumes;
- In the case of a bowser, the driver or supervising foreman will check the delivery bowser daily for leakage;
- The driver will be issued with, and will carry at all times, absorbent sheets and granules to collect any spillages that may accidentally occur; and
- Where the nozzle of a fuel pump cannot be placed into the tank oil storage tank then a funnel will be used.

Strict supervision of contractors will be adhered to in order to ensure that all plant and equipment utilised on-site is in good working condition. Any equipment not meeting the required standard will not be permitted for use within the Proposed Development Site. Only emergency breakdown maintenance will be carried out on-site. Drip trays and spill kits will be available on-site to ensure that any spills from vehicles are contained and removed off-site.

There may also be the requirement for use of portable generators or similar fuel containing equipment during the Construction Phase of the Proposed Development, which will be placed on suitable drip trays. Regular monitoring of drip tray content will be undertaken to ensure sufficient capacity is maintained at all times.

### **Emergency Procedures**

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available on-site including in vehicles operating on-site. Construction staff will be familiar with emergency procedures for in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

- Any required emergency vehicle or equipment maintenance work will take place in a designated impermeable area within the Proposed Development Site;
- Emergency response procedures will be put in place, in the unlikely event of spillages of fuels or lubricants;
- Spill kits including oil absorbent material will be provided so that any spillage of fuels, lubricants or hydraulic oils will be immediately contained;
- In the event of a leak or spill from equipment in the instance of a mechanical breakdown during operation, any contaminated soil will be removed from the Proposed Development Site and compliantly disposed off-site. Residual soil will be tested to validate that all potentially contaminated material has been removed. This procedure will be undertaken in accordance with industry best practice procedures and standards;
- All construction works staff will be familiar with emergency procedures for in the event of accidental fuel spillages; and
- All construction works staff on-site will be fully trained on the use of equipment.

This procedure will be undertaken in accordance with industry best practice procedures and standards. These measures will ensure that there is minimal risk to the receiving hydrological and hydrogeological environment associated with the Construction Phase of the Proposed Development.

### **Welfare Facilities**

Portaloo's and/or containerised toilets and welfare units will be used to provide facilities for site personnel. All associated waste will be removed from Proposed Development Site by a licenced waste disposal contractor.

### **Boreholes**

Existing boreholes (i.e., TP/WS/RC16) that are no longer required at the Proposed Development Site will be decommissioned in accordance with the specifications outlined in EPA Advice Noted 14 (EPA, 2013). This will remove any potential direct conduit for contaminants to enter the groundwater directly.

#### **16.2.3.1.2 Monitoring**

During the Construction Phase of the Proposed Development the following monitoring measures will be considered:

- Inspections and monitoring will be undertaken during excavations, piling and other groundworks to ensure that measures that are protective of water quality are fully implemented and effective;
- Discharges to surface water / foul sewers will be monitored where required in accordance with statutory consents (i.e., discharge licence);
- Routine monitoring and inspections during refuelling, concrete works to ensure no impacts and compliance with avoidance, remedial and mitigation measures; and
- Materials management and waste audits will be carried out at regular intervals to monitor the following:
  - Management of soils onsite and for removal offsite;
  - Record keeping;
  - Traceability of all materials, surplus soil and other waste removed from the Proposed Development Site; and
  - Ensure records are maintained of material acceptance at the end destination.

#### **16.2.3.2 Operational Phase**

##### **16.2.3.2.1 Mitigation**

Ongoing regular operational monitoring and maintenance of drainage and the SuDS measures as specified in the Infrastructure Report (DBFL Consulting Engineers, March 2022) in accordance with CIRIA SuDS Manual C753 (AECOM, 2022b) which will be incorporated into the overall management strategy for the Proposed Development. This will be incorporated into the overall management strategy for the Proposed Development.

There is no other requirement for mitigation measures for the Operational Phase of the Proposed Development.

#### **16.2.3.2.2 Monitoring**

Ongoing regular operational monitoring and maintenance of drainage and the SuDS measures will be undertaken throughout the lifetime of the Operational Phase of the Proposed Development.

#### **16.2.4 Air Quality**

##### **16.2.4.1 Construction Phase**

##### **16.2.4.1.1 Mitigation**

It is not expected that adverse air quality impacts are likely to occur as a result of the Proposed Development due to the lack of sensitive receptors. However, appropriate mitigation measures, as outlined within the CEMP for the Site, will be employed to further reduce the risk of such impacts occurring:

- The Contractor shall prepare a dust minimisation plan (including a documented system for managing site practice with regard to dust and specification of effective measures to deal with any complaints received) which shall be communicated to all site staff;
- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic;
- Any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions;
- Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly (on any un-surfaced site road, this will be 20 kph and on hard surfaced roads as site management dictates);
- Vehicles delivering material with dust potential (soil, aggregates etc.) will be enclosed or covered with tarpaulin at all times to restrict the escape of dust;
- Public roads outside the site will be inspected on a daily basis for cleanliness and cleaned as necessary;
- Debris, sediment, grit etc. captured by road sweeping vehicles is to be disposed off-site at a licensed facility;
- Vehicles exiting the site shall make use of a wheel wash facility where appropriate prior to entering onto public roads;
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods;



- During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.

#### **16.2.4.1.2 Monitoring**

The monitoring of construction dust during the Construction Phase of the Proposed Development is recommended to ensure that impacts are not experienced beyond the Site boundary. Monitoring of dust can be carried out by using the Bergerhoff Method. This involves placing Bergerhoff Dust Deposit Gauges at strategic locations along the Site boundaries for a period of 30 +/- 2 days. The selection of sampling point locations should be carried out in consideration of the requirements of *VDI 2119* with respect to the location of the samplers relative to buildings and other obstructions, height above ground, and sample collection and analysis procedures. After the exposure period is complete, the Gauges should be removed from the Site; the dust deposits in each Gauge will then be determined gravimetrically and expressed as a dust deposition rate in mg/m<sup>2</sup>/day in accordance with the relevant standard.

#### **16.2.4.2 Operational Phase**

##### **16.2.4.2.1 Mitigation**

It has been determined that the Operational Phase air quality impact is negligible and therefore no Site-specific mitigation measures are proposed.

##### **16.2.4.2.2 Monitoring**

Due to the negligible impact on air quality and climate from the Operational Phase of the Proposed Development, no specific monitoring is recommended.

## 16.2.5 Microclimate

### 16.2.5.1 Construction Phase

#### 16.2.5.1.1 Mitigation

No avoidance, remedial or mitigation measures will be required during the construction phase.

#### 16.2.5.1.2 Monitoring

It is not considered necessary to undertake any formal wind speed and direction monitoring during the Construction Phase.

### 16.2.5.2 Operational Phase

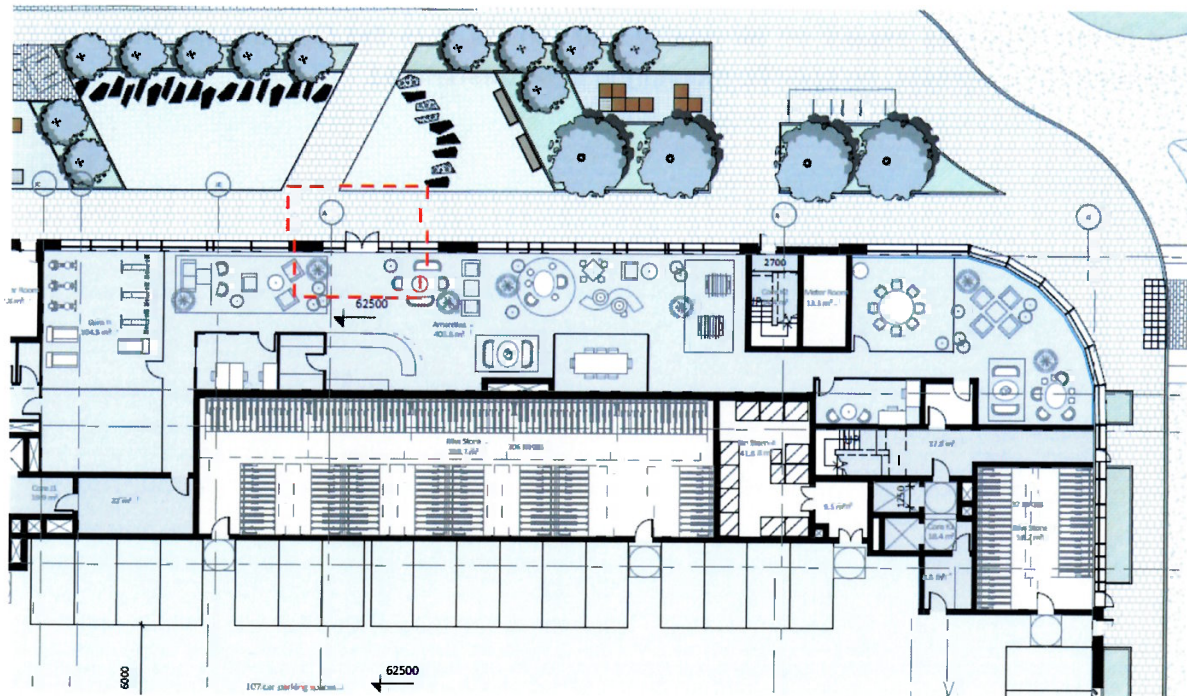
#### 16.2.5.2.1 Mitigation

Regarding Microclimate, during the operational phase, mitigation will be required for the following adverse wind impact:

- Conditions one category too windy for the amenity entrance on the north-east elevation of Site B.

#### Site B Amenity Entrance

The Site B amenity entrance is highlighted in red. It is recommended that a recessed lobby is incorporated into this entrance, to create a buffer region between internal and external wind conditions.



#### 16.2.5.2.2 Monitoring

It is not considered necessary to undertake any formal wind speed and direction monitoring during the Operational Phase.

## 16.2.6 Noise & Vibrations

### 16.2.6.1 Construction Phase

#### 16.2.6.1.1 Mitigation

In order to control likely noise impacts caused by external operations in both the Construction and Operational Phases, mitigation measures as set out in *BS 5228-1: A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise* will be adopted;

- Selection of plant with low inherent potential for generating noise.
- Siting of plant as far away from sensitive receptors as permitted by site constraints.
- Avoid unnecessary revving of engines and switch off plant items when not required.
- Keep plant machinery and vehicles adequately maintained and serviced.
- Proper balancing of plant items with rotating parts.
- Keep internal routes well maintained and avoid steep gradients.
- Minimise drop heights for materials or ensure a resilient material underlies.
- Use of alternative reversing alarm systems on plant machinery.
- Where noise becomes a source of resonating body panels and cover plates, additional stiffening ribs or materials should be safely applied where appropriate.
- Limiting the hours during which site activities likely to create high levels of noise are permitted.
- Appointing a site representative responsible for matters relating to noise.
- Monitoring typical levels of noise during critical periods and at sensitive locations.

During the works the contractor will comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration. In particular, the following practices, as outlined within the Construction Environmental Management Plan (CEMP), will be implemented during the construction phase:

- Erection of a barrier (e.g. Standard 2.4m high construction hoarding) to remove direct line of sight between noise source and receiver when construction works are being carried out in proximity to noise sensitive receivers.
- Establishing channels of communication between the contractor, local authority and residents.
- Appointing a site representative responsible for matters relating to noise.
- A noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels.
- Selection of plant with low inherent potential for generation of noise.

- Siting of noisy plant as far away from sensitive properties as permitted by site constraints and implementation of noise reduction measures such as acoustic enclosures.
- Avoid unnecessary revving of engines and switch off plant when idle.
- All vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order. In addition, all diesel engine powered plant shall be fitted with effective air intake silencers.
- All ancillary pneumatic percussive tools shall be fitted with mufflers or silences of the type recommended by the manufacturers, and where commercially available, dampened tools and accessories shall be used.

There will be vehicular movements to and from the Site of the Proposed Development that will make use of the existing roads and site access points. However, no traffic routes are predicted to experience increases of more than 25% in total traffic flows during the construction phase, therefore, no detailed assessment is required (DMRB Guidelines). Refer to Chapter 12 of the EIAR.

#### **16.2.6.1.2 Monitoring**

As outlined within the CEMP for the Site, a noise and vibration monitoring specialist will be appointed to carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels

Noise limits as outlined in Section 10.2.2 of will be complied with.

#### **16.2.6.2 Operational Phase**

##### **16.2.6.2.1 Mitigation**

During the Operational Phase of the Proposed Development, the design and layout of the facility buildings will serve as mitigation by virtue of the fact that the majority of onsite machinery and equipment will be located within fully enclosed buildings. This phase of the development is not expected to notably increase noise in the surrounding environment.

##### **16.2.6.2.2 Monitoring**

As outlined within the CEMP for the Site, a noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels

Noise limits as outlined in Section 10.2.2 will be complied with.



## **16.2.7 Landscape & Visual**

### **16.2.7.1 Construction Phase**

#### **16.2.7.1.1 Mitigation**

The key landscape and visual mitigation measures used during the Construction Phase have been incorporated into the layout of the site and design of the proposed buildings.

The following mitigation measures are proposed to ensure the trees and hedgerows are fully protected in accordance with 'BS5837 (2012) Trees in relation to the Design, Demolition and Construction – Recommendations' or as may be updated.

In order to avoid physical damage to the roots during demolition or construction the following mitigation measures are proposed:

- Careful manual excavation using hand-held tools will be carried out around the Root Protection Areas (RPAs). Soil may be washed off roots as an alternative. Approximately 85% of roots will be expected to be in the top 600mm.
- Exposed roots will be protected to prevent drying out or damage from temperature changes. Roots will be protected immediately on exposure with hessian sacking or similar. The excavation will be backfilled as soon as possible once the protection has been removed.
- All root protection works will be completed under supervision of a suitably qualified Arborist.
- Individual roots and clumps of less than 25mm width can be pruned without further consultation, if necessary, making a clean cut. Roots and clumps greater than 25mm in width will only be cut if agreed by the supervising Arborist.
- Root Protection Zones will be protected from machinery/scaffolding access with scaffolding boards or similar to spread point loads.
- Backfill around retained roots will be with topsoil or uncompacted sharp sand, or other loose inert granular fill.

A Hedgerow Management Plan will be put in place to ensure the long-term survival of the hedgerow by the Arborist that will be appointed to oversee the construction phase of the Proposed Development.

#### **16.2.7.1.2 Monitoring**

A detailed Landscape Plan has been prepared (Cameo Partners Landscape Architects, Feb 2022), to ensure that the landscape work is implemented in accordance with the design. This document will include tree work procedures, soil handling, planting and maintenance. The contract works will be supervised by a suitably qualified landscape architect. The planting works will be undertaken in the planting season after completion of the main civil engineering and building work.

### **16.2.7.2 Operational Phase**

#### **16.2.7.2.1 Mitigation**

The key landscape and visual mitigation measures used during the Operational Phase have been incorporated into the layout of the site and design of the proposed buildings. The

buildings will be clad in a similar neutral coloured material as the existing and will have a similar horizontal emphasis. The set back of the buildings from the site boundary and the positioning of the new buildings along extensions of existing building lines helps to link the Proposed Development with the existing and localises the visual and landscape impacts.

#### **16.2.7.2.2 Monitoring**

All planting will be carried out in accordance with the Landscape Management Plan. Replacement trees, replacement planting and pruning measures will be captured in landscape maintenance plans. All landscape works will be in an establishment phase for the initial three years from planting. A landscape maintenance plan accompanies the planning application. Prior to completion of the landscape works, a competent landscape contractor will be engaged and a detailed maintenance plan, scope of operation and methodology will be put in place.

## **16.2.8 Archaeology and Cultural Heritage**

### **16.2.8.1 Construction Phase**

#### **16.2.8.1.1 Mitigation**

It is possible that excavation works associated with the Proposed Development may have an adverse impact on small or isolated previously unrecorded archaeological feature or deposits that have the potential to survive beneath the current ground level. If any archaeological remains are discovered during this project, all works will cease and an expert archaeologist will be brought to Site and all future works will be carried out under the supervision of the archaeologist.

#### **16.2.8.1.2 Monitoring**

No specific monitoring measures are required in relation to archaeology and cultural heritage given the fact that it is not predicted that the Proposed Development will have any adverse impacts on any archaeological features or deposits.

### **16.2.8.2 Operational Phase**

#### **16.2.8.2.1 Mitigation**

Since no known archaeological, architectural or cultural heritage remains were found during the desk top survey, it is likely that there are no further mitigation measures required for this development.

#### **16.2.8.2.2 Monitoring**

No specific monitoring measures are required in relation to archaeology and cultural heritage given the fact that it is not predicted that the Proposed Development will have any adverse impacts on any archaeological features or deposits.

## 16.2.9 Materials Assets

### 16.2.9.1 Waste and Utilities

#### 16.2.9.1.1 Construction Phase

##### 16.2.9.1.1.1 Mitigation

A Construction Environmental Management Plan (CEMP) (DBFL Consulting Engineers, March 2022) and CDWMP (Enviroguide Consulting, March 2022) have been prepared as part of the planning application. The appointed Contractor will review and update the Construction Environmental Management Plan (CEMP), as necessary, which will define aspects such as construction phasing, connection to site utilities, shut off contingencies and diversions as necessary to prevent any negative effects on material assets.

The CEMP and CDWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

The following mitigation measures are proposed for the construction phase of the Proposed Development with reference to Material Assets:

- Waste materials will be separated at source and should follow the Construction Environmental Management Plan (MEA, 2021).
- Prior to commencement a detailed calculation on the quantities of topsoil, subsoil and green waste will be prepared.
- Soils will be tested to confirm they are clean, inert or non-hazardous.
- A suitably competent and fully permitted waste management company will be employed to manage all waste arising for the Construction Phase. The appointed waste contractor shall have the relevant authorisations for the collection and transport of waste materials office. Waste Permitting, Licences & Documentation under the Waste Management (Collection Permit) Regulations 2007, as amended, a collection permit to transport waste, which is issued by the National Waste Collection Permit Office (NWCPO), must be held by each waste collection contractor.
- Similarly, all waste will be transported to an appropriately authorised facility (Local Authority Certificate of Registration COR, Waste Facility Permit WFP, or Environmental Protection Agency licenced facility)
- All waste quantities and types will be recorded and quantified with records retained onsite for the duration of the Construction phase.
- Refuelling of plant and machinery on-site will be by mobile tanker in a designated area with appropriate containment measures in place.

##### 16.2.9.1.1.2 Monitoring

The monitoring of construction and demolition waste during the Construction Phase of the Proposed Development is recommended to ensure that impacts are not experienced beyond the Site boundary. The Main Contractor will be responsible for monitoring and record keeping in respect of waste leaving the facility and that these records will be maintained on site.



#### **16.2.9.1.2 Operational Phase**

##### *16.2.9.1.2.1 Mitigation*

Mitigation measures relating to site drainage and stormwater management in the Proposed Development are detailed within Chapter 7, Hydrology.

As outlined in the OWMP for the Proposed Development, it is intended to ensure that the highest possible levels of waste reduction, waste reuse and waste recycling are achieved for the Proposed Development. Specifically, the OWMP aims to achieve waste prevention, maximum recycling and recovery of waste with a focus on diversion of waste from landfill wherever possible.

No further mitigation measures are considered necessary during the Operational Phase. The existing utilities and services will facilitate the required needs of the development without impacting on any existing utilities within the locality.

##### *16.2.9.1.2.2 Monitoring*

There are no specific monitoring measures proposed in relation to Material Assets - Utilities and Waste. The project design of the Proposed Development has facilitated the improvements required to service the site without negatively impacting the local existing utilities.

#### **16.2.9.2 Traffic**

##### **16.2.9.2.1 Construction Phase**

###### *16.2.9.2.1.1 Mitigation*

During the construction phase of the development, the following measures will be put in place to reduce the impact on the surrounding environment:

- The contractor will be required to provide wheel cleaning facilities, and regular cleaning site access will be carried out.
- Temporary car parking facilities for the construction workforce will be provided within the site and the surface of the car park will be prepared and finished to a standard sufficient to avoid mud spillage onto adjoining roads.
- Monitoring and control of construction traffic will be ongoing during construction works.

###### *16.2.9.2.1.2 Monitoring*

No specific monitoring measures have been proposed in relation to Material Assets – Traffic for the Construction Phase of the proposed development.

##### **16.2.9.2.2 Operational Phase**

###### *16.2.9.2.2.1 Mitigation*

###### **Vehicular Traffic**

Modifications to the road network in the vicinity of the site are proposed with the delivery of this development in order to ensure DMURS compliance, efficiently flow of traffic and safety of pedestrians and cyclists. These changes have been listed in section of this Chapter.

Site vehicular accesses, pedestrians/cyclists facilities, and road network will be design in accordance with the standards established in the Design Manual for Urban Roads and Streets

(DMURS), with appropriate corner radii, lane width, and visibility splay to ensure safety of all users.

#### *Active Modes*

During the operational phase of the development the following measures will be put in place to improve pedestrian and cyclist facilities:

- Internal road markings through the carparks to highlight pedestrian routes.
- Dropped kerbs at building entrances to enable easier access.
- A total of 730 no. high quality cycle parking spaces will be provided at ground level.

#### *16.2.9.2.2.2 Monitoring*

No specific monitoring measures have been proposed in relation to Material Assets – Traffic for the Operational Phase of the proposed development.

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