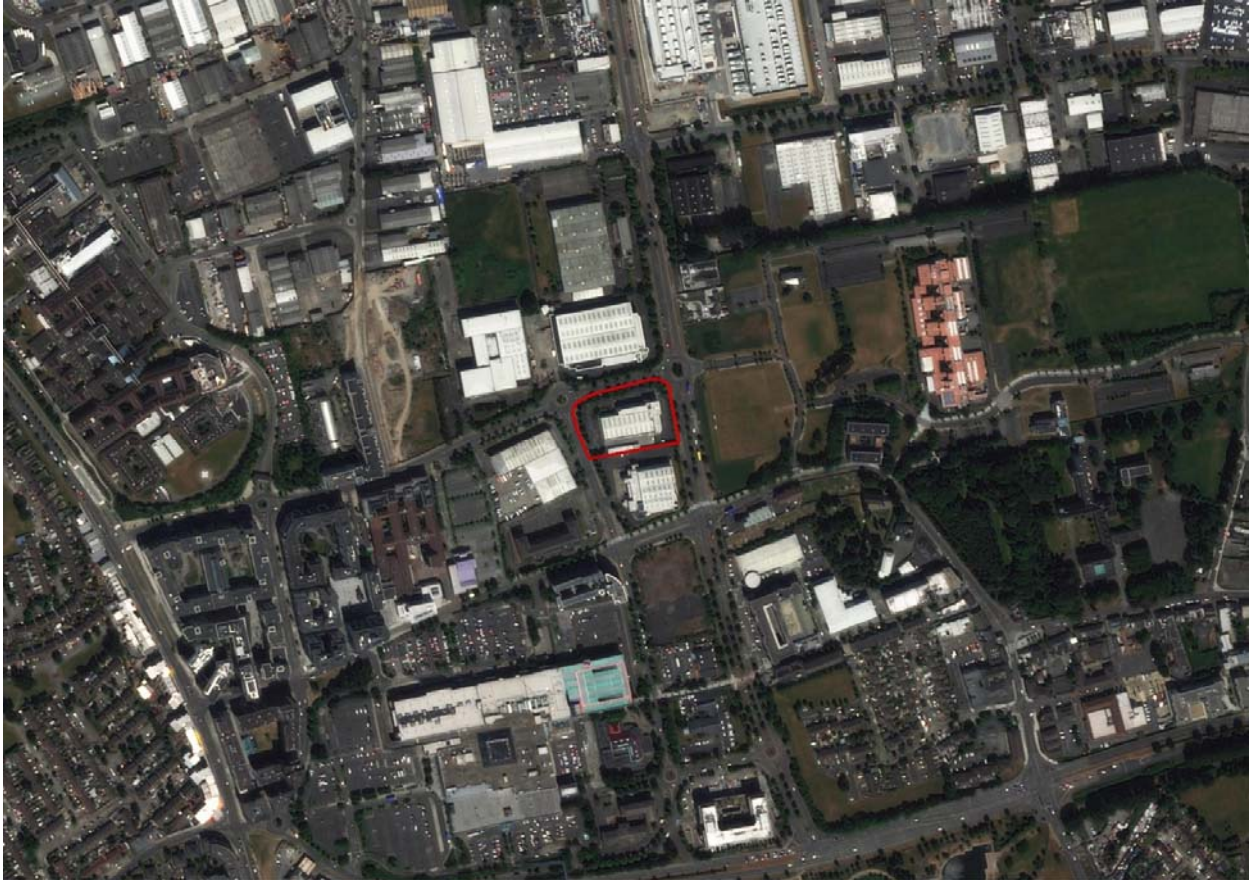


Ecological Impact Assessment (EclA) for the proposed SHD planning application for a residential development at The Arboury (former ABB site) on Belgard Road, Tallaght, Dublin 24.



10<sup>th</sup> May 2022

**Prepared by:** Bryan Deegan (MCIEEM) of Altemar Ltd.

**On behalf of:** Landmarque Property Group Ltd.

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Document Control Sheet			
Project	Ecological Impact Assessment (EclA) for the proposed SHD planning application for a residential development at The Arboury (former ABB site) on Belgard Road, Tallaght, Dublin 24		
Report	Ecological Impact Assessment		
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# Introduction

## Background

Ecological Impact Assessment (EclA) has been defined as *'the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components'* (Treweek, 1999). *"The purpose of EclA is to provide decision-makers with clear and concise information about the likely ecological effects associated with a project and their significance both directly and in a wider context. Protecting and enhancing biodiversity and landscapes and maintaining natural processes depends upon input from ecologists and other specialists at all stages in the decision-making and planning process; from the early design of a project through implementation to its decommissioning"* (IEEM, 2010).

The following EclA has been prepared by Altemar Ltd. at the request of Landmarque Property Group Ltd.

## Study Objectives

The objectives of this EclA are to:

1. Outline the project;
2. Undertake a baseline ecological feature, resource and function assessment of the site and zone of influence;
3. Assess and define significance of the direct, indirect and cumulative ecological impacts of the project during its construction and operational stages;
4. Propose mitigation measures to remove or reduce impacts through sustainable design and ecological planning; and

The following guidelines have been used in preparation of this EclA:

- Guidelines for Ecological Impact Assessment (EclA) (IEEM, 2019);
- Institute of Ecology and Environmental Management Guidelines for EIA (IEEM, 2005).
- Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2002);
- Draft Guidelines on the information to be contained in EIARs (2018);
- Advice Notes on current practice in the preparation of EIS's (EPA, 2003);

## Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include: residential; infrastructural; renewable; oil & gas; private industry; Local Authorities; EC projects; and, State/Semi-State Departments. Bryan Deegan, the managing director of Altemar, is an Environmental Scientist and Marine Biologist with 27 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. He is currently contracted to Inland Fisheries Ireland as the sole "External Expert" to environmentally assess internal and external projects. He is also chair of an internal IFI working group on environmental assessment. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture).

## Description of the Proposed Project

The site of c.0.898 ha is located at the former ABB Site, Belgard Road, Tallaght, Dublin 24, D24 KD78. The site is bound by Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.

The proposed development will consist of:

1. Demolition of all existing structures on site (with a combined gross floor area of c. 3625 sqm)
2. The construction of a mixed-use residential development set out in 3 No. blocks including a podium over a basement, ranging in height from 2 to 13 storeys (with core access above to roof terrace), comprising:
  - 334 no. residential units of which 118 No. will be Build to Rent (BTR) residential units, with associated amenities and facilities across the development,
  - 4 No. retail/café/restaurant units and 3 no. commercial spaces associated with the 3 no. live-work units (723 sqm combined),
  - Childcare facility (144 sq.m.),

- 670 No. bicycle parking spaces including 186 visitor spaces; 117 car parking spaces (including 6 disabled spaces) are provided at ground floor and basement level.
- The overall development has a Gross Floor Area of 29,784 sq.m.
- Two (2) podium residential courtyards and three (3) public accessible pocket parks, two (2) to the North & one (1) to the South.
- Linear Park (as a provision of the Tallaght Town Centre LAP) providing safe public pedestrian and cycling access between Belgard Rd and Belgard Square East

3. Of the total 334 residential units proposed, unit types comprise:

#### *Block A (Build-to-Rent)*

- 91 no. 1 bed units
- 1 no. 2 bed 3 person units
- 26 no. 2 bed 4 person units

#### *Blocks B & C*

- 2 no. live-work studio units
- 102 no. 1-bed units
- 12 no. 2-bed 3 person units
- 88 no. 2-bed 4 person units including 5 no. duplex units
- 1 no. 2-bed 4 person live-work unit
- 11 no. 3-bed units

4. All associated works, plant, services, utilities, PV panels and site hoarding during construction

The proposed site location and layout plan is seen in Figures 1-3.

### Spatial Scope and Zone of Influence

As outlined in CIEEM (2018) *'The 'zone of influence' for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.'* In line with best practice guidance an initial zone of influence should be set at a radius of 2km for non-linear projects (IEA, 1995). The closest watercourse to the proposed development site is the Jobstown Stream./ River Dodder, located approximately 649 m from the proposed development. There is an indirect pathway to the Jobstown Stream/River Dodder and out of an abundance of caution it is considered to be within the potential Zone of Influence (Zoi). Drainage from the site, both foul and surface water, would be seen as the outputs from the site during construction and operation that could potentially extend the potential Zoi. The Zoi of the proposed project would be seen to be restricted to the site outline with potential for minor localised noise, dust, light impacts during construction, in addition to downstream effects from surface water. As a result, further information is provided in relation to the works on site, the proposed landscape design, the drainage strategy in addition to the flood risk assessment.

### Landscape

A Landscape Design Statement was composed by Cameo & Partners. In relation to the landscape design and plan for the proposed project, the report states that:

*'The emerging landscape positively responds to the Site's location through the creation of a series of connected public and raised amenity pocket parks and courtyards, and the strengthening of wider vistas to the Wicklow mountains to the south and into the permitted.*

*It strengthens green infrastructure through the introduction of the new green lane and the strong north south linkages.*

*It provides improved access for the local and emerging community -provides defensible space between the communal courtyards and the adjacent private frontages.*

*It provides spaces for new planting tube accommodated and to provide strong tree planting to the street frontage.'*

Furthermore, the report states that:

*'As part of the communal amenity space provision, there are three proposed designated terraces for the residents. Some of the rooftops will be designated to biodiversity enhancements and as part of the SUD's strategy and PV provision.*

*As part of all the amenity terrace design, screen planting will be introduced to help alleviate the wind mitigation at this height. Typical species will be Pennisetum alopecuroides, 'Hameln', Fagus sylvatica hedge, Dryopteris wallichiana, Stipa tenuissima and Hakonechloa macra.'*

The report also states that: *'A variety of trees have been selected to enhance the characteristics of the scheme. The following page illustrate these in more detail with key species. A total of 86 no. large multi-stem and large shrubs are proposed across the development overall.'*

In relation to the biodiversity enhancement proposed by the Landscape Design Statement, the report states that: *'The scheme presents numerous opportunities to deliver ecological enhancements for the benefit of the new residents and local biodiversity. Some of these are:*

- *Rain garden*
- *Green roofs*
- *Native Planting*
- *Habitat creation for Wildlife*

*Other enhancements that may also be adopted to maximise the opportunities for the inclusion of biodiversity are listed below. These are aimed at meeting local biodiversity targets and will be considered upon guidance from the Ecology Officer.*

#### **BAT BOXES**

*The inclusion of bat boxes can help provide roosts for a variety of species. These boxes can be fabricated from a range of materials and positioned against building facades, fences and amongst tree planting. Coordination with an ecologist will be required.*

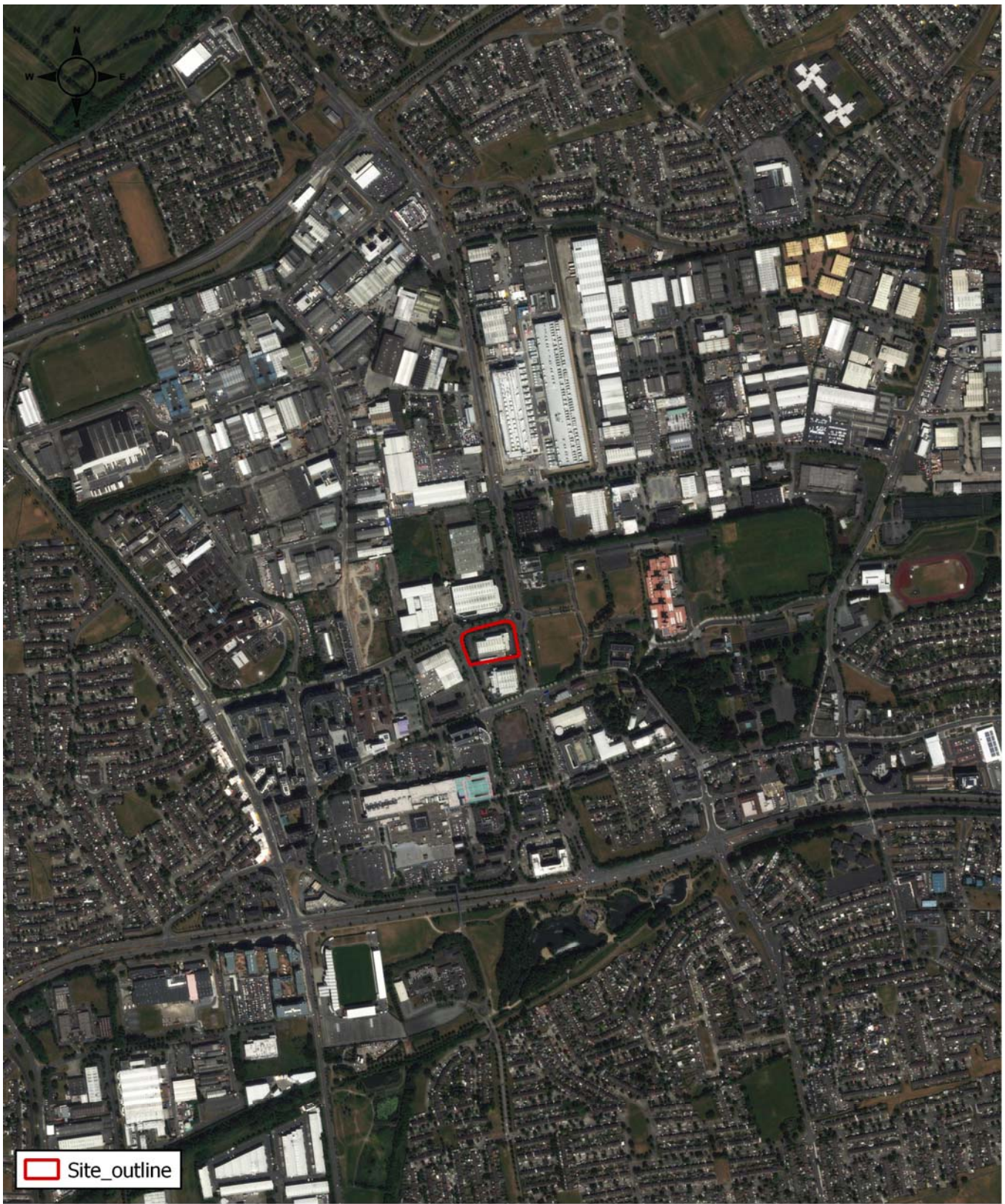
#### **INSECT HOTELS**

*Insect hotels may be positioned in a couple of locations across the scheme providing the perfect habitat for invertebrates such as bees and butterflies. The inclusion of these types of habitat will help cross pollination of the planting, help sustain other wildlife and provide an interesting educational tool too. The design, scale and location to be developed in collaboration with an ecologist to maximise the benefits associated with this habitat type.*

#### **BIRD BOXES**

*Bird boxes provide a low tech and effective way to encourage wildlife into the scheme. Positioned on buildings and within trees these simple habitats provide visual interest and can echo the architectural styles seen throughout the development. Here it is suggested that these are incorporated into language of the play area on totems.'* The landscape general arrangements plan is seen in Figure 4.





0      0.3      0.6      0.9      1.2 km

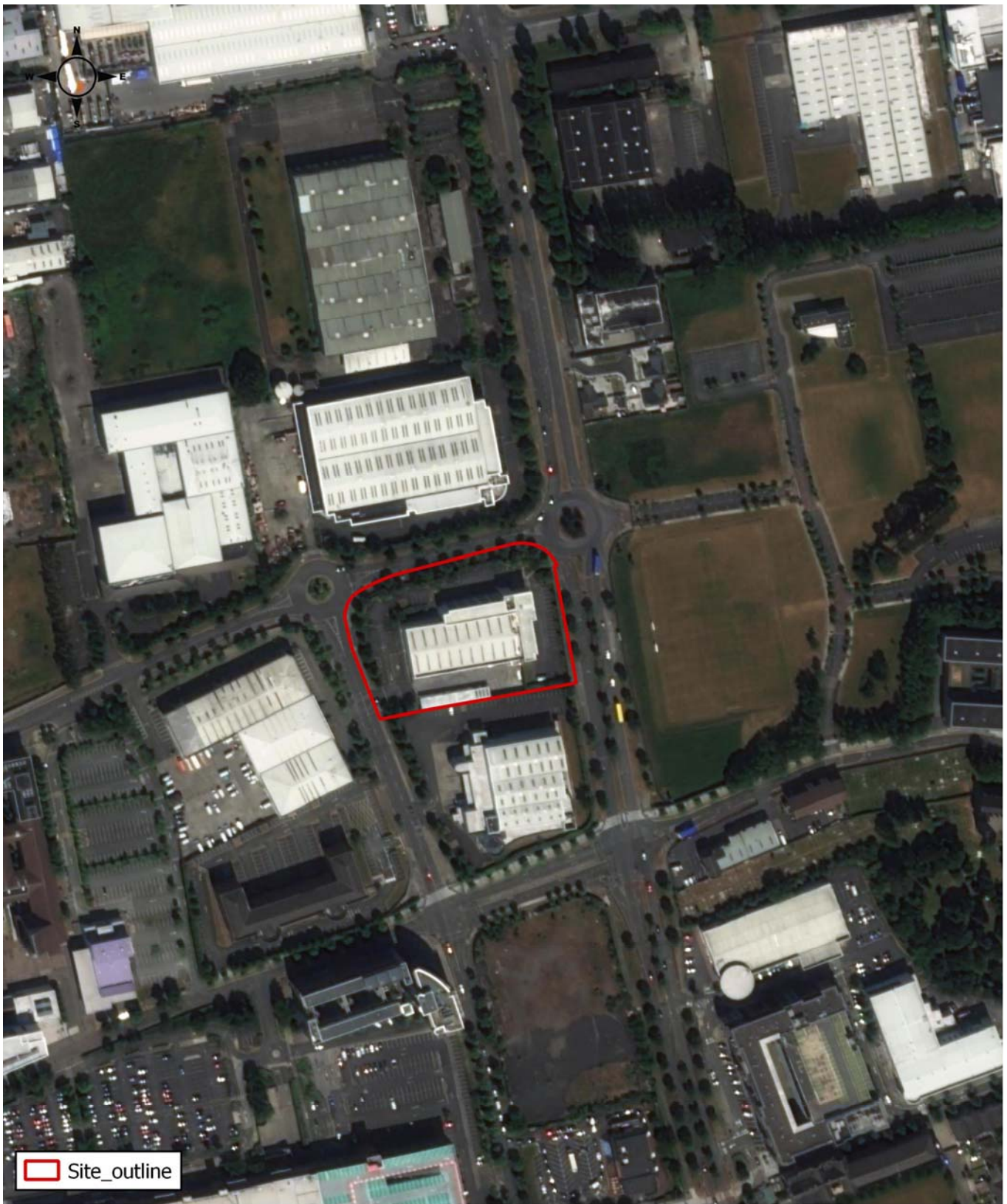
Project: Belgard Road  
 Location: Talaght, Dublin 24, Co. Dublin  
 Date: 20th February 2022  
 Drawn By: Bryan Deegan (Altemar)

**ALTEMAR**  
 Marine & Environmental Consultancy



**Figure 1. Site location map**





0 0.09 0.18 0.27 km

Project: Belgard Road  
 Location: Talaght, Dublin 24, Co. Dublin  
 Date: 20th February 2022  
 Drawn By: Bryan Deegan (Altamar)

**ALTEMAR**  
 Marine & Environmental Consultancy



Figure 2. Site layout plan







## Arboricultural Assessment

An Arboricultural Assessment & Impact Report has been prepared by CMK Hort + Arb Ltd.

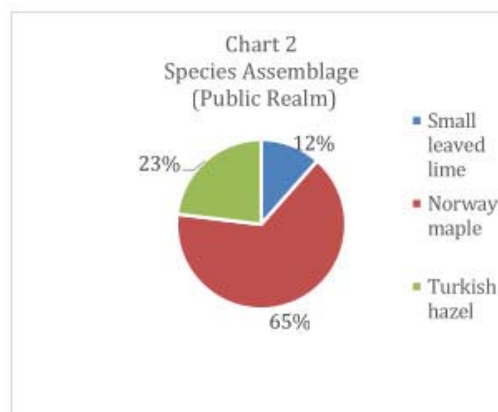
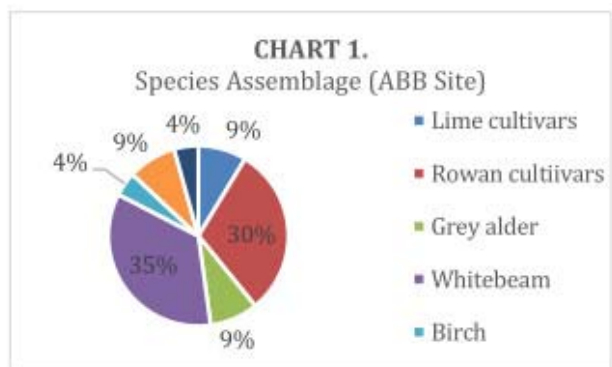
In relation to the existing trees on site, the report states that:

*'The site is located at the former ABB Site, on the junction of Belgard Road and Belgard Square North. It is an industrial warehouse site with offices of c.0.898 ha The site is bordered Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.*

*A total of 24 trees were assessed within the site with additional trees assessed within the public realm on Belgard Road and Belgard Square North & East. The trees within the industrial complex are located on the north, east and western boundaries and are all contemporary with the building. The age of the trees reflects this with all the trees within the young to early-mature age classes. The range of species also reflects the industrial nature of the site with smaller, more ornamental species / cultivars as opposed to potentially larger species predominating (chart 1). These include rowan and whitebeam (*Sorbus sp*) with more occasional alder (*Alnus incana*) and lime (*Tilia*) cultivars (images 2-3)*

*There has been minimal management of trees to date. The quality of the trees are good overall (table 1) with the vast majority of the trees within category B which gives them a moderate quality categorisation (BS5837 2012) with those within category C of low value overall. There are also a range of shrubs including lilac, hebe and potentilla present. In the main they have been tightly clipped (image 2) and are of low to moderate landscape value as a result. A total of 26 trees within the public realm on Belgard road and Belgard Square North & East were assessed (for locations refer to drawing TABB001 101). They are composed of small leaved lime (*Tilia cordata cv*), Turkish hazel (*Corylus avellana*) and Norway maple (*Acer platanoides*) (Chart 2). The trees are early-mature though range considerably in terms of size. They are generally well developed (refer to Appendix II for a detailed description of individual trees) and all have been categorised as B.*

*A number are growing close to or just overhanging the ABB site (image 4). They are very unlikely to have roots which extend into the site as a boundary wall and fence delineates the boundary and would restrict root movement into the site.'*



Category	No	% of total
A	0	0
B	21	88
C	3	12
U	0	0

Table 1. Tree Categorisations (ABB Site)



Furthermore, the report states that:

### **'3. Impact of proposed development**

*The proposed development will necessitate the demolition of all existing structures on site (and the construction of a mixed-use residential development set out in 3 No. blocks including a podium over a basement, ranging in height from 2 to 13 storeys. The proposed development will necessitate the removal of all existing trees within the site (table 1) plus a total of twenty three early-mature category B trees within the public realm on Belgard Square North & East.*

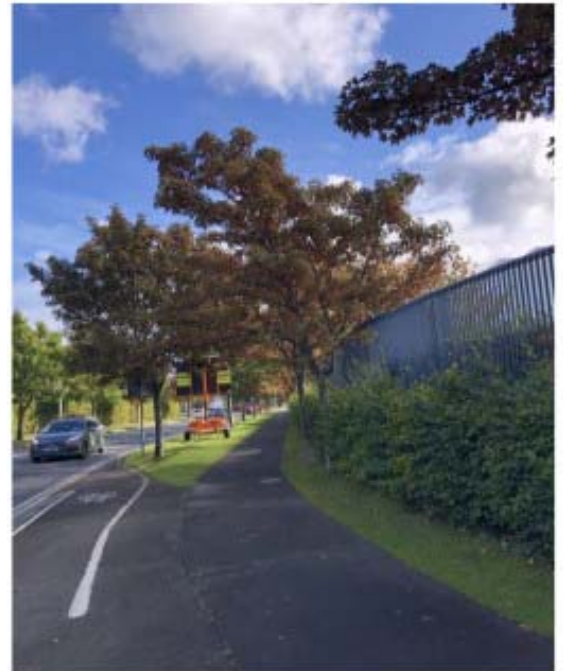
*The impact of the proposed development on trees is shown on drawing TABB001 102 Rev B and is considered significant in terms of tree loss in this area. Proposed new tree and other associated plantings are outlined within the Landscape Strategy provided by Cameo & Partners. They have shown a total of 86 trees planted over the site.'*



**Image 3.** Alder on southern boundary

Tree Categories	Number	% of Total Within category
A	0	0
B	21	100
C	3	100
U	0	0

**Table 2.** Arboricultural Impact ABB Site



**Image 4.** Trees on Belgard Square North



**Image 2.** Whitebeam on western boundary

The Arboricultural assessment and impact of the proposed development are seen in Figures 5 and 6.





Figure 6. Arboricultural impact



## Drainage

An Engineering Services Report was composed by CS Consulting Group. The report assesses the proposed development in the context of the existing and proposed foul and surface water drainage systems.

### Foul Water Drainage

In relation to the existing foul water drainage, the report states that: ‘

*Further to a review of the Irish Water drainage records for the area suggests that there is an existing 225mm diameter gravity foul sewer traversing the Belgard Square Road, flowing down the Belgard Square East Road (towards the N81). See Appendix A for Irish Water drainage records. The proposed development shall be serviced by a new drainage system with separate sewers and manholes for both foul and storm water within the sites boundary. The proposed foul network has been designed in accordance with Irish Water Codes of Practice for Waste Water, the Building Regulations & the Regional Code of Practice for Drainage Works, Version 6.’*

In relation to the proposed foul water drainage, the report states that: ‘*All foul effluent generated from the proposed development shall be collected in 150mm diameter pipe, provision for a pumping station should be made subject to a survey of the existing levels to ensure a new connection to the existing 225mm diameter foul sewer running adjacent to the Belgard Square East Road can be made.*

*The drainage network for the development shall be in accordance with Part H of the Building Regulations and to the requirements and specifications of Irish Water.*

*A Pre-Connection Enquiry for 389 Residential Units and 1,500m<sup>2</sup> of Retail Units (over and above what is proposed by the development) was submitted to Irish Water on the 24/08/2020 for a 150mm diameter water connection and the Client has received a response which requires further discussion with Irish Water prior to lodgment of the Stage 3 SHD application documentation. It is to be noted that these figures applied as part of the pre-connection enquiry are more than the 334 units now currently proposed. The confirmation of feasibility letter was issued by Irish Water after an extensive period of modelling on the capacity of their network in the area .....’.*

The foul water discharge from the site will then be treated at Ringsend Wastewater Treatment Plant (WwTP).

### Surface Water Drainage

In relation to the existing surface water drainage, the report states that: ‘*Following receipt of the drainage records (see Appendix A) there is an existing 225mm stormwater line running along the eastern boundary of the development site on Belgard Road. There is also a stormwater line running along the northern and western boundaries of the site, the diameter of which is unknown.*

In relation to the proposed surface water drainage, the report states that: ‘*In accordance with the requirements of SDCC Drainage Division, all new developments are to incorporate the principles of Sustainable Urban Drainage Systems, (SuDS). The SuDS principles require a two-fold approach to address storm water management on new developments. The first aspect is to reduce any post development run-off to predevelopment discharge rates. The development is to retain storm water volumes predicted to be experienced during extreme rainfall events. This is defined as the volume of storm water generated during a 1 in 100-year storm event increased for predicted climate change factors. To ensure an accurate calculation of the required attenuation for the site Met Eireann was contacted to provide:*

*a) The SAAR (Standard Annual Average Rainfall) for the area: 825mm*

*b) The sliding duration table for the site indicating the 1:100-year rainwater intensities to be used.*

*Based on the above criteria, the development shall require 1139 m<sup>3</sup>, this is based on effective permeable area of 0.813 has, soil type 2, and a SAAR of 825mm. The site area is 0.898ha. GDSDS recommend maximum Qbar of 2l/s/ha (subject to a minimum of 2l/s for operation/maintenance reasons. Therefore, the total outflow is limited to 2l/s for the development. See calculations in Appendix C The restricted flow from the development site shall then discharge to the existing 225mm stormwater network along the eastern boundary. The last public manhole and network to the existing boundary sewer is to be constructed in accordance with the Local Authority’s requirements.*

*The second aspect is the policy of the Local Authority is to include Sustainable Urban Drainage Systems, SuDS, for all new applications, as such a range of SuDS devices are generally available but some not feasibility for smaller urban brownfield sites such as this such as below:*

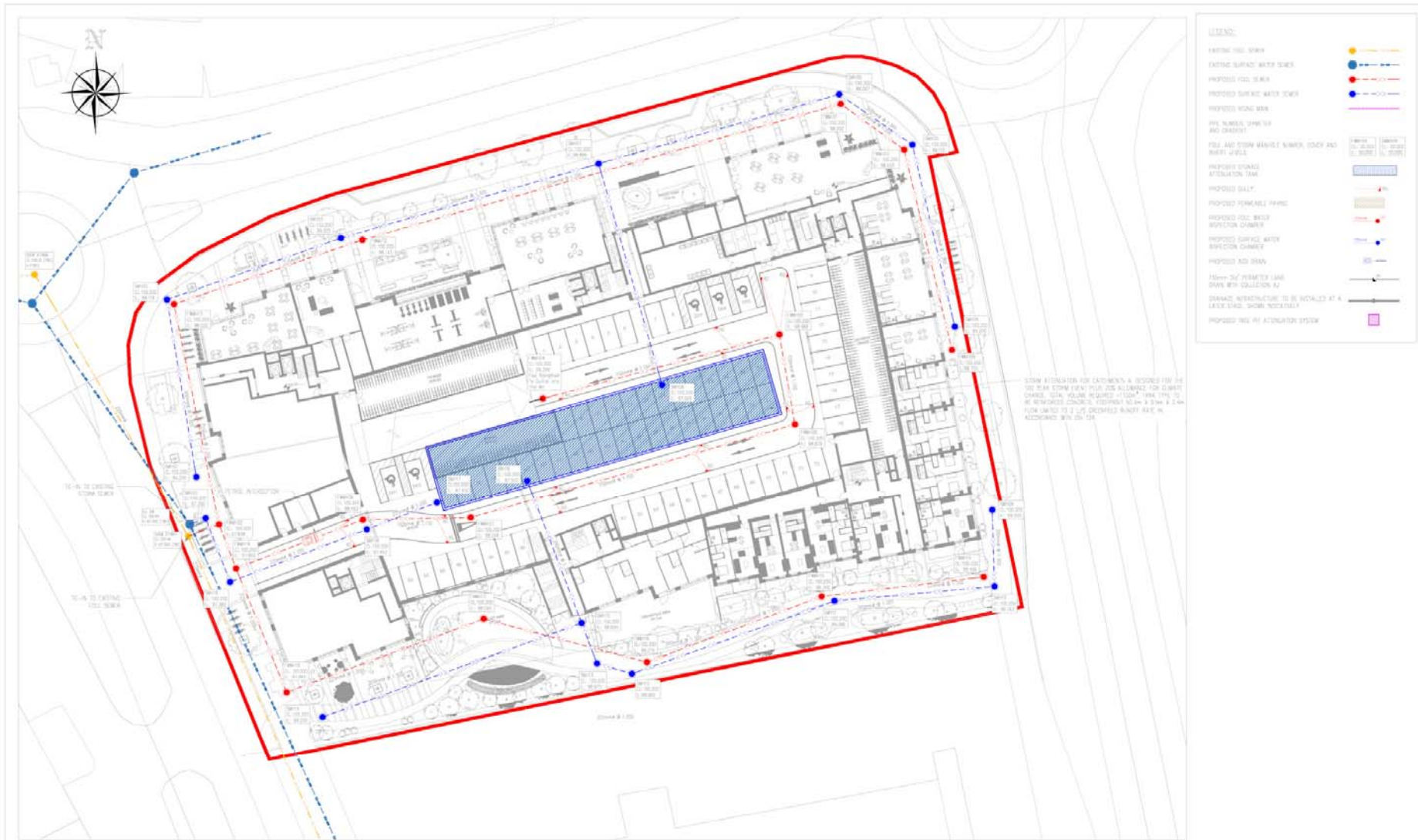
- *Green/Blue roofs – Green roofs are provided to all roof surfaces as highlighted on C+WOB Architects roof drawing (see figure below)*
- *Swales – due to the urban brownfield nature of the site, swales are not possible*
- *Filter Drains/Channel rills – due to the urban brownfield nature of the site, swales are not possible*
- *Infiltration systems – based on recent experience in the area, it is known that the ground is not conducive to surface water disposal via infiltration*
- *Rain Gardens – numerous landscaping soft features are proposed throughout the development at ground level and terraces; refer to CAMEO Landscaping layout drawings*
- *Permeable Paving/Asphalt – The full site coverage of the podium structure, coupled with other soft landscaping areas makes permeable paving not possible*
- *Tree pits – numerous landscaping soft features are proposed throughout the development at ground level and terraces; refer to CAMEO Landscaping layout drawings*
- *Rainwater harvesting – rainwater harvesting is not proposed for the development.'*

The proposed drainage layout for the development is seen in Figure 7

## Flood Risk Assessment

A Flood Risk Assessment was composed by CS Consulting Group. In conclusion, the report states that:

- *The site is in Flood Zone C and therefore no justification test is required.*
- *There is no river that runs through, or adjacent to the site.*
- *A review of the Office of Public Works flood maps database shows no flooding on the applicant site, with the nearest flooding being TUD, Tallaght Campus, and south of the N81.*
- *Predicted flood mapping for pluvial/tidal flood events shall not affect the subject lands.*
- *The proposed development shall have a storm water attenuation system to address a 1 in 100 -year storm events, increased for predicted climate change values. This shall significantly reduce the volume of storm water leaving the site during storms events which in turn shall have the effect of reducing the pressure on the existing public drainage system.'*



**LEGEND:**

- EXISTING FOLL SEWER
- EXISTING SURFACE WATER SEWER
- PROPOSED FOLL SEWER
- PROPOSED SURFACE WATER SEWER
- PROPOSED WASTE MANHOLE
- PIPE MATERIAL, SPAN/TEN AND JOINTS
- FULL AND STORM MANHOLE NUMBER, COVER AND RISE/DEPTH
- PROPOSED STORM ATTENUATION TANK
- PROPOSED DRAIN
- PROPOSED PERMEABLE PAVING
- PROPOSED 100L W/UP INSPECTION CHAMBER
- PROPOSED SURFACE WATER INSPECTION CHAMBER
- PROPOSED 600 SEWER
- 150mm 30° PERMATEX LAMB DRAIN WITH COLLECTION AJ
- DRAINAGE INFRASTRUCTURE TO BE INSTALLED AT A LATER STAGE - SHOW INDICATIVELY
- PROPOSED TIE-IN AT ATTENUATION SYSTEM

STORM ATTENUATION FOR CATCHMENTS & DESIGNED FOR 100 LPM PER HOUR STORM FLOW PLUS 20% ALLOWANCE FOR CLIMATE CHANGE. TOTAL VOLUME REQUIRED AT 100mm<sup>3</sup> TANK THIS IS 40 RETENTION CONCRETE, 100mm<sup>3</sup> IS 2.5m x 2.5m x 1.5m LIMITED TO 2 LITRE DRAINAGE RAINFALL RATE IN ACCORDANCE WITH EN 12056

PROPOSED FOUL & SURFACE WATER DRAINAGE  
SCALE: 1:200

**PLANNING DRAWING**  
THIS DRAWING HAS BEEN ISSUED FOR PLANNING PURPOSES ONLY AND MUST NOT BE USED FOR ANY OTHER CIRCUMSTANCES

**NOTES**

1. For setting out refer to architect's drawings
2. This drawing to be read in conjunction with all other Architectural and Engineering drawings and all other relevant drawings and specifications.
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1	15/04/2021	ISSUED FOR PERMIT	DR	DR

Client: Landmarque Belgard Development Co. Ltd  
 Project: The Abbey  
 Site: Belgard Road, Galway 24  
 Title: PROPOSED FOUL AND SURFACE WATER DRAINAGE - GROUND LEVEL  
 Drawing No: BR-CSC-ZZ-00-DR-C-0005  
 Date: 15/04/2021  
 Scale: 1:200  
 Status: P1

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## Lighting

A Lighting Masterplan was composed by EQ2 Light. The document details the implementation of artificial illumination within the exterior of the ABB Belgard Road project. The document states that: *'The ABB Belgard Road scheme presents as an opportunity to improve local street lighting provisions as well as set a precedent for future developments in the surrounding local area.'* In relation to the technical information for the proposed lighting for the development, the report states that:

### **'TECHNICAL MEMORANDA**

*A full range of technical memoranda have been consulted as part of the development of The Arboury. These will form the technical benchmark for many of the principles and arrangements described above. Memoranda will include but not be limited to the following documents:*

#### **South Dublin County Council Public Lighting Specification Document**

*The lighting design proposed for the The Arboury Site will meet all standards and technical specifications set out with-in the SDCC document. Including but not limited to the requirement to meet I.S EN 13201-2:2015 and BS 5489-1:2020 relating to road lighting.*

#### **Tallaght Town Centre Local Area Plan 2020**

*The use of artificial lighting will align with the goals set out for Tallaght Town Centre in this document. Note will be taken of section 9.0 (Tallaght Specific Development Standards) particularly section 9.8 on Safety and Security.*

#### **British Standard 5489-1:2020 and the Associated EN13201-2:2015**

*This standard document provides a basic platform for the use of artificial light within the The Arboury scheme. A key reference is table A6 'Lighting Classes for City and Town Centres', where a Classification of C3 will be reviewed in relation to the proposal for mixed vehicle and pedestrian space with separate foot-ways.*

#### **BS EN 12464-2 (2014) Light and Lighting - Lighting Of Work Places. Part 2: Outdoor Work places**

*This British Standard is concerned with enabling people to perform outdoor visual tasks efficiently and accurately, especially during the night.*

#### **Chartered Institute of Building Services Engineers, Lighting Guide 6: 2016**

*In particular, focusing on the guidance indicated for sections 2.5 Landscape Lighting, 2.6 Facade Lighting, 2.8 Roadways 3.2 Pedestrian Routes, Cycleways and Subways, and 3.4 Steps, Stairs and Change of Levels. Consideration should be made on Appendix 4 in relation to the effects of Artificial Light on Animal and Plant Ecology*

#### **Institute of Lighting Professionals, Guidance Note 01/20, 'Guidance Notes for the Reduction of Obtrusive Light'**

*Again, the principles of lighting control, optical control/methods are incorporated into the proposed scheme described above. The proposed development will meet all guidance set out for the E3 lighting environment where feasible.*

#### **Institute of Lighting Professionals, Guidance Note 08/18, 'Bats and Artificial Lighting in the UK'**

*A key piece of Guidance recognizing the particular requirements of Bats in the urban environment. Specific performance guidance with regard to lamp spectral outputs, ultra-violet emissions, illuminance limitation zones and dimming/part night lighting are all incorporated in the proposals described above.*

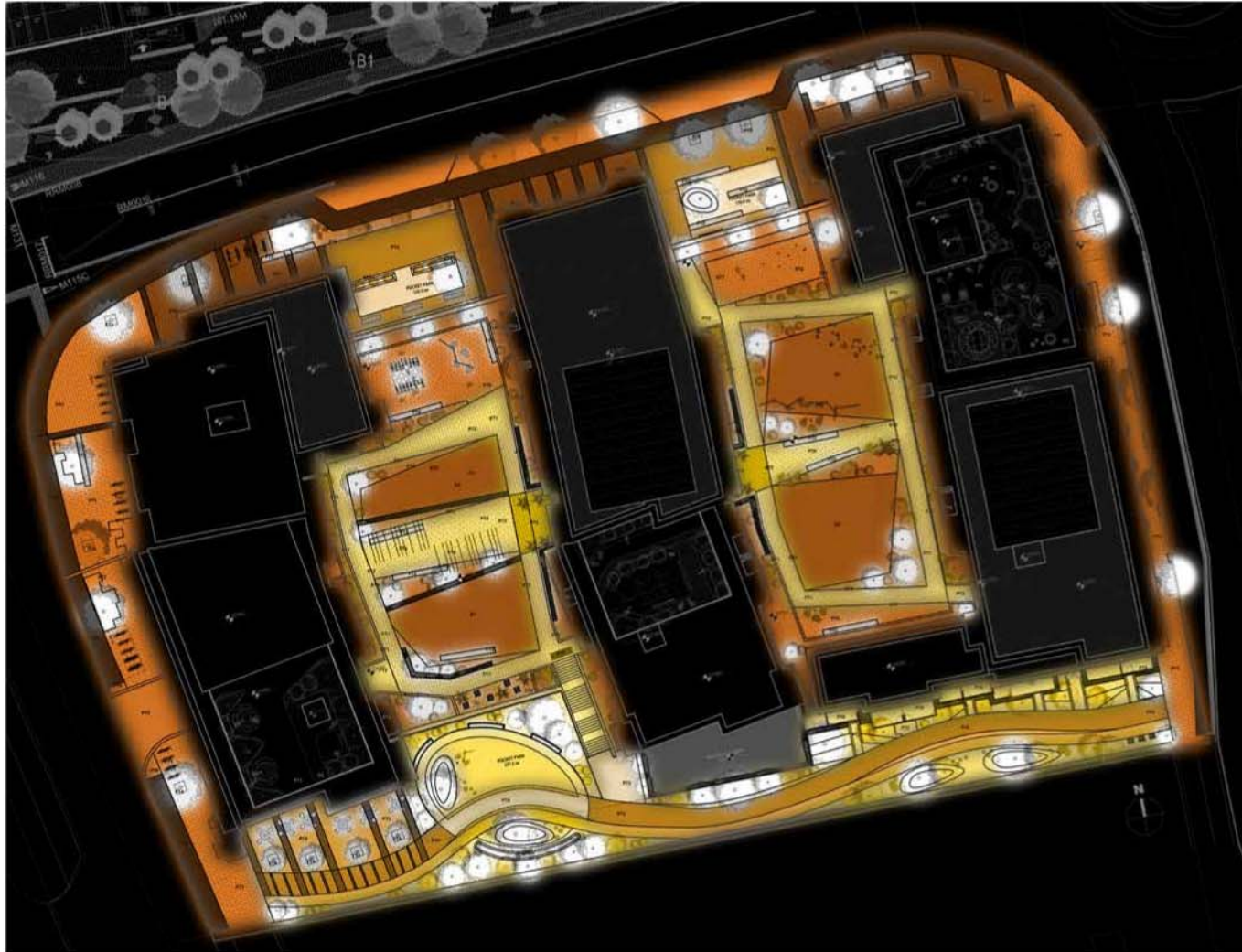
#### **Bat Conservation Ireland, Guidance Notes for: Planners, engineers, architects and developers, 'Bats & Lighting'**

*This document offers guidance on the laws surrounding local bat species and their habitats in Ireland, specifically the 1976 Wildlife Act and 2000 Amendment as well as the EU Habitats Directive. It also covers many aspects of best practice for minimising the impact to bat species when lighting close to roost, foraging habitats, and bat commuting corridors.*

**NOTE ON THE ARBOURY AVIATION REPORT:** *"External Lighting Being close to the centre of the Approach and Take-off Climb Surfaces to and from Runway(s) 10/28, it is recommended that any external lighting (including any street lighting) should be of the cutoff type (i.e. showing no light above the horizontal)." The Lighting design described in this document will comply with this. There are some small elements of feature lighting (the wall grazing for example) where we move outside of the performance described above but these are very 'local' treatments, highly unlikely to cause visual disturbance to passing aircraft. All of the primary, larger lighting treatments in this document will work within the context of the requirement indicated above.' The proposed lighting layout is demonstrated in Figure 8.*

## LIGHTING STRUCTURE - FULL SCHEME

A REPRESENTATION OF THE COMBINED LIGHTING LAYERS AND TEXTURES



*Figure 8. Proposed lighting layout*

## Ecological Assessment Methodology

### Desk Study

A desk study was undertaken to gather and assess ecological data prior to undertaking fieldwork elements.

Sources of datasets and information included:

- The National Parks and Wildlife Service
- National Biological Data Centre
- Satellite, aerial and 6" map imagery
- ESRI (QGIS)

A provisional desk-based assessment of the potential species and habitats of conservation importance was carried in August 2020 and updated in April 2022. Altemar assessed the project, the proposed construction methodology and the operation of the proposed development.

### Field Survey

An initial field survey was carried out by Altemar Ltd. on the 22<sup>nd</sup> September 2020, following completion of the desk-based assessment. An additional site assessment for terrestrial fauna was carried out on the 10<sup>th</sup> April 2022. An additional bat survey was carried out on the 22<sup>nd</sup> April 2022. Site visits were carried out by Bryan Deegan in relation to flora, fauna and included a building and bat emergent surveys. The surveys were carried in line with Guidelines for Ecological Impact Assessment, were carried out in mild dry conditions and covered all the lands within the site outline and the land immediately outside the site. The purpose of the field surveys was to identify habitat types according to the Fossitt (2000) habitat classification and map their extent. In addition, more detailed information on the species composition and structure of habitats, conservation value and other data were gathered.

### Survey Limitations

The field surveys as outlined above were carried out in September 2020 and in April 2022. These dates are within the period for full species assessments of the floral cover in addition to bat and terrestrial fauna surveys. Weather conditions were mild and dry and allowed a bat detector survey to take place. However, September is a poor time to observe terrestrial mammal activity. Early April is a good time to observe mammal activity. The bat surveys were carried out in September 2020 and in April 2022 in line with bat survey guidelines. The building is a modern office space of sound structural design within a brightly lit area and is of limited bat roosting potential. It should be noted that good coverage of the site was possible and there are no limiting factors in relation to the surveys on site.

### Consultation

A request for data in relation to species of conservation interest was submitted to the National Parks and Wildlife Service (NPWS). Data of rare and threatened species were provided by NPWS within 5km of the proposed development and the information from these data is included in the EclA. The National Biological Data Centre records were consulted for species of conservation significance.

### Impact Assessment Significance Criteria

This section of the EclA examines the potential causes of impact that could result in likely significant effects to the species and habitats that occur within the ZOI of the proposed development. These impacts could arise during either the construction or operational phases of the proposed development. The following terms are from EPA EIAR Guidance and are used in the assessment to describe the predicted and potential residual impacts on the ecology by the construction and operation of the proposed development.

#### **Magnitude of impact and typical descriptions**

Magnitude of impact (change)		Typical description
High	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.



Magnitude of impact (change)		Typical description
<b>Medium</b>	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
<b>Low</b>	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring
<b>Negligible</b>	Adverse	Very minor loss or alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.

### Criteria for Establishing Receptor Sensitivity/Importance

Importance	Ecological Valuation
<b>International</b>	Sites, habitats or species protected under international legislation e.g. Habitats and Species Directive. These include, amongst others: SACs, SPAs, Ramsar sites, Biosphere Reserves, including sites proposed for designation, plus undesignated sites that support populations of internationally important species.
<b>National</b>	Sites, habitats or species protected under national legislation e.g. Wildlife Act 1976 and amendments. Sites include designated and proposed NHAs, Statutory Nature Reserves, National Parks, plus areas supporting resident or regularly occurring populations of species of national importance (e.g. 1% national population) protected under the Wildlife Acts, and rare (Red Data List) species.
<b>Regional</b>	Sites, habitats or species which may have regional importance, but which are not protected under legislation (although Local Plans may specifically identify them) e.g. viable areas or populations of Regional Biodiversity Action Plan habitats or species.
<b>Local/County</b>	Areas supporting resident or regularly occurring populations of protected and red data listed-species of county importance (e.g. 1% of county population), Areas containing Annex I habitats not of international/national importance, County important populations of species or habitats identified in county plans, Areas of special amenity or subject to tree protection constraints.
<b>Local</b>	Areas supporting resident or regularly occurring populations of protected and red data listed-species of local importance (e.g. 1% of local population), Undesignated sites or features which enhance or enrich the local area, sites containing viable area or populations of local Biodiversity Plan habitats or species, local Red Data List species etc.
<b>Site</b>	Very low importance and rarity. Ecological feature of no significant value beyond the site boundary

### Quality of Potential Impacts on Biodiversity

	Impact Description
<b>Negative /Adverse Impact</b>	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
<b>Neutral Impact</b>	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
<b>Positive Impact</b>	A change which improves the quality of the environment (for example, by increasing species diversity; or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).

## Significance of Impacts

Significance of Impact	Description of Potential Impact
<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 Effects</b>	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Moderate Effects</b>	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
<b>Significant Effects</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 most of a sensitive aspect of the environment.
<b>Profound</b>	An impact which obliterates sensitive characteristics.

## Duration of Impact

Duration of Impact	Description
<b>Momentary</b>	Effects lasting from seconds to minutes
<b>Brief</b>	Effects lasting less than a day
<b>Temporary</b>	Effects lasting less than a year
<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

## Possibility of Impact

Possibility of Impact	Description
<b>Likely Effects</b>	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
<b>Unlikely Effects</b>	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.

## Results

### Proximity to Designated Conservation Sites

Designated conservation sites (National and international) within 15km of the proposed development are seen in Figures (9-12) and Tables 1 & 2. It should be noted that the proposed development site is not within a designated conservation area. The closest Natura 2000 site is Glenasmole Valley SAC (3.6 km away) (Figure 9). The nearest SPA to the proposed development site is the Wicklow Mountains SPA (7.3 km away) (Figure 10). There is no direct pathway from the development site to these European sites. However, it is considered that there is an indirect hydrological pathway from the proposed development site to designated conservation sites located within Dublin Bay, via the surface water network system, specifically, South Dublin Bay (SAC & pNHA), North Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, North Bull Island (SPA & Ramsar Site), and Sandymount Strand/Tolka Estuary Ramsar Site. Surface water from the proposed development will discharge to the Jobstown Stream/River Dodder, which ultimately outfalls to the marine environment at Dublin Bay. There are no designated Natural Heritage Areas (NHA) within a 15 km radius. However, the nearest Proposed NHA (Dodder Valley pNHA) is located 1.5 km from the proposed development site (Figure 11). The closest Ramsar site to the proposed development site is located 11.3 km away (Sandymount Strand/ Tolka Estuary) (Figure 12). The Jobstown Stream/River Dodder, which is the receiving environment for the surface water discharge from the site, is located approximately 689 m to the south of the proposed development. Watercourses and conservation sites proximate to the proposed development site are seen in Figures 13-17.

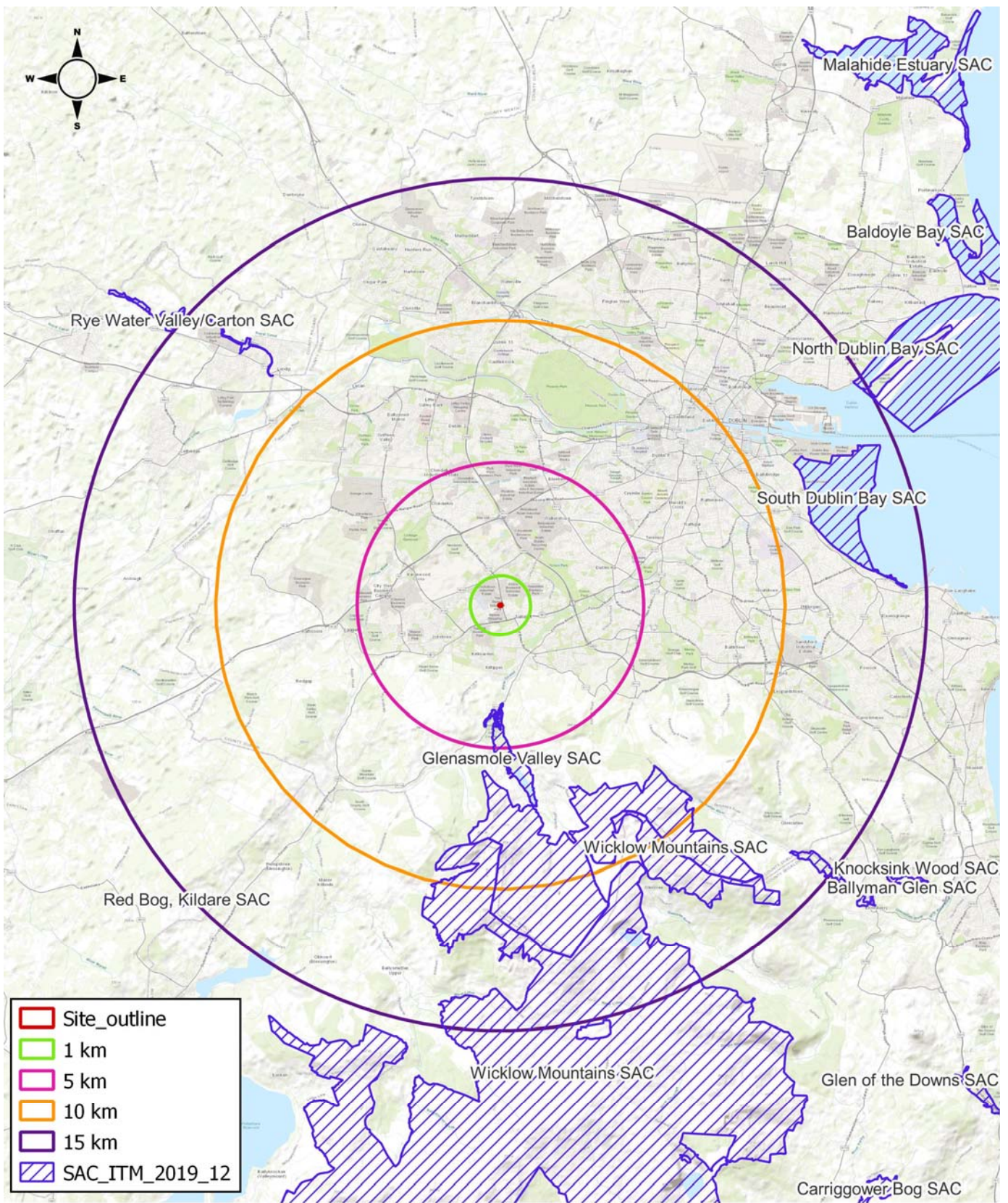
Table 1. European sites within 15km of the proposed site

Designation	European Site	Distance
SAC	Glenasmole Valley SAC	3.6 km
SAC	Wicklow Mountains SAC	5.8 km
SAC	South Dublin Bay SAC	11.2 km
SAC	Rye Water Valley/ Carton SAC	11.3 km
SAC	Knocksink Wood SAC	13.4 km
SAC	North Dublin Bay SAC	14.6 km
SAC	Red Bog, Kildare SAC	14.9 km
SPA	Wicklow Mountains SPA	7.3 km
SPA	South Dublin Bay and River Tolka Estuary SPA	11.3 km
SPA	Poulaphouca Reservoir SPA	14.3 km
SPA	North Bull Island SPA	14.6 km

Table 2. Distances to (proposed) NHAs and Ramsar sites within 15km of the proposed development site

Status	Site Name	Distance
Proposed NHA	Dodder Valley	1.5 km
Proposed NHA	Glenasmole Valley	3.4 km
Proposed NHA	Lugmore Glen	3.2 km
Proposed NHA	Grand Canal	4.2 km
Proposed NHA	Slade of Saggart and Crooksling Glen	5.7 km
Proposed NHA	Liffey Valley	6.9 km
Proposed NHA	Fitzsimon's Wood	9.1 km
Proposed NHA	Royal Canal	9.6 km
Proposed NHA	South Dublin Bay	11.2 km
Proposed NHA	North Dublin Bay	11.7 km
Proposed NHA	Kilteel Wood	12.1 km
Proposed NHA	Dolphins, Dublin Docks	12.8 km
Proposed NHA	Glenree Valley	12.9 km
Proposed NHA	Ballybetagh Bog	13.0 km
Proposed NHA	Knocksink Wood	13.4 km
Proposed NHA	Dingle Glen	13.5 km
Proposed NHA	Santry Demesne	14.4 km
Proposed NHA	Poulaphouca Reservoir	14.5 km
Proposed NHA	Red Bog, Kildare	14.7 km
RAMSAR	Sandymount Strand/ Tolka Estuary	11.3 km
RAMSAR	North Bull Island	14.8 km





Project: Belgard Road  
 Location: Talaght, Dublin 24, Co. Dublin  
 Date: 20th February 2022  
 Drawn By: Bryan Deegan (Altamar)

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**Figure 9.** Special Areas of Conservation (SAC) within 15km of proposed development



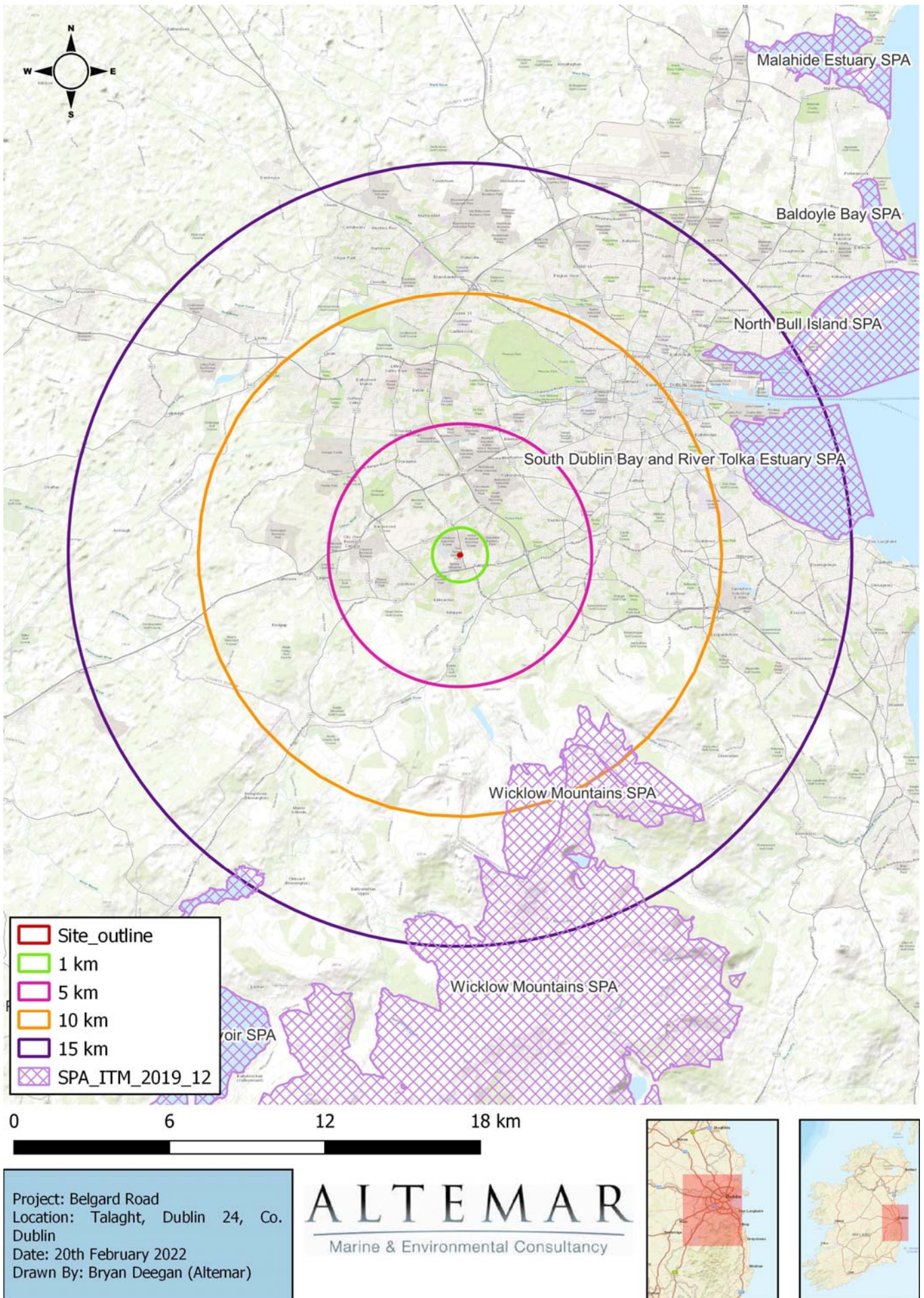
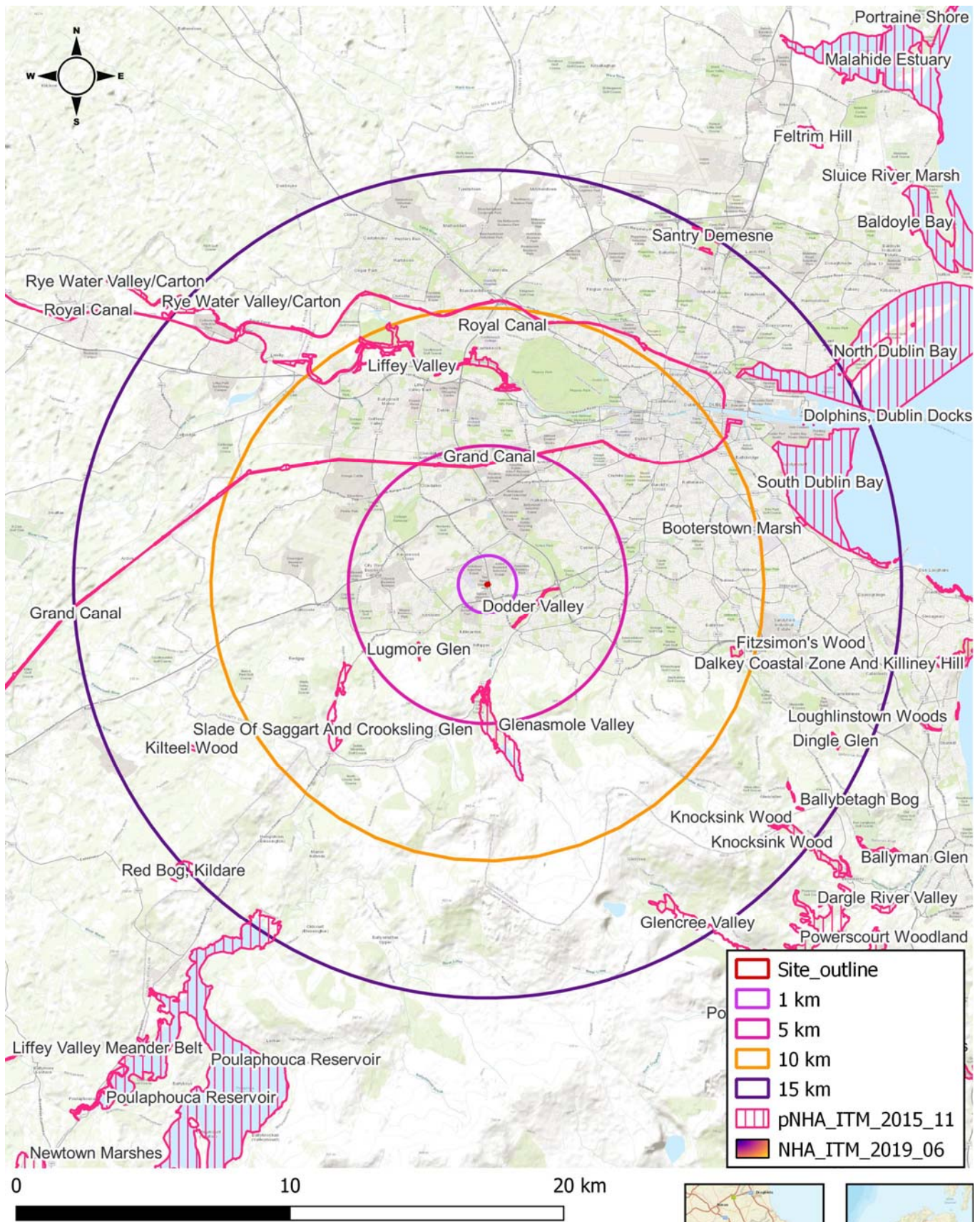


Figure 10. Special Protection Areas (SPA) within 15km of proposed development





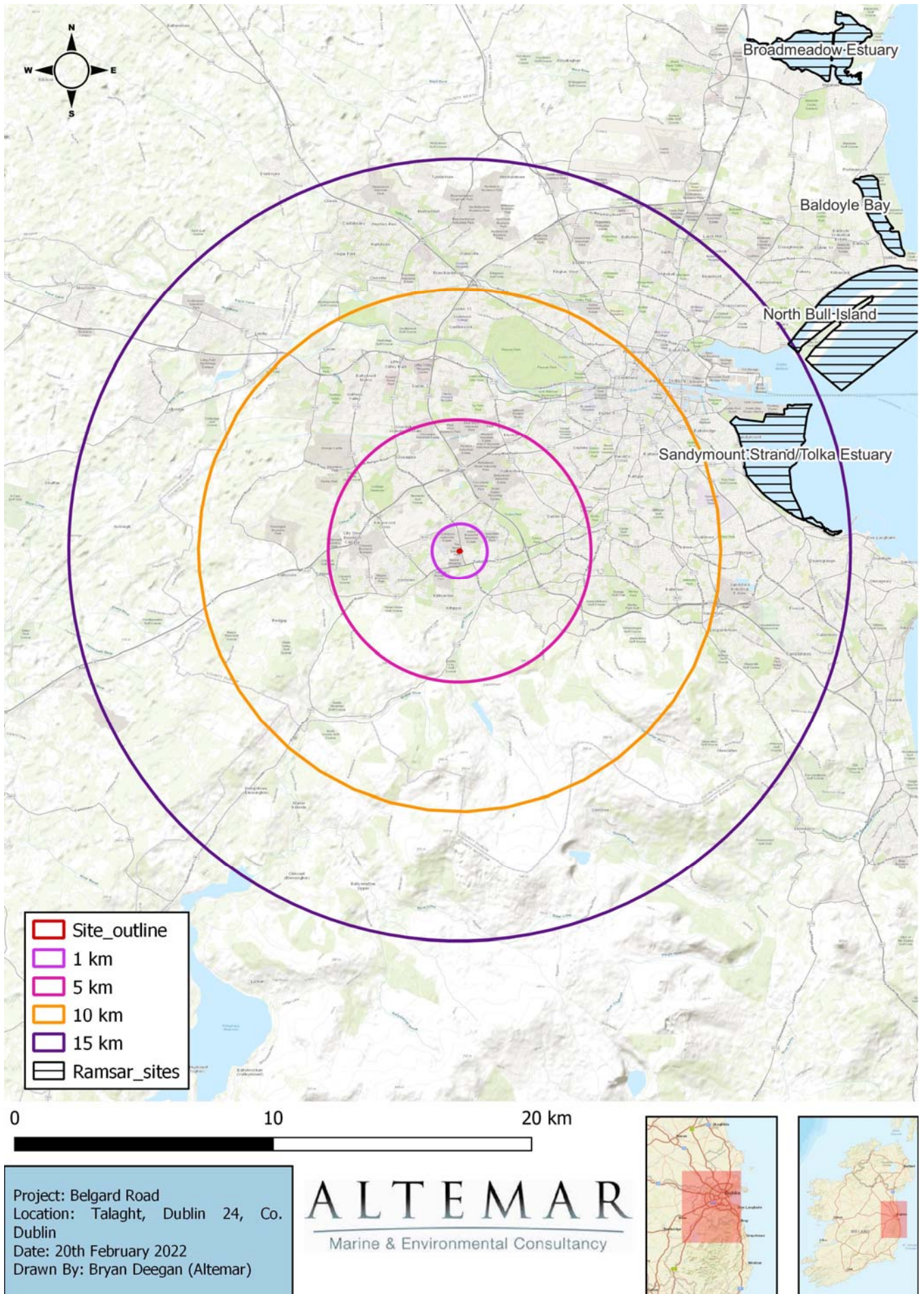
Project: Belgard Road  
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 Date: 20th February 2022  
 Drawn By: Bryan Deegan (Altemar)

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**Figure 11.** Natural Heritage Areas (NHA) and proposed Natural Heritage Areas (pNHA) within 15km of proposed development





**Figure 12.** Ramsar sites within 15km of proposed development





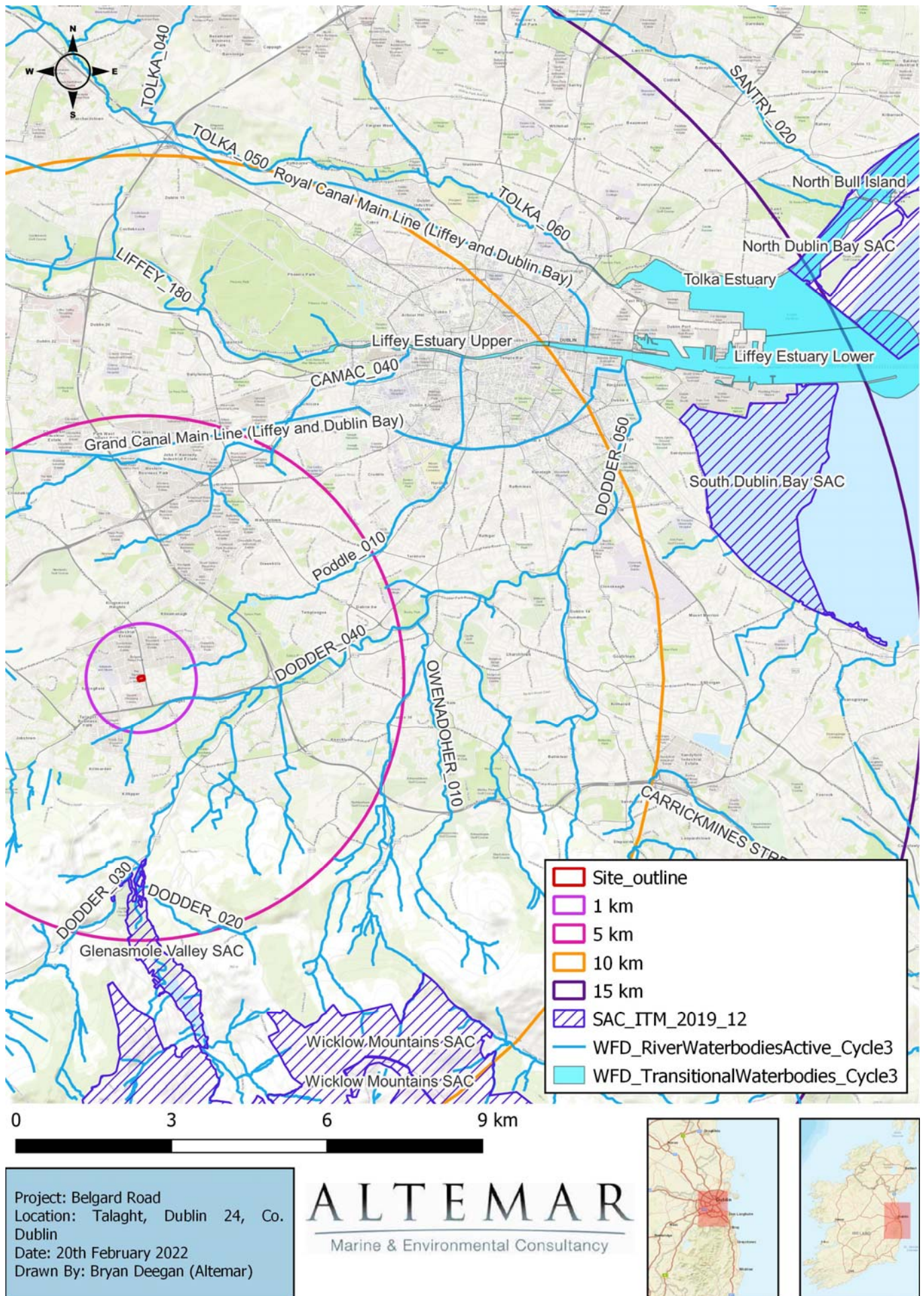
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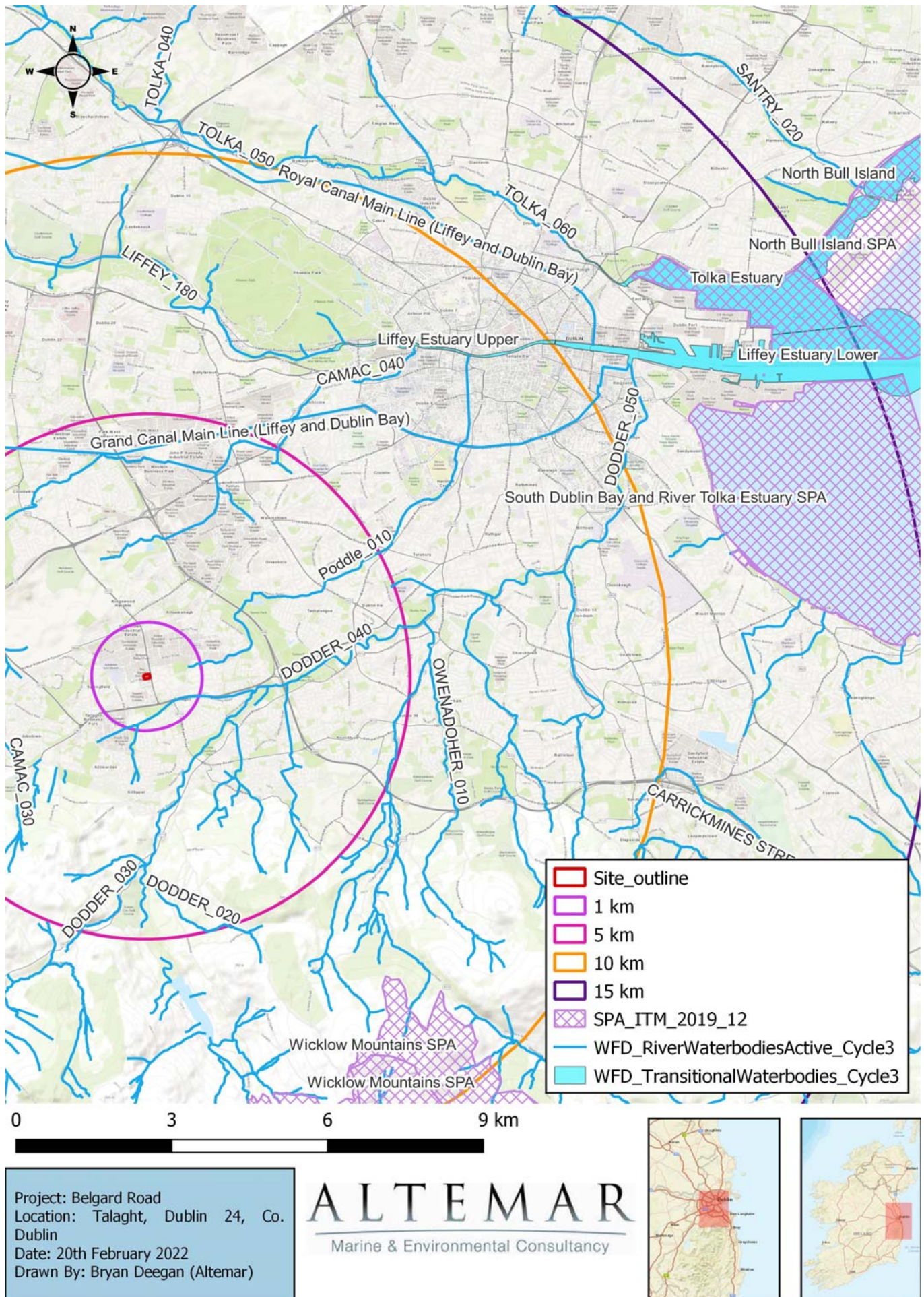
**Figure 13.** Watercourses within close proximity to proposed development





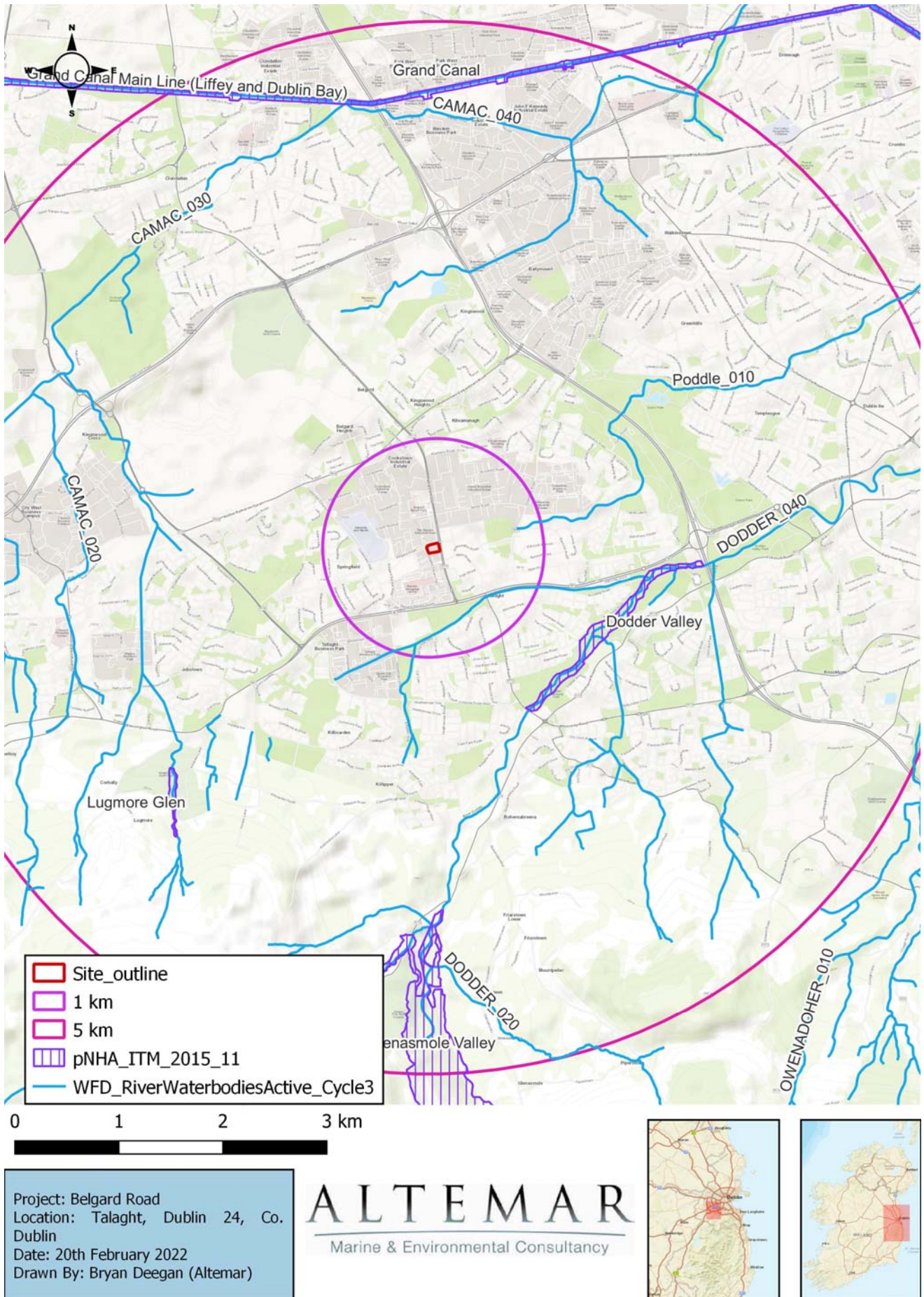
**Figure 14.** Watercourses and potential hydrological pathways to SACs within 15km of the proposed development





**Figure 15.** Watercourses and potential hydrological pathways to SPAs within 15km of the proposed development





**Figure 16.** Watercourses and potential hydrological pathways to pNHAs within 5 km of the proposed development

## Habitats and Species

A site assessment was carried out on the 22<sup>nd</sup> September 2020 and updated on the 10<sup>th</sup> April 2022. Habitats within the proposed site were classified according to Fossitt (2000) (Figure 18) based on the 10<sup>th</sup> April 2022 field survey. Bat surveys were carried out on the 22<sup>nd</sup> September 2020 and the 22<sup>nd</sup> April 2022.

### **BL3- Buildings and artificial surfaces.**

The majority of the site (>95%) comprised of buildings and artificial surfaces of the former ABB offices and stores, hardstanding roads and footpaths. The site is well maintained (frequent herbicide use) and is currently an active commercial site. There are few opportunities for biodiversity on site. Some opportunistic flora species had begun to grow in cracks and in areas at the edge of the hard standing areas. Species included bramble (*Rubus fruticosus* agg.), butterfly-bush (*Buddleja davidii*), nettle (*Urtica dioica*), dandelion (*Taraxacum* spp.), plantains (*Plantago* spp.), thistles (*Cirsium arvense* & *C. vulgare*) and docks (*Rumex* spp.). There were no invasive species on site. The site was assessed for bats roosting and foraging activity. No evidence of bats utilising the buildings or foraging was noted on site in the September 2020 and in the April 2022 surveys.



**Plate 1.** Site Boundary

### **GA2 -Amenity grassland (improved)**

Two small areas of amenity grassland were noted on site. This was regularly maintained and appeared to have been mowed just prior to the site visit. Species in GA2 consisted of white clover (*Trifolium repens*), red clover (*Trifolium pratense*), dandelion (*Taraxacum* spp.), daisy (*Bellis perennis*), plantains (*Plantago* spp.), thistles (*Cirsium vulgare*), docks (*Rumex* spp.), field forget-me-not (*Myosotis arvensis*) and nettle (*Urtica dioica*). In the April 2022 sit visit this habitat had become less managed.





**Plate 2.** Amenity Grassland.

**BC4- Flower beds and borders**

Around the internal perimeter of the site is an area of Flower beds and borders. This consisted of native and non native species including rowan (*Sorbus aucuparia*), maple (*Acer sp.* ), Griselinia (*Griselinia littoralis*), Aaron's beard (*Hypericum calycinum*), New Zealand flax (*Phormium tenax*), cherry Laurel (*Prunus laurocerasus*), cotoneaster (*Cotoneaster horizontalis*), heather (*Calluna vulgaris*) and Cordyline (*Cordyline australis*).



**Plate 3.** Parking Area.





**Plate 4.** North west corner of site (April 2022)

#### **WL2- Treeline**

Outside the main building fence are several treelines. These consist primarily of Maple (*Acer* sp). In several areas bordering the boundary wall was a small maintained European Beech (*Fagus sylvatica*) hedge. The area is well maintained with evidence of herbicide use. Holly (*Ilex aquifolium*), lilac (*Syringa vulgaris*), Cotoneaster (*Cotoneaster horizontalis*), ivy (*Hedera helix*), hoary willowherb (*Epilobium parviflorum*), and bramble (*Rubus fruticosus* agg.) were noted.



**Plate 5.** Western treeline (April 2022)

## Evaluation of Habitats

### Plant Species

No flora or terrestrial fauna species or habitats of National or international conservation importance were noted on site during the surveys. As previously discussed, no flora species of conservation importance were noted on site by the NPWS or NBDC.

### Fauna

#### Bats

Bat surveys of the buildings on site and detector surveys were carried out on site (Appendix I). No evidence of past or current bat presence was noted within or externally on buildings on site. No sign of bats was observed on external walls. No trees of bat roosting potential are on site. No evidence of past or current use by bats of any of the onsite structures or trees was found when surveys were undertaken. No foraging was noted on site. No impacts on bats are foreseen.

#### Amphibians/Reptiles

No amphibians or reptiles were noted on site.

#### Birds

In relation to bird Species, no bird species on Annex I of the EU Birds Directive were noted on site by the NPWS or NBDC. A single herring gull was observed on site on the buildings. This species is amber listed in Ireland. No nesting was observed.

There was a paucity of habitats on site for bird species. However, the following bird species were noted on site (Table 3).

**Table 3:** Bird Species noted in the vicinity of the proposed development.

<b>Common Name</b>	<b>Scientific Name</b>
Herring Gull (on building roof). No juveniles noted.	<i>Larus argentatus</i>
Robin	<i>Erithacus rubecula</i>
Magpie	<i>Pica pica</i>
Hooded Crow	<i>Corvus cornix</i>
Wren	<i>Troglodytes troglodytes</i>





**Figure 18.** Fossitt (2000) Habitat map of proposed development site

## Historic Records of Biodiversity

The National Biodiversity Data Centre's online viewer was consulted in order to determine the extent of biodiversity and/or species of interest in the area. First, an assessment of the site-specific area was carried out by generating a report based on the site outline, however it recorded no species of interest in the site area. Following this a 2 km<sup>2</sup> grid, reference number O02Y, based on the Ordnance Survey Ireland (OSI) Irish Grid classification system was assessed. Table 4 provides a list of all species recorded in the species reports generated for this grid that possess a specific designation, such as Invasive Species or Protected Species.

Table 4. Recorded species, associated designations and grid references

Date of Record	Species Name	Designation
22/02/2020	Common Frog ( <i>Rana temporaria</i> )	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
20/11/2017	Black-headed Gull ( <i>Larus ridibundus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
20/11/2017	Common Coot ( <i>Fulica atra</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Kestrel ( <i>Falco tinnunculus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Kingfisher ( <i>Alcedo atthis</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Linnet ( <i>Carduelis cannabina</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Snipe ( <i>Gallinago gallinago</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
19/10/2015	Common Starling ( <i>Sturnus vulgaris</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
08/07/2015	Common Wood Pigeon ( <i>Columba palumbus</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
31/12/2011	Eurasian Woodcock ( <i>Scolopax rusticola</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
20/11/2017	Herring Gull ( <i>Larus argentatus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/2011	House Martin ( <i>Delichon urbicum</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Date of Record	Species Name	Designation
28/04/2016	House Sparrow ( <i>Passer domesticus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Lesser Black-backed Gull ( <i>Larus fuscus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
20/11/2017	Little Egret ( <i>Egretta garzetta</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species
31/12/2011	Little Grebe ( <i>Tachybaptus ruficollis</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
20/11/2017	Mallard ( <i>Anas platyrhynchos</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
31/12/2011	Mew Gull ( <i>Larus canus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
20/11/2017	Mute Swan ( <i>Cygnus olor</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Northern Lapwing ( <i>Vanellus vanellus</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/2011	Rock Pigeon ( <i>Columba livia</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
20/11/2017	Tufted Duck ( <i>Aythya fuligula</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
05/04/2020	American Skunk-cabbage ( <i>Lysichiton americanus</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species    Invasive Species: Invasive Species >> EU Regulation No. 1143/2014    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
21/09/2017	Butterfly-bush ( <i>Buddleja davidii</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
21/09/2017	Sycamore ( <i>Acer pseudoplatanus</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
21/04/2020	Three-cornered Garlic ( <i>Allium triquetrum</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
06/05/2020	Large Red Tailed Bumble Bee (Bombus (Melanobombus) lapidarius)	Threatened Species: Near threatened
01/08/2019	Megachile (Delomegachile) willughbiella	Threatened Species: Near threatened
28/07/2019	Moss Carder-bee (Bombus (Thoracombus) muscorum)	Threatened Species: Near threatened
30/08/2013	Daubenton's Bat ( <i>Myotis daubentonii</i> )	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
06/01/2016	European Rabbit ( <i>Oryctolagus cuniculus</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
23/07/2017	West European Hedgehog ( <i>Erinaceus europaeus</i> )	Protected Species: Wildlife Acts



Figure 19. Species survey grid reference O02Y, NBDC

An assessment of files received from the NPWS (Code No. 2020\_185) which contain records of rare and protected species and grid references for sightings of these species was carried out as part of this EclA for the proposed development at the ABB Building, Belgard Road. There are no recorded sightings within the site itself, however the following table (Table 5) provides a summary of the species identified, the year of identification/sample, survey name and data ID of sightings locations in the areas surrounding the proposed development.

Table 5. Recorded species within NPWS Records proximate to the site.

Data ID.	Species	Survey Name	Sample Year	Location
3799	Common Frog ( <i>Rana temporaria</i> )	Frog IPCC Data	2002	110m to the south
28272	Irish Stoat ( <i>Mustela erminea subsp. hibernica</i> )	<i>Mustela erminea subsp. hibernica</i> Records	1969	630m to the south east

## Potential Impacts

This report has been prepared to outline the construction and operational phase measures in addition to detailing the potential impacts on sensitive receptors within the Zone of Influence (ZOI) in the absence of mitigation measures.

### Potential Construction Impacts

The proposed construction of the development would potentially impact on the existing ecology of the site and the surrounding area. These potential construction impacts would include impacts that may arise during the site clearance, re-profiling of the site and the building phases of the proposed development. The proposed demolition of existing structures and development of the new onsite buildings will entail the loss of, built land, a small area of amenity grassland, treelines and flower beds and borders. Potential Impacts are assessed below for each of the ecological components.

### Designated Conservation sites within 15km

There is an indirect pathway to designated conservation sites within Dublin Bay (South Dublin Bay (SAC & pNHA), North Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, North Bull Island (SPA & Ramsar Site), and Sandymount Strand/Tolka Estuary Ramsar Site), via the surface and foul water networks for the proposed development. The surface water from the development will be discharged to the public surface water network which discharges to the Jobstown Stream/River Dodder, which ultimately outfalls to the marine environment at Dublin Bay. Mitigation measures are required to ensure that the surface water runoff from the development



entering the surface water network and the River Dodder comply is clean and uncontaminated. However, given the mixing, settlement and dilution that would be seen within the intervening distance to designated site in addition to flocculation within the River Liffey Estuary no significant effects would be foreseen on designated sites in the absence of mitigation measures. Mitigation measures are not necessary for the protection of designated conservation sites. The conclusions in the Hydrological Risk Assessment state there is no perceptible risk to the Dublin Coastal Natura sites based on the source-pathway-linkage assessment undertaken. It is concluded that there are no pollutant linkages as a result of the construction or operation (without mitigation) of the proposed development which could result in a water quality impact which could alter the habitat requirements of the Natura sites within Dublin Bay.

Potential Impacts in the absence of mitigation: Negative /minor adverse Impact/ not significant effects/ short-term/ Likely Effects

### **Biodiversity**

The impact of the development during construction phase will be a loss of existing habitats and species on site. There is a paucity of biodiversity on site. It would be expected that the fauna associated with these habitats would also be displaced. During the site visits no flora, amphibian or mammal species of conservation importance were recorded on site or in NPWS or NBDC records.

#### ***Terrestrial mammalian species***

Loss of habitat and habitat fragmentation may affect some common mammalian species and there is expected to be mortality during construction. Small mammals such as long-tailed field mouse, house mouse, brown rat, and protected species such as pygmy shrew and hedgehog (not noted on site during surveys) may be directly impacted. Frogs and reptiles were not observed on site – There is no pond / wet ditch area within the development area.

Potential Impacts in the absence of mitigation: Neutral Impact/ Not significant/ Short-term/ Unlikely Effects

#### ***Flora***

No protected flora was noted on site. Site clearance will remove the flora species on site.

Potential Impacts in the absence of mitigation: Neutral Impact/ Imperceptible/ Short-term/ Unlikely Effect

#### ***Bat Fauna***

No evidence of past or current use by bats of any of the onsite structures was found. The removal of the existing buildings will have no negative impacts on bats as the structures are not in use by these animals. No foraging was noted on site. The proposed buildings on site are within an existing brightly lit urban setting with no bat activity noted on site. The buildings would be visible to bats and would not be seen to create a collision risk.

Potential Impacts in the absence of mitigation: Neutral Impact/ Not significant/ Unlikely Effects

#### ***Aquatic Biodiversity***

The Dodder River which is located approximately 689 m to the south of the proposed development, is the receiving environment for the surface water discharge from the proposed development. In the absence of mitigation measures there is potential for significant impact on this watercourse, which ultimately outfalls to the marine environment at Dublin Bay and the adjacent designated European sites (South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA).

Potential Impacts in the absence of mitigation: Negative /Adverse Impact/ Significant Effects/ Long-term/ Likely Effects. Robust mitigation is needed in the form of control of silt and petrochemical and dust entering the watercourse during construction, via the surface water discharge.

#### ***Bird Fauna***

Herring gulls are protected under the Wildlife Acts and one herring gull was noted on the roof., but was not observed to be nesting. A preconstruction site assessment should be carried out to assess for nesting birds including herring gull. Removal of woody vegetation on site may lead to the loss of nesting habitat.

Potential Impacts in the absence of mitigation: Minor adverse (if nesting) / Unlikely Effects/ Mitigation required in relation to nesting birds.

## Potential Operational Impacts

Following construction, all surface water will comply with SUDS. Surface water will be discharged at restricted rates after on site attenuation to the surface water network which leads to the River Dodder. Surface water discharge from the site will be developed in accordance with the requirements of the Drainage Division as set out in the Greater Dublin Strategic Drainage Study's Technical Document on New Development' with regard to SUDs and Water Pollution Acts. Foul water will be discharged via a new connection to Ringsend Wastewater Treatment Plant. The biodiversity value of the site would be expected to improve as landscaping matures. The proposed development site is within an existing urban area with public lighting and both domestic and industrial units.

### **Designated Conservation sites within 15km**

The accompanying AA Screening and NIS reports found that significant effects are likely, in the absence of mitigation measures, via the surface water network, for the designated European sites at Dublin Bay. In the absence of mitigation measures, there is the potential for downstream impacts on designated conservation sites located within Dublin Bay (South Dublin Bay (SAC & pNHA), North Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, North Bull Island (SPA & Ramsar Site), and Sandymount Strand/Tolka Estuary Ramsar Site) via surface water drainage to the River Dodder.

Potential Impacts in the absence of mitigation: Negative /minor adverse Impact/ not significant effects/ long-term/ Likely Effects. Mitigation measures are required in relation to petrochemical interception of surface water during operation.

### **Biodiversity**

Biodiversity value of the site will improve as landscaping matures.

#### ***Terrestrial mammalian species***

No protected terrestrial mammals were noted in the vicinity of proposed works.

Potential Impacts in the absence of mitigation: Neutral Impact/ Not significant/ Short-term/ Unlikely Effects

#### ***Flora***

No protected flora was noted on site. Landscaping will increase flora diversity.

Potential Impacts in the absence of mitigation: Neutral Impact/ Imperceptible/ Short-term/ Unlikely Effect

#### ***Bat Fauna***

No evidence of past or current use by bats of any of the onsite structures was found. The removal of the existing buildings will have no negative impacts on bats as the structures are not in use by these animals. No foraging was noted on site. The proposed buildings on site are within an existing brightly lit urban setting with no bat activity noted on site. The buildings would be visible to bats and would not be seen to create a collision risk.

Potential Impacts in the absence of mitigation: Neutral Impact

#### ***Aquatic Biodiversity***

Mitigation measures are required in relation to surface water run off from the site.

Potential Impacts in the absence of mitigation: Negative /Adverse Impact/ Significant Effects/ Long-term/ Likely Effects. Mitigation is needed in the form of control of silt and petrochemical and silt entering the watercourse during construction, via the surface water discharge.

#### ***Bird Fauna***

The proposed development will change the local environment as new structures are to be erected in place of the existing buildings. The onsite buildings will be replaced with new buildings which would provide habitat for herring gulls. The building facades are comprised of a high proportion of solid brick and concrete materials within an existing brightly lit urban environment. The buildings are over 11km from the nearest SPA where wintering birds are a qualifying interest. These buildings would be clearly visible to bird species and would not pose a collision risk.

Potential Impacts in the absence of mitigation: Neutral Impact

## Mitigation Measures & Monitoring

There is an indirect pathway from the proposed development to designated conservation sites at Dublin Bay (South Dublin Bay (SAC & pNHA), North Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, North Bull Island (SPA & Ramsar Site), and Sandymount Strand/Tolka Estuary Ramsar Site). Surface water from the proposed development will be discharged to the River Dodder, which ultimately outfalls to the marine environment at Dublin Bay. Mitigation measures will be implemented to ensure the protection of the water quality entering the surface water network. Mitigation measures are outlined in Table 6.



**Table 6. Mitigation Measures.**

**Mitigation**

**Construction Phase Mitigation**

- A project ecologist will be appointed to oversee all enabling and construction works.
- Confirmatory mammal surveys will be carried out pre-construction.
- Local watercourses (River Dodder) and drains will be protected from dust, silt and surface water throughout the works.
- Mitigation measures on site include dust control, stockpiling away from drains leading to public surface water networks
- Stockpiles and runoff areas following clearance will have suitable barriers to prevent runoff of fines into the drainage system and watercourses.
- Fuel, oil and chemical storage will be sited within a bunded area. Bunds will be kept clean and spills within the bund area will be cleaned immediately to prevent groundwater contamination. Any water-filled excavations that require pumping will not directly discharge to the surface water network. Prior to discharge of water from excavations adequate filtration will be provided to ensure no deterioration of water quality.
- Stockpiles and runoff areas following clearance will have suitable barriers to prevent runoff of fines into the drainage system
- Petrochemical interception and bunds in refuelling area
- Maintenance of any drainage structures (e.g. de-silting operations) will not result in the release of contaminated water to the surface water network.
- Sufficient onsite cleaning of vehicles prior to leaving the site and on nearby roads, will be carried out, particularly during groundworks.
- The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained.
- The site compound will include a dedicated bund for the storage of dangerous substances including fuels, oils etc. Refuelling of vehicles/machinery will only be carried out within the bunded area.
- A project ecologist will be appointed and be consulted in relation to all onsite drainage during construction works.
- Concrete trucks, cement mixers or drums/bins are only permitted to wash out in designated wash out area greater than 50m from sensitive receptors including drains and drainage ditches.
- Spill containment equipment shall be available for use in the event of an emergency. The spill containment equipment shall be replenished if used and shall be checked on a scheduled basis.
- All site personnel will be trained in the importance of good environmental practices including reporting to the site manager when pollution, or the potential for pollution, is suspected. All persons working on-site will receive work specific induction in relation to surface water management and run off controls. Daily environmental toolbox talks / briefing sessions will be conducted to outline the relevant environmental control measures and to identify any environment risk areas/works.
- Environmental risks due to construction and operation of the proposed development do potentially exist, particularly in relation runoff from sloping site, drains that could lead to the watercourse. Ecological supervision will be required during excavation and enabling works stages.
- All oils, fuels and other hazardous liquid materials shall be clearly labelled and stored in an upright position in an enclosed bunded area within the proposed development site compound. The capacity of the bunded area shall conform with EPA Guidelines – hold 110% of the contents or 110% of the largest container whichever is greater;
- Drip trays will be turned upside down if not in use to prevent the collection of rainwater. Waters collected in drip trays will be assessed prior to discharge. If classified as contaminated, they shall be disposed by a permitted waste contractor in accordance with current waste management legal and regulatory requirements;
- Plant and equipment to be used during works, will be in good working order, fit for purpose, regularly serviced/maintained and have no evidence of leaks or drips;
- No plant used shall cause a public nuisance due to fumes, noise, and leakage or by causing an obstruction;

**Table 6. Mitigation Measures.**

**Mitigation**

- Re-fuelling of machinery, plant or equipment will be carried out in the site compound as per the appointed Construction Contractor re-fuelling controls;
- The appointed Construction Contractor EERP will be implemented in the event of a material spillage;
- All persons working will receive work specific induction in relation to material storage arrangements and actions to be taken in the event of an accidental spillage. Daily environmental toolbox talks / briefing sessions will be conducted for all persons working to outline the relevant environmental control measures and to identify any environment risk areas/works.

**Operational Phase Mitigation**

- A project ecologist will be appointed to oversee completion of all landscape and drainage works.
- Petrochemical interception will be inspected by the project ecologist.

**Birds**

- “Relevant guidelines and legislation (Section 40 of the Wildlife Acts, 1976 to 2012) Should this not be possible, a pre-works check by a qualified ecologist should be undertaken to ensure nesting birds are absent.
- 10 Nest boxes placed on site to compensate for resource loss.
- Prior to the demolition of the building the roof will be inspected by an ecologist to inspected for nesting/fledgling herring gulls. If these are found to be present NPWS will be contacted and NPWS conditions applied in relation to the progression of works on site.

**Bats**

- An ecologist will carry out a Pre Construction building inspection for bats
- Compliance with conditions of the bat derogation licence (if required upon inspection) (Currently there is no evidence of bats on site).
- Four bat boxes will be placed on site as an enhancement measure.

**Mammals**

- A pre-construction inspection will be conducted to ensure that there are no badger setts in any areas of scrub on site. Badgers may also construct new setts in the period between this survey and development proceeding.



## Residual Impact (post mitigation)

With the successful implementation of mitigation measures to limit surface water impacts on the River Dodder, which is the receiving environment for surface water discharge from the site, biodiversity mitigation/supervision, no significant impacts are foreseen from the construction or operation of the proposed project on terrestrial or aquatic ecology.

The construction and operational mitigation proposed for the development satisfactorily addresses the mitigation of potential impacts on terrestrial biodiversity, aquatic biodiversity through the application of the standard construction and operational phase controls as outlined above. In particular, mitigation measures to ensure compliance with Water Pollution Acts and prevent silt and pollution entering the River Dodder will satisfactorily address the potential impacts on downstream biodiversity. The River Dodder outfalls to the marine environment at Dublin Bay. Mitigation measures, are therefore, required to ensure that no significant impacts occur on designated conservation sites in Dublin Bay (South Dublin Bay (SAC & pNHA), North Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, North Bull Island (SPA & Ramsar Site), and Sandymount Strand/Tolka Estuary Ramsar Site). A stage 2 NIS has been prepared, and mitigation measures are therefore required to ensure that no adverse effects on the integrity of the European sites. It is essential that these measures outlined are complied with, to ensure that the proposed development does not have “downstream” environmental impacts and significant impacts on biodiversity on site.

## Cumulative Impacts

There are numerous development proposals located in the areas surrounding the subject site that have been granted permission. The following is a list of planning application(s) as identified on the Department of Housing, Local Government and Heritage’s ‘National Planning Application Database’ portal:

*Table 5. Cumulative effects evaluated*

Application Number	Development Description	Development Address	Decision	Grant Date
SD21A/0123	Sliding steel entrance gate to the main entrance; partial demolition of a section of existing boundary wall; construction of new site entrance piers and the extension of the existing perimeter railings to meet the new piers; 2 new bicycle shelters and all associated site development works.	Killakee House, Belgard Square, Tallaght, Dublin 24	GRANT PERMISSION	2022-01-17
SD21A/0104	Footbridge from car park of university campus to Airton Close.	TU Dublin, Tallaght & Airton Close, Tallaght, Dublin 24	GRANT PERMISSION	2022-01-14
SD21A/0174	Change of use of part of existing unit from industrial use for use as a restaurant facility with sit-down facility, cafe and deli with take away produce (teas, coffees, sandwiches etc) over two floors and all associated site works.	Unit 3, Airton Road, Tallaght, Dublin 24.	GRANT PERMISSION	2021-09-23
SHD3ABP-309916-21	Demolition of the existing industrial and commercial office buildings totalling c.4,628sqm; Construction of a Build-to-Rent Housing Development comprising 170 apartment units and crèche arranged in 2 blocks across 4-7 storeys over basement car park (total gross floor area c.13,880sq.m excluding basement)	Glen Abbey Complex, Belgard Road, Cookstown Industrial Estate, Dublin 24, D24 W2XA	GRANT PERMISSION	2021-09-21
SD21A/0134	Amendments to previously granted permission (SD20A/0017) comprising of alterations to façade; installation of roof lights and PV panels.	Unit 2, The Square Industrial Complex, Belgard Square East, Tallaght, Dublin 24	GRANT PERMISSION	2021-07-19
SD21A/0030	Demolition of existing fire damaged commercial unit and site clearance including all associated site works.	Unit 74, Cookstown Road, Cookstown Industrial Estate, Dublin 24	GRANT PERMISSION	2021-04-12
SD21A/0013	Installation and operation of a natural gas combined heat and power system and the associated infrastructure.	Land at Tallaght University Hospital, Tallaght, Dublin 24	GRANT PERMISSION	2021-03-21

Application Number	Development Description	Development Address	Decision	Grant Date
SD21A/0014	Construction of a new two storey extension adjacent to the existing Pharmacy Department located on the east side of the campus to provide a new Aseptic Pharmacy Unit incorporating laboratory areas; support rooms and first floor plantroom; external stairway; new exit door from the Pharmacy corridor to the adjacent service yard; new exit door from the delivery bay area to the hospital delivery yard and associated site and landscaping works.	Tallaght University Hospital, Belgard Square North, Tallaght, Dublin 24	GRANT PERMISSION	2021-02-25
SHD3ABP-308398-20	(i) Demolition of the existing industrial buildings, (ii) construction of: (a) 252 'build-to-rent' apartments in a two to nine storey development. Each apartment has associated private open space in the form of a ground floor terrace or a balcony and has access to 613sq.m of internal communal amenity space (including a concierge and management facilities, communal gym, flexible meeting rooms, library/co-working space, lounge, cinema/multimedia room and external covered game area); 1792sq.m of external communal amenity space at first and second floor levels; and a 65sq.m external covered communal amenity area at first floor level.	Units 66 & 67 Fourth Avenue, Cookstown Industrial Estate, Tallaght, Dublin 24	GRANT PERMISSION	2021-01-28
SD20A/0050	Three storey apartment building containing six apartments with external terraces/private gardens (3 x two bed & 3 x three bed duplex) & one end of terrace two storey house (two bed), landscaping of site and play area, footpath, bin stores, eight car parking spaces, eighteen bicycle parking spaces and all associated site works.	Colberts Fort, Belgard Road, Tallaght, Dublin 24.	GRANT PERMISSION	2021-01-18
SD20A/0289	Alterations to existing external service area to the north eastern side of The Square Shopping Centre at the entrance to the existing service yard comprising of construction of an external plant area (c.135sq.m) enclosed by 2.4 metre high galvanised fencing to accommodate an Air Handling Unit (AHU) and a Chiller Unit ancillary to the shopping centre; new flat roof boiler room building (c.34sq.m gross floor area) within the proposed new enclosed plant enclosure; installation of a metal frame (2.4 metres wide x 1 metre high and located 2-3 metres above the ground supported by metal stilts) to facilitate the connection of the Air Handling Unit and Chiller within the plant area to the covered service yard area; replacement of mesh panels on existing wall on the western and norther side of the service yard with metal louvered panels; all associated site and development works.	The Square Shopping Centre, Tallaght, Dublin 24	GRANT PERMISSION	2021-01-08
SD20A/0201	A telecommunications field technician apprenticeship training area, comprising of a compound, 35m by 25m enclosed by a 3m perimeter fence. The area will contain a number of street cabinets, underground access chambers, underground ducting, half height training poles and a storage unit.	Technological University Dublin, Old Blessington Road, Tallaght, Dublin 24, D24 FKT9	GRANT PERMISSION	2020-12-18
SD20A/0148	Retention for internal mezzanine storage area (132sq.m); single storey compressor room extension (12sq.m) to rear of existing building and single storey packaging shed extension (38sq.m) to side of existing building.	Unit 30, Second Avenue, Cookstown Industrial Estate, Dublin 24	GRANT PERMISSION FOR RETENTION	2020-08-16
SD20A/0145	Subdivision of the existing retail department store (Unit 116 - 5,396sq.m. - formerly Debenhams) to comprise 2 retail units - 116A (2,431sq.m) and 116B (2,270sq.m) and new service corridor (176sq.m) to the rear of the proposed unit 116B to provide access to the existing service yard; associated modifications including the removal of the existing mezzanine floor within Unit 116 (497sq.m); creation of new retail frontage within the internal mall and associated signage; revisions to existing retail Unit 117 (113sq.m) and 118 (102sq.m) to form a single amalgamated unit (169sq.m) and creation of additional mall floor space (47sq.m) arising from the unit reconfiguration; all associated site and development works including minor revisions to the layout of the existing service yard.	Units 116, 117 and 118, The Square Shopping Centre, Tallaght, Dublin 24	GRANT PERMISSION	2020-08-12



Application Number	Development Description	Development Address	Decision	Grant Date
SD20A/0088	Replacement of a portion of the facade; removal of escalators and infill of voids at first floor (ex. mezzanine 93.5sq.m and second floor (ex. food courts 64sq.m); change of use of the mezzanine floor of the previously approved and constructed retail known as C4 to a Primary Care Centre (Class 8); change of use for ground floor, first floor and second floor of the previously approved and constructed retail unit known as Food Court, to a Primary Care Centre (Class 8).	Russell Centre, Tallaght Cross West, Dublin 24	GRANT PERMISSION	2020-07- 16
SD20A/0105	Revisions to previously permitted internal modifications as approved under Ref. SD18A/0399 resulting in the reductions in the kiosk zone at Level 2 only by 196sq.m (from 1073sq.m to 877sq.m) to accommodate a new partially enclosed restaurant/café unit (196sq.m) and associated setting; the new restaurant and seating area will correspond with the footprint of the existing Units 260/262 and 263 and will contain associated facilities including a kitchen, front and rear counters, condiment unit, dining tables, chairs, booths and benches; associated signage and development works.	The Square Shopping Centre, Tallaght, Dublin 24	GRANT PERMISSION	2020-07- 16
SD19A/0394	Mixed use commercial extension (9,956sq.m gross floor space) to the southern side of The Square Shopping Centre and a new public plaza and all associated site and development works including new signage; Level 1 - no changes; Level 2 - removal of southern mall entrance lobby and construction of new extension to existing Level 2 mall to include 6 retail units (2,611sq.m), a food hall/market hall area for multiple restaurant/food and beverage type uses with associated seating areas (2,041sq.m), a restaurant/cafe unit (67sq.m) and associated ancillary accommodation and circulation (1,534sq.m) and plant rooms (176sq.m) and introduction of new internal service corridor; Level 2 extension is replacing surface parking spaces (140) to the south of the shopping centre and an existing parking area (34 spaces) to the east of the proposed extension is to be reconfigured; creation of Level 3 entrance and creation of new public plaza to replace roof car park (111 spaces) and the new outdoor public plaza (0.74ha) will be used for multi-purpose events, civic and recreational uses and retail and food and beverage concessions involving temporary moveable structures erected on a seasonal basis; the creation of the new Level 3 entrance involves replacement of existing retail unit at Level 3 (Unit 307A) with mall area to include flexible kiosk type retail concession areas; 2 buildings accommodating 9 restaurant/bar units (3,324sq.m) and ancillary accommodation (175sq.m) and associated outdoor seating areas in the new plaza on south facing terraces; Level 4 - ancillary accommodation and service areas (28sq.m) on roof of 2 restaurants buildings within provision for screened plant areas and solar panels; the proposed extension has a maximum building height of 18 metres above existing ground levels; the extension is to replace and supersede the Plot B development previously permitted under Reg. Ref. SD13A/0192 (Bod Ref. PL06S.243280) which included a gross floor space of 5,684sq.m; the permitted northern extension (Plot A) remains unchanged. Permission is sought to amend Condition 3(a) of the Reg. Ref. SD13A/0132 (Bord Ref. PL06S.243280) to facilitate the construction of the proposed southern extension prior to the permitted northern extension (Plot A) subject to a phasing programme to be agreed.	The Square Shopping Centre, Tallaght, Dublin 24	GRANT PERMISSION	2020-06- 17
SD20A/0010	Change of use from office to medical/dentist use with revisions to front elevation.	Unit 8, High Street, Tallaght, Dublin 24.	GRANT PERMISSION	2020-03- 11
SD19A/0397	Change of use of existing open plan 997sq.m shell and core retail unit to the use as a spa/recreational facility to include swimming pool area; relaxation areas; treatment rooms; associated office/administration areas; changing facilities; internal dining/restaurant area; associated kitchen facilities; plant areas; associated ducting/extraction vents with associated elevational changes; connections to all services and site development works;	Unit 11, Tallaght Retail Centre, Tallaght, Dublin 24	GRANT PERMISSION	2020-02- 20

Application Number	Development Description	Development Address	Decision	Grant Date
	new internal mezzanine floor to provide additional 602sq.m at new first floor level and on-street bicycle parking outside the building for 18 bicycles at the corner of Abberley Square and Abberley Square East.			
SHD3ABP-305763-19	Demolition of the existing industrial buildings on site (4,800sq.m) and the construction of 2 blocks comprising: 328 apartments (93 1-bed, 222 2-bed and 13 3-bed), ancillary residential support facilities and commercial floorspace measuring 31,147sq.m gross floor space above a single basement level measuring 5,861sq.m. Block A is a part-5 to part-7 storey (13,710sq.m) over basement block comprising 149 apartments with office space (222sq.m). Block B is a part-6 to part-9 storey (17,437sq.m) over basement block comprising 179 apartments, 2 double-height retail/commercial (Class 1/Class 2) units (354sq.m), a café/restaurant (313sq.m), a creche (360sq.m), internal residents amenity area (644sq.m) at ground floor including reception (37.7sq.m), residents lounge (91.3sq.m), private dining area (52.6sq.m), co-working space (45.5sq.m), games room (47.3sq.m), gym (80sq.m) and communal lounge (220sq.m) at 6th floor level. The development also consists of the provision of a landscaped courtyard; public plaza at the corner of Airtion and Belgard Road; pedestrian access from Airtion Road to the Technological University campus; balconies; landscaped roof terrace at 6th floor level (7th Storey) of Block B (671sq.m); 184 car parking spaces at basement level including 14 club car spaces, 10 disabled parking spaces and 4 creche parking spaces; 727 basement and surface bicycle parking spaces; 4 motorbike parking spaces; bin storage; boundary treatments; green roofs; hard and soft landscaping; plant; lighting; Vodafone cabin sub-station; ESB sub-stations, switch rooms and generators; and all other associated site works above and below ground.	Site at the corner of Airtion Road and Belgard Road, Tallaght, Dublin 24, D24 HD35	GRANT PERMISSION	2020-02-20
SD19A/0390	Change of use from 2 existing office units to 2 two bedroom student accommodation units located at first floor level including minor internal modification works and retaining the existing entrances off the main courtyard.	17/18, Tramway Court, Old Blessington Road, Tallaght, Dublin 24	GRANT PERMISSION	2020-02-18
SD19A/0367	Demolition of existing commercial building (736sq.m) and construction of a single storey cafe/restaurant (79sq.m); single storey bicycle workshop building (32sq.m); improved public realm area to include seating; bicycle parking (60 spaces) and hard and soft landscaping and all associated site and development works.	An Post Building, The Square Shopping Centre, Belgard Square East, Tallaght, Dublin 24	GRANT PERMISSION	2020-01-27
SD19A/0299	(a) Partial change of use at ground floor from 324sq.m light industrial warehouse use to office & laboratory; (b) construction of a new internal first floor level, containing 120sq.m. office space; (c) 7 new windows at first floor level on the front elevation (east facade); (d) removal of existing roller shutter on the front elevation (east facade) and replacement with new door & glazing panel & new signage on the front elevation (east facade); (e) 3 new windows at ground floor level at side elevation (south facade); (f) new door at ground floor level at side elevation (south facade); (g) roller shutter door at rear elevation (west facade); (h) construction of new 13.8sq.m. external enclosed covered storage to rear elevation (west facade); (i) new door on the rear elevation (west facade) and all associated site works.	Unit 5, Airtion Close, Airtion Road, Tallaght, Dublin 24	GRANT PERMISSION	2019-11-18
SD19A/0085	Demolition of a single storey modular building extension to the rear (north) of the existing facility building and the provision of a 26.68m x 7.43m x 3.51m high (gross floor area of 187sq.m) single storey modular building and associated works to the rear (north) of the light industrial facility.	Broomhill Industrial Estate, Broomhill Road, Dublin 24	GRANT PERMISSION	2019-08-26
SD19A/0152	(A) Construction of a 4 storey general teaching building (c.5,211sq.m) comprising teaching spaces, class kitchens and restaurant, lecture theatres, labs and computer rooms, breakout spaces and ancillary service area with roof level plant; (B)	Tallaght Campus, Old Blessington	GRANT PERMISSION	2019-06-27



Application Number	Development Description	Development Address	Decision	Grant Date
	landscaping works including the provision of a kitchen garden, orchard and wildflower meadow with beehives; (C) 28 covered cycle parking spaces; (D) all associated site development, site services, landscaping and boundary treatment works.	Road, Tallaght, Dublin 24		
SD19A/0118	Modifications to external facade facing Westpark including double height glazing; signage panel; relocation of entrance door and ATM and blocking up existing entrance door.	8, Old Bawn Road, Tallaght, Dublin 24	GRANT PERMISSION	2019-05-30
SHD3ABP-303306-18	Development of 438 apartment units consisting of 158 no. 1 beds, 230 no. 2 beds and 50 no. 3 beds (total apartment units include 8 no. live/work units with a total c. 509 sqm work areas at ground floor) and c. 732 sqm of tenant/resident service amenities all within blocks A1, A2, A3 and B1. Block B2 to comprise a 403 bedspace student accommodation scheme and associated student amenity and staff facilities (c.815 sqm); childcare facility (c.380 sq.m) and external playing area (c. 242sq.m); 6 retail/commercial units (c. 632sq.m in total); security room (c.52sq.m); 107 car parking spaces below podium; 22 car parking spaces at surface level; 1227 bicycle parking spaces; 4 semi-private courtyards of c. 5,516sq.m; public plaza; public realm & landscaping (c.7,442sq.m).	Junction of Belgard Road and Belgard Square North, Tallaght, Dublin 24	GRANT PERMISSION	2019-04-15
SD19A/0052	Internal reorganisation of the existing ground floor bar/dining/reception area resulting in the relocation of the main entrance door and reception area; provision of a toilet; an increase in area of the existing bar/dining area of 35sq.m; change of use from retail to a 12sq.m kitchen store, accessed from the existing kitchen; 895sq.m hotel extension, providing 24 bedrooms and ancillary spaces is proposed on the first floor consisting of the change of use of 790sq.m retail and a 105sq.m extension within the existing perimeter; 12 residents and 3 staff car parking spaces are provided within the existing basement car park, the allocated spaces are currently associated with first floor retail use; an additional 4 bicycle spaces have been provided as an addition to the current provision.	The Glashaus Hotel, Belgard Square West, Tallaght, Dublin 24	GRANT PERMISSION	2019-04-15
SD18B/0438	Construction of a part single, part two storey attached rear extension; extended front driveway entrance; accessible ramp providing access to new replaced front door; internal alterations and all ancillary works.	40, Westpark, Tallaght, Dublin 24	GRANT PERMISSION	2019-03-20
SD18A/0435	(1) A Sport Science, Health and Recreation Building containing a single storey sports hall and teaching accommodation and associated facilities arranged over two storey plus roof plant areas with a total floor area 3,175sq.m; grass playing pitch 140 x 90m with flood lighting; score boards; 1m high spectator barrier; 12m high x 25m wide ball catch nets behind goal posts and spectator seating; (2) external landscaped quadrangle; pedestrian areas; footpaths and landscaping; linking existing facilities with the development; building signage; 56 covered bicycle parking spaces; covered walkways and demolition of 46 existing car parking spaces and associated site works; (3) enhanced pedestrian crossing facilities at Greenhills Road access, comprising new raised entry treatment across access and pedestrian refuge island on Greenhills Road with associated road markings and traffic signs. The application site is centrally located within the ITT campus which is bounded by Belgard Road to the west, industrial buildings accessed off Airton Road to the north, Greenhills Road to the east and to the south by Old Blessington Road and the grounds of the Old Priory, Tallaght.	Institute of Technology, Old Blessington Road, Tallaght, Dublin 24.	GRANT PERMISSION	2019-02-08
SD18A/0370	(i) Change of use from taxi office to restaurant/café; (ii) shopfront signage and all ancillary works necessary to facilitate the development.	Unit 4, Block 6, Tallaght Retail Centre, High Street, Tallaght, Dublin 24	GRANT PERMISSION	2018-12-04

Application Number	Development Description	Development Address	Decision	Grant Date
SD13A/0192/EP	Development to consist of the phased construction of two independent extensions to the existing shopping centre (The Square) with a total gross floor area of 21,490sq.m. (including floor area of car parking of 22,861sq.m.; the total development area is 44,351sq.m.)	The Square Shopping Centre, Belgard Square, Tallaght, Dublin 24	GRANT EXTENSION OF DURATION OF PERMISSION	2018-11-21
SD18A/0219	(1) The construction of a new two storey c.23,283sq.m building for use as data storage facilities containing: data storage rooms, electrical & mechanical plant rooms and support areas including offices and welfare facilities, loading bays, back-up generators and water storage tanks, mechanical plant at roof level is screened from view on all sides by permanent screens; (2) 27 car parking spaces; (3) amendment to previously permitted site landscaping, boundary treatment and associated site infrastructure (planning permission Reg. Ref. SD16A/0093) and (4) the demolition of a single storey building (floor area of 310sq.m).	Former Jacob's/Allied Biscuits Site, Belgard Road, Tallaght, Dublin 24, D24 DA27	GRANT PERMISSION	2018-08-07
SD18A/0197	Construction of a new car park to provide 85 parking spaces, controlled taxi-rank, covered bicycle parking zone, new covered walkway located adjacent to the main hospital entrance together with alterations to the existing road, footpath, retaining wall & car park to provide an additional 5 disabled use bays including all associated site works.	The Adelaide & Meath Hospital, Incorporating The National Children's Hospital, (Tallaght Hospital), Tallaght, Dublin 24	GRANT PERMISSION	2018-07-20
SD18A/0043	Sub-division and change of use of existing Unit F-05 from Hotel/Bar/Restaurant use at ground floor level (260sq.m) and mezzanine floor level (390sq.m) to office unit at ground floor level (225sq.m) and to NCBI Offices use and associated staff facilities at mezzanine floor level (390sq.m) through new access doors on the northern elevation of the existing building, new access stairs and existing lift to mezzanine floor level (35sq.m) at ground floor level, extend the mezzanine floor area (48sq.m) within the existing approved development Reg. Ref. No. SD02A/0392 and SD08A/0197.	Block F, Belgard Square North and West, Tallaght Town Centre, Dublin 24	GRANT PERMISSION	2018-04-04
SD17A/0439	Construction of a cafe/restaurant unit with an overall height of 4.05m and a total GFA of 175sq.m to be located in the central section of the car park of Belgard Retail Park. The proposal includes signage for the unit, associated outdoor seating area, bin store, landscaping and all associated site works. The development proposes the removal of 40 existing car parking spaces and provision of 8 new car parking spaces to the south of the proposed cafe/restaurant unit. It is also proposed to provide a 2m wide footpath from the proposed cafe/restaurant unit to the retail warehouse units.	Belgard Retail Park, Belgard Road, Tallaght, Dublin 24.	GRANT PERMISSION	2018-02-09
SD17A/0436	Single storey first floor extension to the existing Intensive Care Unit (ICU) consisting of twelve isolation bedrooms, associated ancillary spaces, public waiting and overnight areas and staff areas.	Tallaght University Hospital, Belgard Square North, Tallaght, Dublin 24	GRANT PERMISSION	2018-02-06
SD17A/0430	The construction of a new entrance lobby and concourse of total 250sq.m. additional floor area and 6m in height, including new information desk, informal seating area and display facilities	Tallaght University Hospital, Belgard Square North, Tallaght, Dublin 24	GRANT PERMISSION	2018-02-02
SD17A/0418	Change of use from previously permitted retail use on the ground and first floor of units D-03 and D-07 and associated circulation cores, to medical clinic use and internal modification to the circulation cores. This will extend the existing medical clinic as permitted under planning permission Ref. SD15A/0357.	Units D03 & D07, Block D, Belgard Square West, Tallaght Town Centre, Dublin 24	GRANT PERMISSION	2018-01-29



Application Number	Development Description	Development Address	Decision	Grant Date
SD17A/0412	Changes of use within the existing Tallaght Cross West development: from permitted crèche uses to residential (9 units) at first floor level; from permitted retail uses to crèche (414sq.m) at ground and mezzanine floor levels; from permitted retail management suite and plant room use to part residential (3 units) at mezzanine floor level; from permitted retail and food court uses to third level education (2228sq.m) at ground, mezzanine and first floor levels; from permitted gymnasium use to residential (7 units) at mezzanine level; from permitted retail to gymnasium use (1918sq.m) at ground and mezzanine floor levels and from permitted retail to medical use (2885sq.m) at ground floor level all on site bounded principally by Belgard Square West, Cookstown Way and the Luas Red Line	Belgard Square West, Tallaght, Dublin 24	GRANT PERMISSION	2018-01-23
SD17A/0284	Modifications to existing retail Unit 6 (previously approved plans (Reg Ref SD03A/0323, SD05A/0720), An Bord Pleanála Ref No. PL06S.204123) consisting of 467sq.m retail food store (to include Off Licence) with associated provision of seated dining, kitchen, wc, office and storage facilities; alteration to the front facade to introduce a new pedestrian entrance with new signage over and all ancillary site works and services.	Unit 6, Belgard Square West, Tallaght, Dublin 24	GRANT PERMISSION	2017-12-19
SD17A/0257	Change of use of the existing night club on the second floor of the Abberley Hotel into 12 new guest rooms/bedrooms including associated internal alterations.	Abberley Court Hotel, Belgard Road, Tallaght, Dublin 24	GRANT PERMISSION	2017-12-18
SD17A/0209	Construction of a retail warehouse unit with an overall height of 8.6m and a total GFA of 2,404 sq.m. to be located adjacent to Unit 7 in the northwest of Belgard Retail Park. This includes 1,409 sq.m. of retail warehouse floorspace at ground floor level and 995 sq.m. of retail warehouse/storage space at mezzanine level. The proposal includes signage for the unit and a service area to the rear. The development will also involve the demolition of the existing 16 sq.m. single storey access building to the below ground pumphouse room located beside the sprinkler tanks (to be retained) and its replacement with a new standalone above ground pumphouse along the eastern boundary of the site measuring 22sq.m. The proposal will result in the removal of 82 existing public and staff car parking spaces, the repositioning of 10 car parking spaces repositioned to the eastern boundary and the provision of 11 new car parking spaces located at the northern boundary to the rear of the proposed unit. The proposal includes cycle parking, landscaping and all associated site works.	Belgard Retail Park, Belgard Road, Tallaght, Dublin 24	GRANT PERMISSION	2017-12-04
SD17A/0333	30KW of roof mounted solar PV panels on the student canteen roof.	IT Tallaght, Old Blessington Road, Tallaght, Dublin 24.	GRANT PERMISSION	2017-11-09
SD17A/0177	(1) Temporary gas powered generation plant within a 2,850sq.m fenced yard containing 12 generator units and 2 back-up diesel generator units with associated flues (each 18m. high), attenuation screen (15m. high) and auxiliary installations, (2) gas meter and incoming gas stream reduction plant within a separate 40sq.m fenced yard and (3) sundry ancillary works.	Former Jacobs/Allied Biscuits Site, Belgard Road, Tallaght, Dublin 24	GRANT PERMISSION	2017-09-04
SD17A/0216	Retention of: (1) first floor internal alterations, including the construction of office spaces on a mezzanine floor located over an existing shop floor; (2) alterations made to an existing advertising totem pole and all associated site works.	Unit 1, Airton Business Park, Airton Road, Tallaght, Dublin 24.	GRANT PERMISSION	2017-08-28
SD17A/0077	(1) Change of use of part of existing warehouse to retail use at first floor (260sq.m), internal alterations; (2) new vehicular entrance on Airton Road, expanded parking capacity in one-way system, widening of access on Broomhill Road and all associated site works.	Unit 31, Airton Road, Tallaght, Dublin 24.	GRANT PERMISSION	2017-05-09

Based on a review of the planning applications above and associated documentation, there are no developments of significance proposed in proximity of the proposed development that could give rise to cumulative impact. Given this, it is considered that cumulative impacts with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised.

#### Ringsend WwTP

The sewage discharge will be licensed by Irish Water, collected in the public sewer and treated at Irish Water's WWTP at Ringsend prior to discharge to Dublin Bay. This WWTP is required to operate under an EPA licence (D0034-01) and to meet environmental legislative requirements. The plant has received planning permission (2019) and will be upgraded with increased treatment capacity over the next five years. The peak foul discharge calculated for the proposed development is well within the current capacity of the WWTP.

The 2019 planning permission facilitated upgrading works to meet nitrogen and phosphorus standards set out in the licence, which are temporarily exceeded currently. The design includes aerobic granular sludge which will result in treatment of sewage to a higher quality than current thereby ensuring effluent discharge to Dublin Bay will comply with the Water Framework Directive, Urban Wastewater Treatment Directive and Bathing Water Directive. It is understood at this point in time that the upgrade to use of aerobic granular sludge and other phased upgrades (excluding the proposed Clonsaugh development) will result in the WWTP achieving a population equivalent of 2.4 million and are to be completed between by 2027 to 2028. The application for the upgrade of the WWTP in 2012 and the revised upgrade in 2018 was supported by a detailed EIAR. As outlined in the EIAR, modelling of water quality in Dublin Bay has shown that the upgrades (which are now currently underway) will result in improved water quality within Dublin Bay. The 2018 EIAR predicts that the improvement in effluent quality achieved by the upgrade will compensate for the increase in flow through the plant. The ABP inspectors report summarises the positive findings of the modelling for the post WWTP upgrade scenario on Dublin Bay water quality in sections 12.3.5 and 12.3.12 of his report and the overall positive impact for human health and the environment in his conclusions in section 12.9.1. Page 12 of the grant of permission (reference: ABP-301798-18) states the positive impact arising from the delivery of the project "...which would improve compliance with EU Directives and corresponding legislation and would be pivotal in supporting planning and economic growth in Dublin City and its region.

The project is being progressed in stages to ensure that the plant continues to treat the wastewater (1.98 million population equivalent) to the current treatment levels throughout the delivery of the upgrade. The project comprises three key elements and underpinning these is a substantial programme of ancillary works:

- Provision of additional secondary treatment capacity with nutrient reduction (400,000 population equivalent);
- Upgrade of the 24 existing secondary treatment tanks to provide additional capacity and nutrient reduction, which is essential to protect the nutrient-sensitive Dublin Bay area; and
- Provision of a new phosphorous recovery process.

Irish Water recently completed work on an €80 million, 400,000 population equivalent upgrade to the Ringsend Wastewater Treatment Plant. These upgrades to the WWTP were scheduled to be completed in the first quarter of 2021 and were completed in Q4 2021. Ringsend is the largest wastewater treatment plant in Ireland and was built to treat the wastewater for the equivalent of 1.64 million people. Currently the plant services over 40% of the national population and is treating wastewater for the equivalent of 1.9 million people.

This newly completed upgrade will accommodate the current demand, support planned housing in the Dublin Region and will improve the quality of the treated wastewater discharged to the Liffey estuary.

This capacity upgrade is one part of an overall investment of €400 million by Irish Water in the Ringsend Wastewater Treatment Plant Upgrade Project. Subject to planning permission, the overall upgrade project will

enable full treatment of wastewater for the equivalent of 2.4 million people, meeting all foreseeable development needs to at least 2025.

The 2019 planning permission facilitated upgrading works to meet nitrogen and phosphorus standards set out in the licence, which are temporarily exceeded currently.

The application for the upgrade of the WWTP in 2012 and the revised upgrade in 2018 was supported by a detailed EIAR. As outlined in the EIAR, modelling of water quality in Dublin Bay has shown that the upgrades (which are now currently underway) will result in improved water quality within Dublin Bay. The 2018 EIAR predicts that the improvement in effluent quality achieved by the upgrade will compensate for the increase in flow through the plant. The ABP inspector's report summarises the positive findings of the modelling for the post WWTP upgrade scenario on Dublin Bay water quality in sections 12.3.5 and 12.3.12 of his report and the overall positive impact for human health and the environment in his conclusions in section 12.9.1.

Even without treatment at the Ringsend WWTP, the peak effluent discharge, calculated for the proposed development as 0.38 litres/sec (which would equate to 0.003% of the licensed discharge at Ringsend WWTP [peak hydraulic capacity]), would not impact on the overall water quality within Dublin Bay and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive). This assessment is supported by hydrodynamic and chemical modelling within Dublin Bay which has shown that there is significant dilution for contaminants of concern (DIN and MRP) available quite close to the outfall for the treatment plant (Ringsend WWTP 2012 EIS, Ringsend WWTP 2018 EIAR). The most recent water quality assessment of Dublin Bay WFD Waterbody undertaken by the EPA (four yearly monitoring of trends for indicator parameters) also shows that Dublin Bay on the whole, currently has an 'Unpolluted' water quality status ([www.catchments.ie](http://www.catchments.ie)).

The assessment of the current proposal has also considered the effect of cumulative events, such as release of sediment laden water combined with a hydrocarbon leak on site. As there is adequate assimilation and dilution between the site and the Natura sites (Dublin Bay), it is concluded that no perceptible impact on water quality would occur at the Natura sites as a result of the construction or operation of this Proposed Development. It can also be concluded that the cumulative or in-combination effects of effluent arising from the Proposed Development with that of other permitted, proposed developments, or with development planned pursuant to statutory plans in the greater Dublin, Meath and Kildare areas, which will be discharged into Ringsend WWTP will not be significant having regard to the size of the calculated discharge from the Proposed Development and having regard to the following:

- Recent water quality assessment for Dublin Bay shows that Dublin Bay currently continues to meet the criteria for 'Unpolluted' water quality status (EPA, 2022).
- The Ringsend WWTP upgrade which is currently being constructed will result in improved water quality to ensure compliance with Water Framework Directive requirements.
- All new developments are required to comply with SuDS which ensures management of run-off rate within the catchment of Ringsend WWTP.
- The natural characteristics of Dublin Bay result in enriched water rapidly mixing and degrading such that the plume has no appreciable effect on water quality at Natura sites.

As the Proposed Development will have no additional stormwater run-off during a stormwater event over and above the current level, surface water run-off from the development in the operational phase will therefore have no impact on the water quality in any overflow situation apart from a minor contribution from foul sewage. It should be noted that the bathing status has no direct relevance to the water quality status of the Natura sites due to rapid mixing and dilution resulting in no measurable change in water quality within the overall water body.

As a result of the outlined information, it is considered that in cumulative effects with other existing and proposed developments would be unlikely, neutral, not significant and localised.



## Residual Impacts and Conclusion

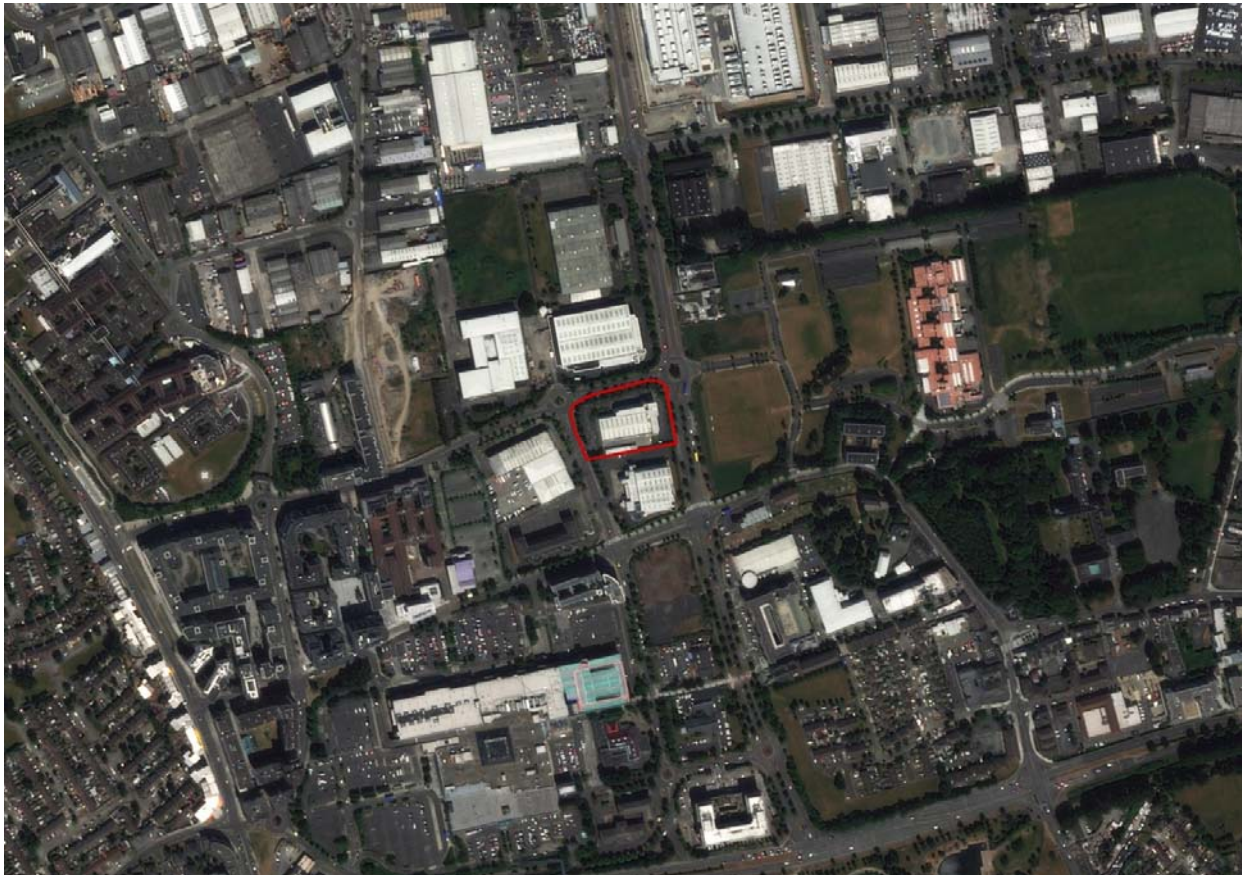
The proposed development site consists primarily of built land. No species, with the exception of a single herring gull, or habitats of conservation importance were noted on site. There is an indirect pathway from the proposed development to designated sites in Dublin Bay, albeit at a significant distance. Foul water will be treated under licence within the Ringsend WwTP. Surface water from the proposed development will be discharged to the River Dodder catchment, which ultimately outfalls to the marine environment at Dublin Bay. Mitigation measures will be implemented to ensure the protection of the water quality entering the surface water network.

The construction and operational mitigation measures proposed for the development satisfactorily addresses the mitigation of potential impacts on the sensitive receptors, primarily the surface water runoff from the site, which will discharge to the River Dodder and to the marine environment at Dublin Bay. Mitigation measures to satisfactorily address the protection of biodiversity on site and the surface water quality entering the public network, will be implemented and will ensure the protection of biodiversity on site and water quality of the River Dodder and downstream conservation sites. The impact of the proposed development would be a short term/minor adverse/not significant impact during construction and a neutral impact during operation.

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Appendix I. Bat fauna impact assessment for the proposed SHD application for a residential development The Arboury (former ABB site) on Belgard Road, Tallaght, Dublin 24.



11<sup>th</sup> May 2022

**Prepared by:** Bryan Deegan (MCIEEM) of Altemar Ltd.

**On behalf of:** Landmarque Property Group Ltd.

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Directors: Bryan Deegan and Sara Corcoran

Company No.427560 VAT No. 9649832U

[www.altemar.ie](http://www.altemar.ie)

<b>Document Control Sheet</b>			
Client	Landmarque Property Group Ltd.		
Project	Bat fauna impact assessment for the proposed SHD planning application for a residential development at The Arboury (former ABB site) on Belgard Road, Tallaght, Dublin 24		
Report	Bat Fauna Assessment		
Date	11 <sup>th</sup> May 2022		
Version	Author	Reviewed	Date
Planning	Bryan Deegan		11 <sup>th</sup> May 2022



## **SUMMARY**

<b>Structure:</b>	The site consists of an existing building structure, amenity grassland and treelines.
<b>Location:</b>	The Former ABB Site, Belgard Road, Tallaght, Dublin 24
<b>Bat species present:</b>	None Roosting. No foraging within the proposed site.
<b>Proposed work:</b>	The proposed development will consist of the demolition of all existing structures on site, the construction of a mixed-use residential development.
<b>Impact on bats:</b>	No roosting or evidence of bat activity on site. No impact on bats is foreseen. The proposed development is located in a brightly lit site proximate to roads with streetlighting on 3 sides.
<b>Survey by:</b>	Bryan Deegan MCIEEM
<b>Survey date:</b>	22 <sup>nd</sup> September 2020 and 22 <sup>nd</sup> April 2022

## Receiving Environment

### Background

The site of c.0.898 ha is located at the former ABB Site, Belgard Road, Tallaght, Dublin 24, D24 KD78. The site is bound by Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.

The proposed development will consist of:

1. Demolition of all existing structures on site (with a combined gross floor area of c. 3625 sqm)
2. The construction of a mixed-use residential development set out in 3 No. blocks including a podium over a basement, ranging in height from 2 to 13 storeys (with core access above to roof terrace), comprising:
  - 334 no. residential units of which 118 No. will be Build to Rent (BTR) residential units, with associated amenities and facilities across the development,
  - 4 No. retail/café/restaurant units and 3 no. commercial spaces associated with the 3 no. live-work units (723 sqm combined),
  - Childcare facility (144 sq.m.),
  - 670 No. bicycle parking spaces including 186 visitor spaces; 117 car parking spaces (including 6 disabled spaces) are provided at ground floor and basement level.
  - The overall development has a Gross Floor Area of 29,784 sq.m.
  - Two (2) podium residential courtyards and three (3) public accessible pocket parks, two (2) to the North & one (1) to the South.
  - Linear Park (as a provision of the Tallaght Town Centre LAP) providing safe public pedestrian and cycling access between Belgard Rd and Belgard Square East
3. Of the total 334 residential units proposed, unit types comprise:

#### *Block A (Build-to-Rent)*

- 91 no. 1 bed units
- 1 no. 2 bed 3 person units
- 26 no. 2 bed 4 person units

#### *Blocks B & C*

- 2 no. live-work studio units
- 102 no. 1-bed units
- 12 no. 2-bed 3 person units
- 88 no. 2-bed 4 person units including 5 no. duplex units
- 1 no. 2-bed 4 person live-work unit
- 11 no. 3-bed units

4. All associated works, plant, services, utilities, PV panels and site hoarding during construction

The proposed site outline, location, and layout plan are demonstrated in Figures 1 & 2.

## Landscape

A Landscape Design Statement was composed by Cameo & Partners. In relation to the landscape design and plan for the proposed project, the report states that:

*'The emerging landscape positively responds to the Site's location through the creation of a series of connected public and raised amenity pocket parks and courtyards, and the strengthening of wider vistas to the Wicklow mountains to the south and into the permitted.'*

*It strengthens green infrastructure through the introduction of the new green lane and the strong north south linkages.*

*It provides improved access for the local and emerging community -provides defensible space between the communal courtyards and the adjacent private frontages.*

*It provides spaces for new planting tube accommodated and to provide strong tree planting to the street frontage.'*

Furthermore, the report states that:

*'As part of the communal amenity space provision, there are three proposed designated terraces for the residents Some of the rooftops will be designated to biodiversity enhancements and as part of the SUD's strategy and PV provision.*

*As part of all the amenity terrace design, screen planting will be introduced to help alleviate the wind mitigation at this height. Typical species will be Pennisetum alopecuroides. 'Hameln', Fagus sylvatica hedge, Dryopteris wallichiana, Stipa tennussima and Hakonechloa macra.'*

The report also states that: *'A variety of trees have been selected to enhance the characteristics of the scheme. The following page illustrate these in more detail with key species. A total of 86 no. large multi-stem and large shrubs are proposed across the development overall.'*

In relation to the biodiversity enhancement proposed by the Landscape Design Statement, the report states that: *'The scheme presents numerous opportunities to deliver ecological enhancements for the benefit of the new residents and local biodiversity. Some of these are:*

- Rain garden
- Green roofs
- Native Planting
- Habitat creation for Wildlife

*Other enhancements that may also be adopted to maximise the opportunities for the inclusion of biodiversity are listed below. These are aimed at meeting local biodiversity targets and will be considered upon guidance from the Ecology Officer.*

### BAT BOXES

*The inclusion of bat boxes can help provide roosts for a variety of species. These boxes can be fabricated from a range of materials and positioned against building facades, fences and amongst tree planting. Coordination with an ecologist will be required.*

### INSECT HOTELS

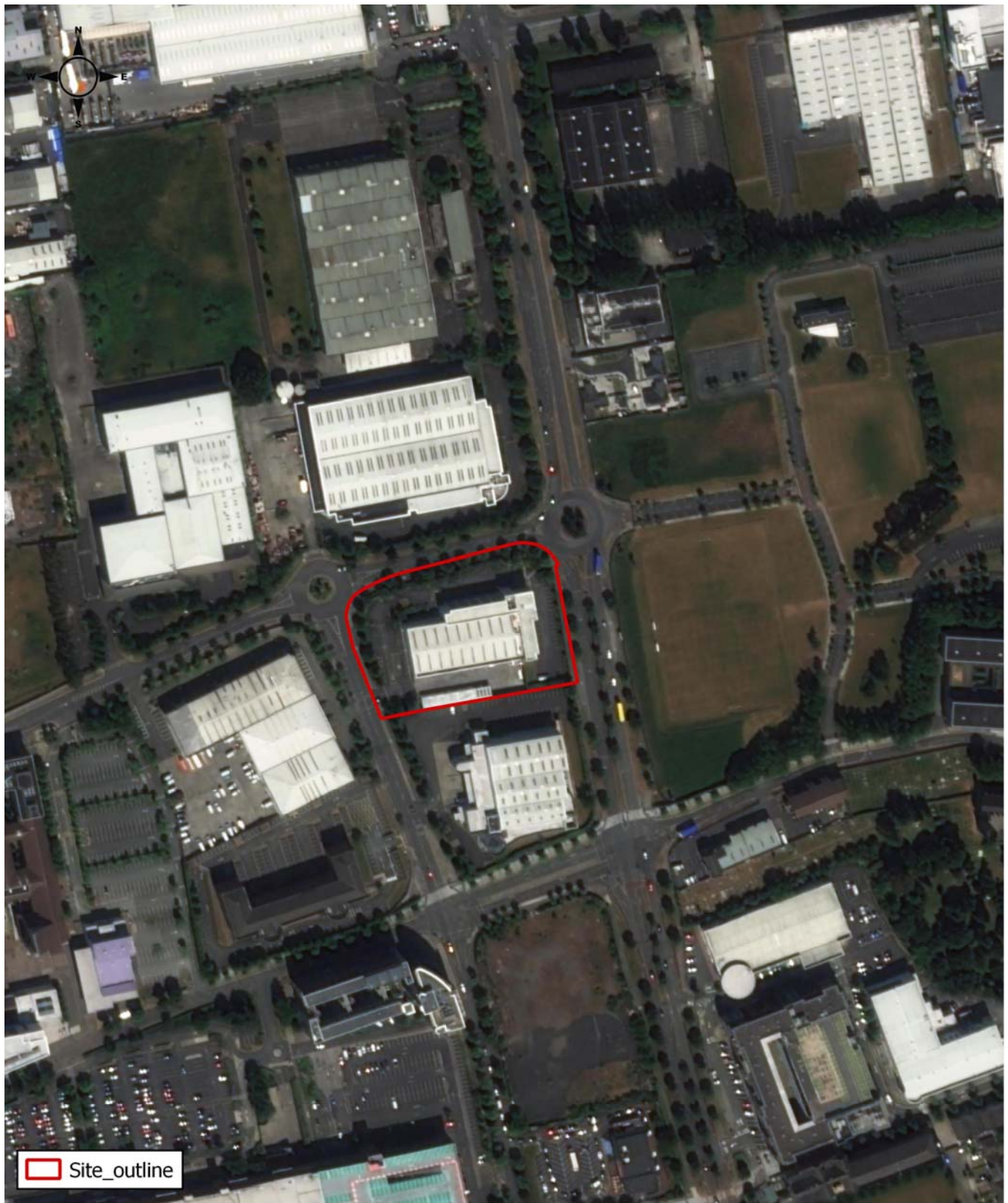
*Insect hotels may be positioned in a couple of locations across the scheme providing the perfect habitat for invertebrates such as bees and butterflies. The inclusion of these types of habitat will help cross pollination of the planting, help sustain other wildlife and provide an interesting educational tool too. The design, scale and location to be developed in collaboration with an ecologist to maximise the benefits associated with this habitat type.*

### BIRD BOXES

*Bird boxes provide a low tech and effective way to encourage wildlife into the scheme. Positioned on buildings and within trees these simple habitats provide visual interest and can echo the architectural styles seen throughout the development. Here it is suggested that these are incorporated into language of the play area on totems.'*

The proposed landscape general arrangement plan is demonstrated in Figure 3.





Project: Belgard Road  
 Location: Talaght, Dublin 24, Co. Dublin  
 Date: 20th February 2022  
 Drawn By: Bryan Deegan (Altamar)

**ALTEMAR**  
 Marine & Environmental Consultancy



Figure 1. Proposed site outline



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 Figured dimensions only to be taken from this drawing. DO NOT SCALE. All dimensions must be checked and the drafter responsible for checking all dimensions and verifying the accuracy of any dimensions prior to any construction or construction work.

**LEGEND**

- 1 Bed 2 People
- 2 Bed 3 People
- 2 Bed 4 People
- 3 Bed 5 People
- 2 Bed Duplex
- Studio - Work Unit
- 2 Bed - Work Unit
- Commercial
- Amenity
- Bike parking
- Car parking
- Bin storage
- District Heating Plant Room
- Incoming Telco's Room
- Service/Road
- Circulation

REV	DATE	SIGNED	NOTES
001	10/09/20	AB	Issue for information
002	10/09/20	SOD	Issue for information
003	10/09/20	AS	Issue for information
004	10/09/20	AS	Issue for information
005	10/09/20	AS	Issue for information
006	10/09/20	AS	Issue for information
007	10/09/20	AS	Issue for information
008	10/09/20	AS	Issue for information
009	10/09/20	AS	Issue for information
010	10/09/20	AS	Issue for information
011	10/09/20	AS	Issue for information
012	10/09/20	AS	Issue for information
013	10/09/20	AS	Issue for information
014	10/09/20	AS	Issue for information
015	10/09/20	AS	Issue for information
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Project Name: SHD Application  
 Client: Landmarque Property Group Ltd  
 Project: Belgard Rd, Tallaght  
 Drawing Title: PLAN - LEVEL 00  
 Issue: AB, SOD, AS indicated, 10/09/20  
 Project No: 19-150, Drawing No: 2100  
 Drawing S&M Name: PE19150-CWO-ZZ-00-DRA-A-2100

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00 - Ground Floor  
 1:200

Figure 2. Proposed site layout





Figure 3. Proposed landscape general arrangement plan



## Arboricultural Assessment

An Arboricultural Assessment & Impact Report has been prepared by CMK Hort + Arb Ltd.

In relation to the existing trees on site, the report states that: *“The site is located at the former ABB Site, on the junction of Belgard Road and Belgard Square North. It is an industrial warehouse site with offices of c.0.898 ha The site is bordered Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.*

*A total of 24 trees were assessed within the site with additional trees assessed within the public realm on Belgard Road and Belgard Square North & East. The trees within the industrial complex are located on the north, east and western boundaries and are all contemporary with the building. The age of the trees reflects this with all the trees within the young to early-mature age classes. The range of species also reflects the industrial nature of the site with smaller, more ornamental species / cultivars as opposed to potentially larger species predominating (chart 1). These include rowan and whitebeam (*Sorbus sp*) with more occasional alder (*Alnus incana*) and lime (*Tilia*) cultivars (images 2-3)*

*There has been minimal management of trees to date. The quality of the trees are good overall (table 1) with the vast majority of the trees within category B which gives them a moderate quality categorisation (BS5837 2012) with those within category C of low value overall. There are also a range of shrubs including lilac, hebe and potentilla present. In the main they have been tightly clipped (image 2) and are of low to moderate landscape value as a result. A total of 26 trees within the public realm on Belgard road and Belgard Square North & East were assessed (for locations refer to drawing TABB001 101). They are composed of small leaved lime (*Tilia cordata cv*), Turkish hazel (*Corylus avellana*) and Norway maple (*Acer platanoides*) (Chart 2). The trees are early-mature though range considerably in terms of size. They are generally well developed (refer to Appendix II for a detailed description of individual trees) and all have been categorised as B.*

*A number are growing close to or just overhanging the ABB site (image 4). They are very unlikely to have roots which extend into the site as a boundary wall and fence delineates the boundary and would restrict root movement into the site.’*

Category	No	% of total
A	0	0
B	21	88
C	3	12
U	0	0

Table 1. Tree Categorisations (ABB Site)

Furthermore, the report states that: **‘3. Impact of proposed development**

*The proposed development will necessitate the demolition of all existing structures on site (and the construction of a mixed-use residential development set out in 3 No. blocks including a podium over a basement, ranging in height from 2 to 13 storeys. The proposed development will necessitate the removal of all existing trees within the site (table 1) plus a total of twenty three early-mature category B trees within the public realm on Belgard Square North & East.*

*The impact of the proposed development on trees is shown on drawing TABB001 102 Rev B and is considered significant in terms of tree loss in this area. Proposed new tree and other associated*

*plantings are outlined within the Landscape Strategy provided by Cameo & Partners. They have shown a total of 86 trees planted over the site.’*

Tree Categories	Number	% of Total Within category
A	0	0
B	21	100
C	3	100
U	0	0

**Table 2.** Arboricultural Impact ABB Site



**Image 3.** Alder on southern boundary



**Image 4.** Trees on Belgard Square North



**Image 2.** Whitebeam on western boundary

The Arboricultural assessment and impact for the proposed development are seen in Figures 4 and 5.







Figure 5. Arboricultural impact

## Lighting

A Lighting Masterplan was composed by EQ2 Light. The document details the implementation of artificial illumination within the exterior of the ABB Belgard Road project. The document states that: *'The ABB Belgard Road scheme presents as an opportunity to improve local street lighting provisions as well as set a precedent for future developments in the surrounding local area.'* In relation to the technical information for the proposed lighting for the development, the report states that:

### **'TECHNICAL MEMORANDA**

*A full range of technical memoranda have been consulted as part of the development of The Arboury. These will form the technical benchmark for many of the principles and arrangements described above. Memoranda will include but not be limited to the following documents:*

#### **South Dublin County Council Public Lighting Specification Document**

*The lighting design proposed for the The Arboury Site will meet all standards and technical specifications set out with-in the SDCC document. Including but not limited to the requirement to meet I.S EN 13201-2:2015 and BS 5489-1:2020 relating to road lighting.*

#### **Tallaght Town Centre Local Area Plan 2020**

*The use of artificial lighting will align with the goals set out for Tallaght Town Centre in this document. Note will be taken of section 9.0 (Tallaght Specific Development Standards) particularly section 9.8 on Safety and Security.*

#### **British Standard 5489-1:2020 and the Associated EN13201-2:2015**

*This standard document provides a basic platform for the use of artificial light within The Arboury scheme. A key reference is table A6 'Lighting Classes for City and Town Centres', where a Classification of C3 will be reviewed in relation to the proposal for mixed vehicle and pedestrian space with separate foot-ways.*

#### **BS EN 12464-2 (2014) Light and Lighting - Lighting Of Work Places. Part 2: Outdoor Work places**

*This British Standard is concerned with enabling people to perform outdoor visual tasks efficiently and accurately, especially during the night.*

#### **Chartered Institute of Building Services Engineers, Lighting Guide 6: 2016**

*In particular, focusing on the guidance indicated for sections 2.5 Landscape Lighting, 2.6 Facade Lighting, 2.8 Roadways 3.2 Pedestrian Routes, Cycleways and Subways, and 3.4 Steps, Stairs and Change of Levels. Consideration should be made on Appendix 4 in relation to the effects of Artificial Light on Animal and Plant Ecology*

#### **Institute of Lighting Professionals, Guidance Note 01/20, 'Guidance Notes for the Reduction of Obtrusive Light'**

*Again, the principles of lighting control, optical control/methods are incorporated into the proposed scheme described above. The proposed development will meet all guidance set out for the E3 lighting environment where feasible.*

#### **Institute of Lighting Professionals, Guidance Note 08/18, 'Bats and Artificial Lighting in the UK'**

*A key piece of Guidance recognizing the particular requirements of Bats in the urban environment. Specific performance guidance with regard to lamp spectral outputs, ultra-violet emissions, illuminance limitation zones and dimming/part night lighting are all incorporated in the proposals described above.*

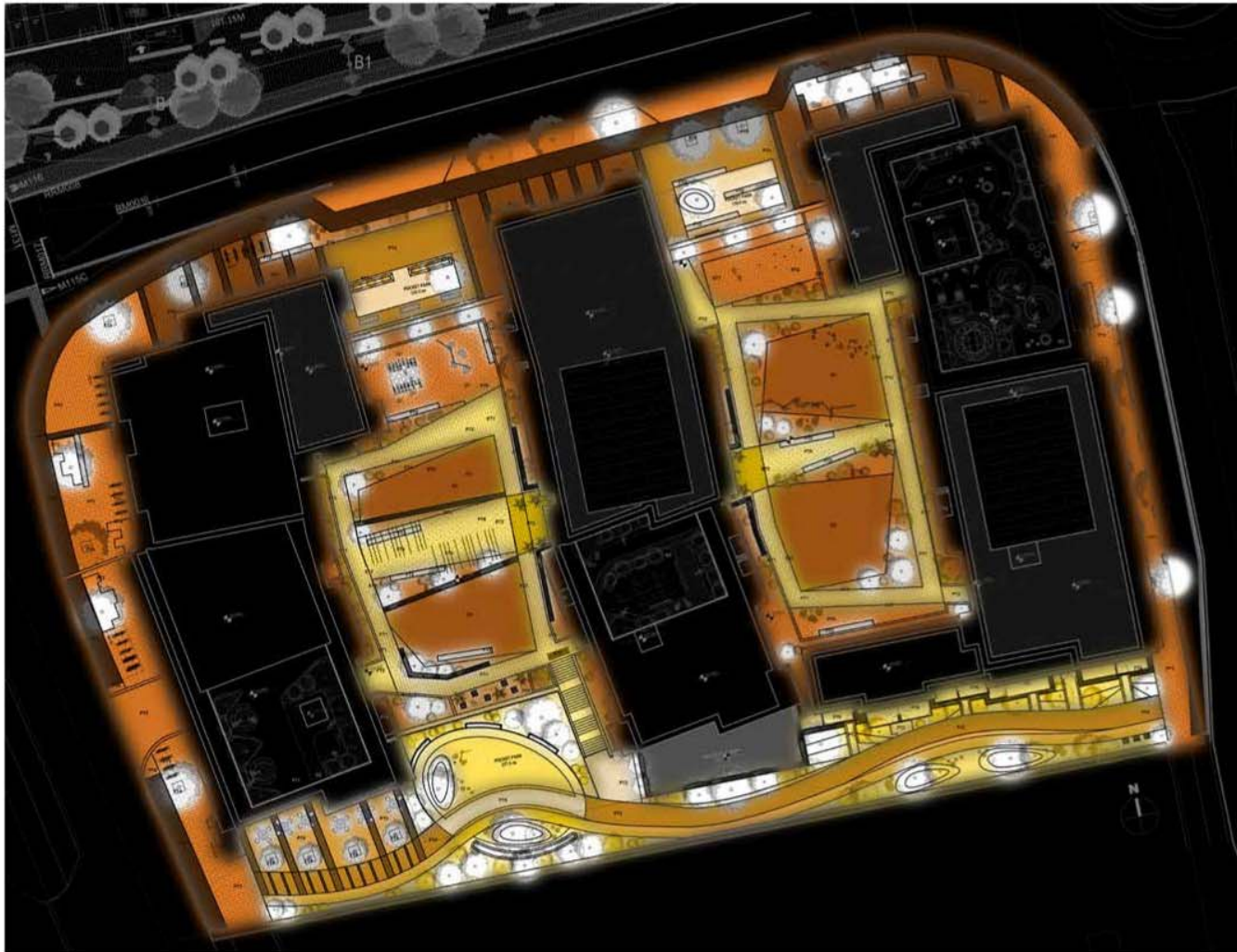
#### **Bat Conservation Ireland, Guidance Notes for: Planners, engineers, architects and developers, 'Bats & Lighting'**

*This document offers guidance on the laws surrounding local bat species and their habitats in Ireland, specifically the 1976 Wildlife Act and 2000 Amendment as well as the EU Habitats Directive. It also covers many aspects of best practice for minimising the impact to bat species when lighting close to roost, foraging habitats, and bat commuting corridors.*

**NOTE ON THE ARBOURY AVIATION REPORT:** *"External Lighting Being close to the centre of the Approach and Take-off Climb Surfaces to and from Runway(s) 10/28, it is recommended that any external lighting (including any street lighting) should be of the cutoff type (i.e. showing no light above the horizontal)." The Lighting design described in this document will comply with this. There are some small elements of feature lighting (the wall grazing for example) where we move outside of the performance described above but these are very 'local' treatments, highly unlikely to cause visual disturbance to passing aircraft. All of the primary, larger lighting treatments in this document will work within the context of the requirement indicated above.' ' The proposed lighting layout is demonstrated in Figure 6.*

## LIGHTING STRUCTURE - FULL SCHEME

A REPRESENTATION OF THE COMBINED LIGHTING LAYERS AND TEXTURES



*Figure 6. Proposed lighting layout*



## Competency of Assessor

This report has been prepared by Bryan Deegan MSc, BSc (MCIEEM). Bryan has over 27 years of experience providing ecological consultancy services in Ireland. He has extensive experience in carrying out a wide range of bat surveys including dusk emergence, dawn re-entry and static detector surveys. He also has extensive experience reducing the potential impact of projects that involve external lighting on Bats. Bryan trained with Conor Kelleher author of the Bat Mitigation Guidelines for Ireland (Kelleher and Marnell (2007)) and Bryan is currently providing bat ecology (impact assessment and enhancement) services to Dun Laoghaire Rathdown County Council primarily on the Shanganagh Park Masterplan. The desk and field surveys were carried out having regard to the guidance: Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition (Collins, J. (Ed.) 2016) and Kelleher and Marnell (2007), Bat Mitigation Guidelines for Ireland.

## Legislative Context

*Wildlife (Amendment) Act 2000.*

Bats in Ireland are protected by the Wildlife (Amendment) Act 2000. Based on this legislation it is an offence to wilfully interfere with or destroy the breeding or resting place of any species of bat. Under this legislation it is an offence to “*Intentionally kill, injure or take a bat, possess or control any live or dead specimen or anything derived from a bat, wilfully interfere with any structure or place used for breeding or resting by a bat, wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose.*”

*Habitats Directive- Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora transposed into Irish Law i.e. European Communities (Natural Habitats) Regulations, 1997 (SI No. 64/1997).*

Annex II of the Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) lists animal and plant species of Community interest, the conservation of which requires the designation of Special Areas of Conservation (SACs); Annex IV lists animal and plant species of Community interest in need of strict protection. All bat species in Ireland are listed on Annex IV of the Directive, while the Lesser Horseshoe Bat (*Rhinolophus hipposideros*) is protected under Annex II which related to the designation of Special Areas of Conservation for a species.

Under section 23 of SI No. 64/1997 all bats are listed under the first schedule of Section 23 which makes it an offence to:

- deliberately capture a bat
- deliberately disturb a bat,
- damage or destroy a breeding site or resting place of a bat.

## Survey methodology

At dusk, a bat detector survey was carried out onsite using a *Batbox Duet* heterodyne/frequency division detector to determine bat activity. Bats were identified by their ultrasonic calls coupled with behavioural and flight observations. Surveys were carried out having regard to the following guidelines:

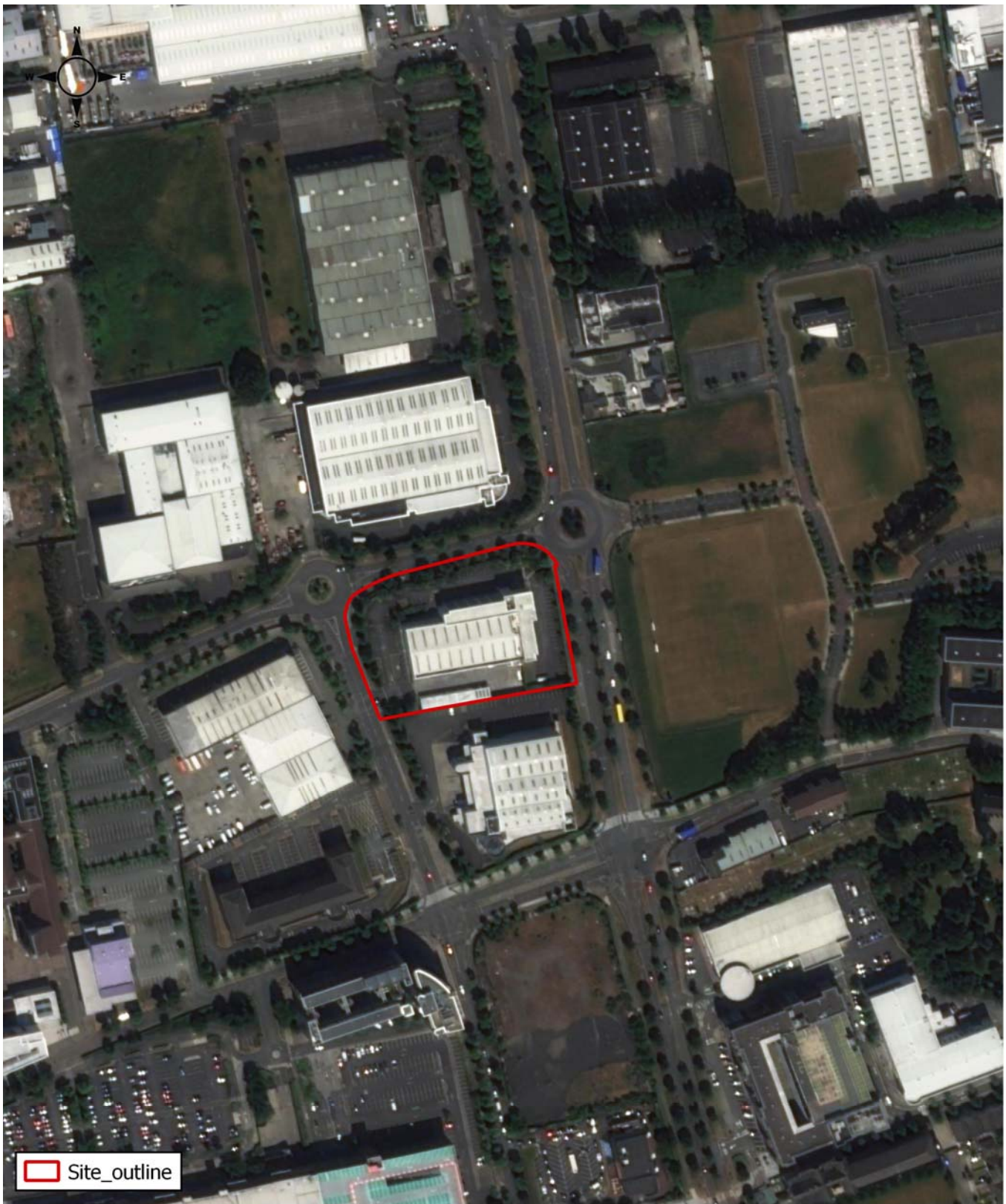
- Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016);
- Bat Mitigation Guidelines for Ireland (NPWS, 2006 & 2022); and,
- Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes (NRA, 2006).

## Bat survey

This report presents the results of site visit by Bryan Deegan (MCIEEM) on the 22<sup>nd</sup> September 2020 and 22<sup>nd</sup> April 2022.

## Survey constraints

The detector survey was undertaken during the active bat season. Weather conditions were good for both surveys with temperatures greater than 10°C after sunset. Winds were light and there was no rainfall.



0 0.09 0.18 0.27 km

Project: Belgard Road  
 Location: Talaght, Dublin 24, Co. Dublin  
 Date: 20th February 2022  
 Drawn By: Bryan Deegan (Altamar)

**ALTEMAR**  
 Marine & Environmental Consultancy



Figure 7: Site outline. Bat Foraging



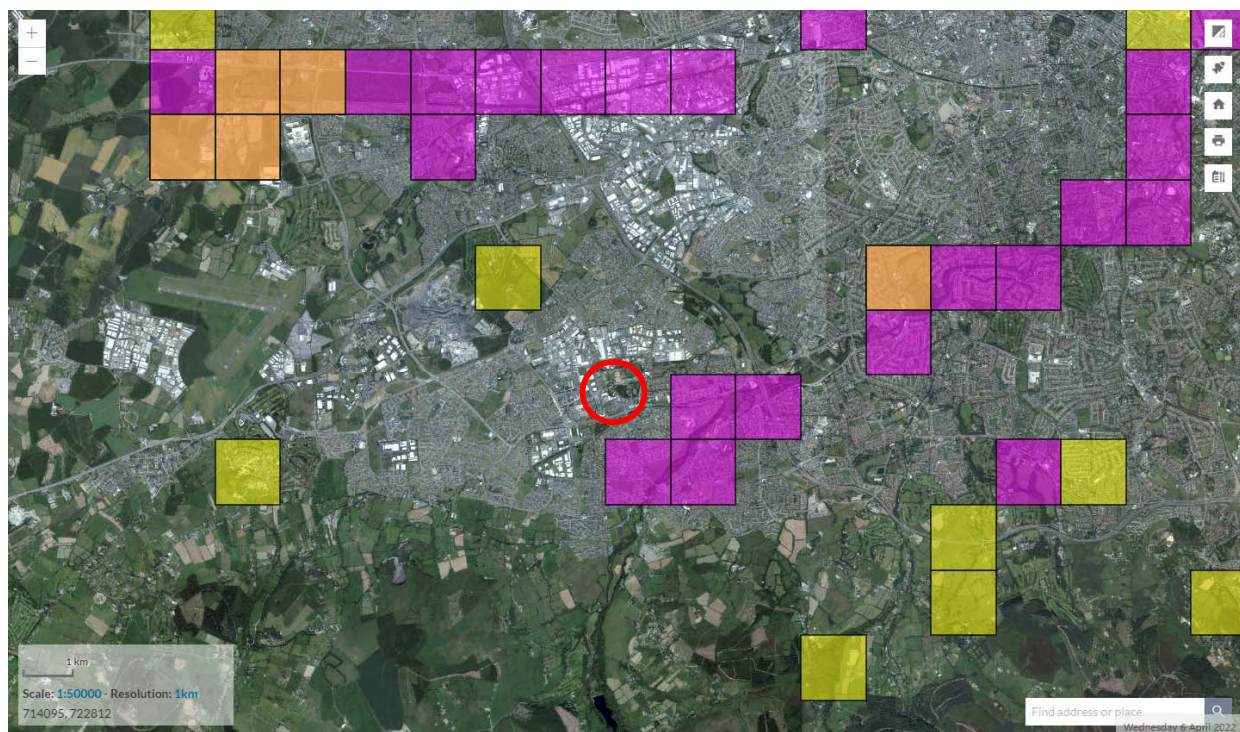
## Bat Assessment Findings

### Review of local bat records

The review of existing bat records (sourced from Bat Conservation Ireland's National Bat Records Database) within a 2km<sup>2</sup> grid (Reference grid O02Y) encompassing the study area reveals that one of the nine known Irish species have been observed locally (Table 1). The National Biodiversity Data Centre's online viewer was consulted in order to determine whether there have been recorded bat sightings in the wider area. This is visually represented in Figures 8-11. The following species were noted in the wider area: Brown Long-eared Bat (*Plecotus auritus*), Daubenton's Bat (*Myotis daubentonii*), Natterer's Bat (*Myotis nattereri*), Whiskered Bat (*Myotis mystacinus*), Lesser Noctule (*Nyctalus leisleri*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), and Pipistrelle (*Pipistrellus pipistrellus sensu lato*) (species aggregate) (Figures 8-11).

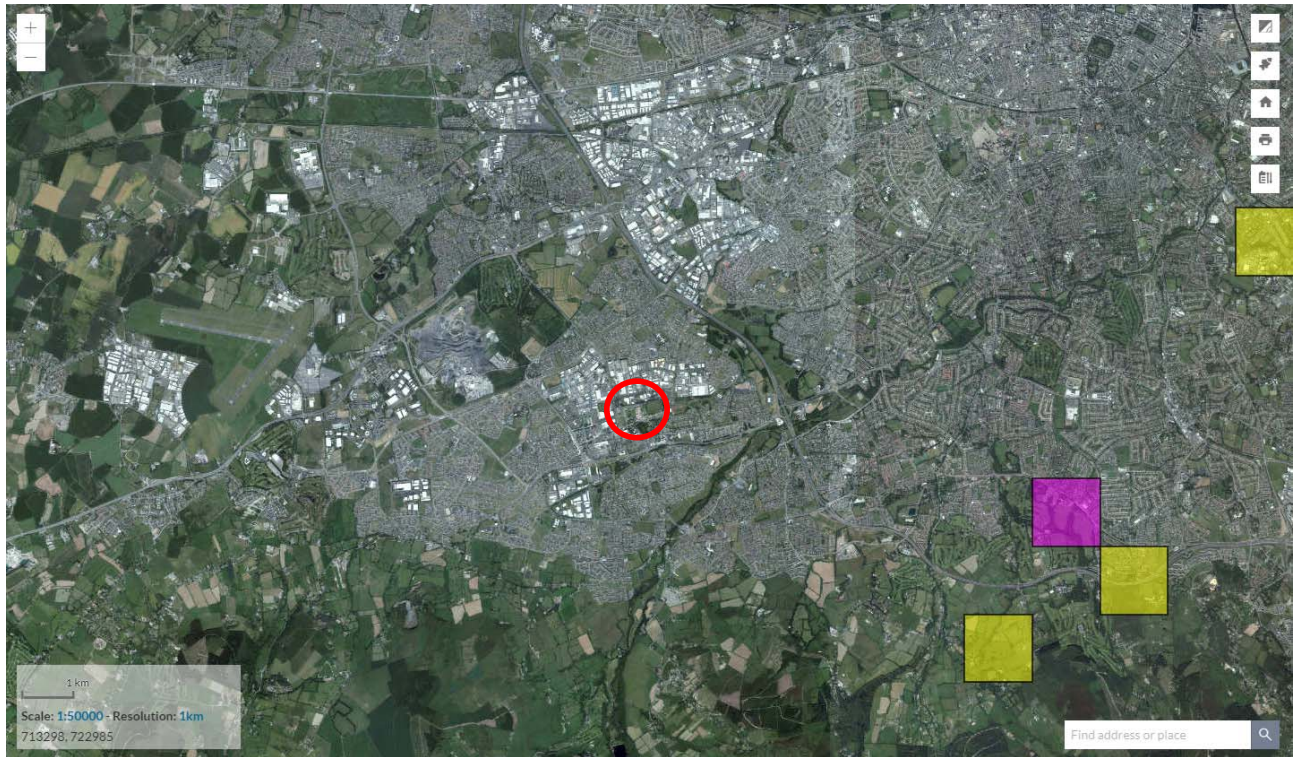
**Table 1:** Status of bat species within a 2km<sup>2</sup> grid encompassing the subject site (Reference no. O21Q)

Species name	Record count	Date of last record	Note
Daubenton's Bat ( <i>Myotis daubentonii</i> )	31	30/08/2013	National Bat Database of Ireland

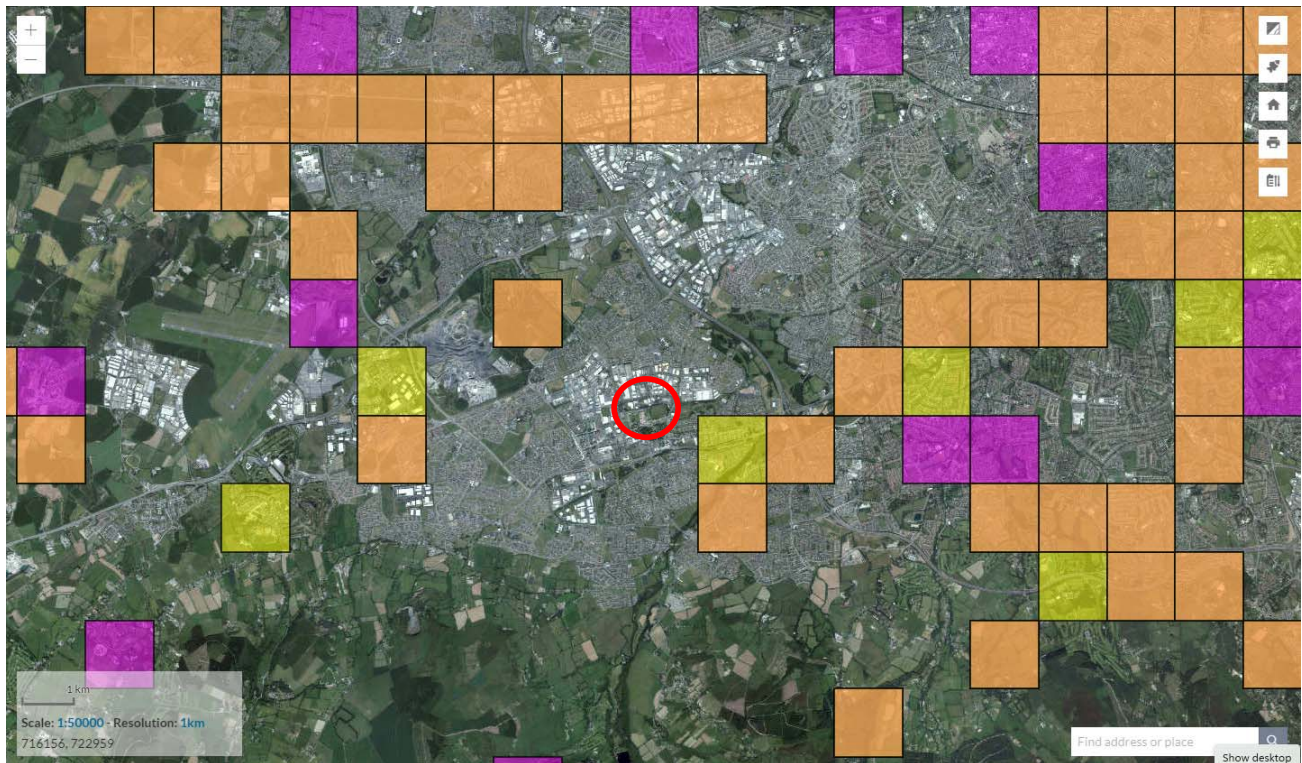


**Figure 8.** Daubenton's Bat (*Myotis daubentonii*) (purple), Brown Long-eared Bat (*Plecotus auritus*) (yellow) and both Daubenton's Bat and Brown Long-eared Bat (orange) (Source NBDC) (Site- red circle)



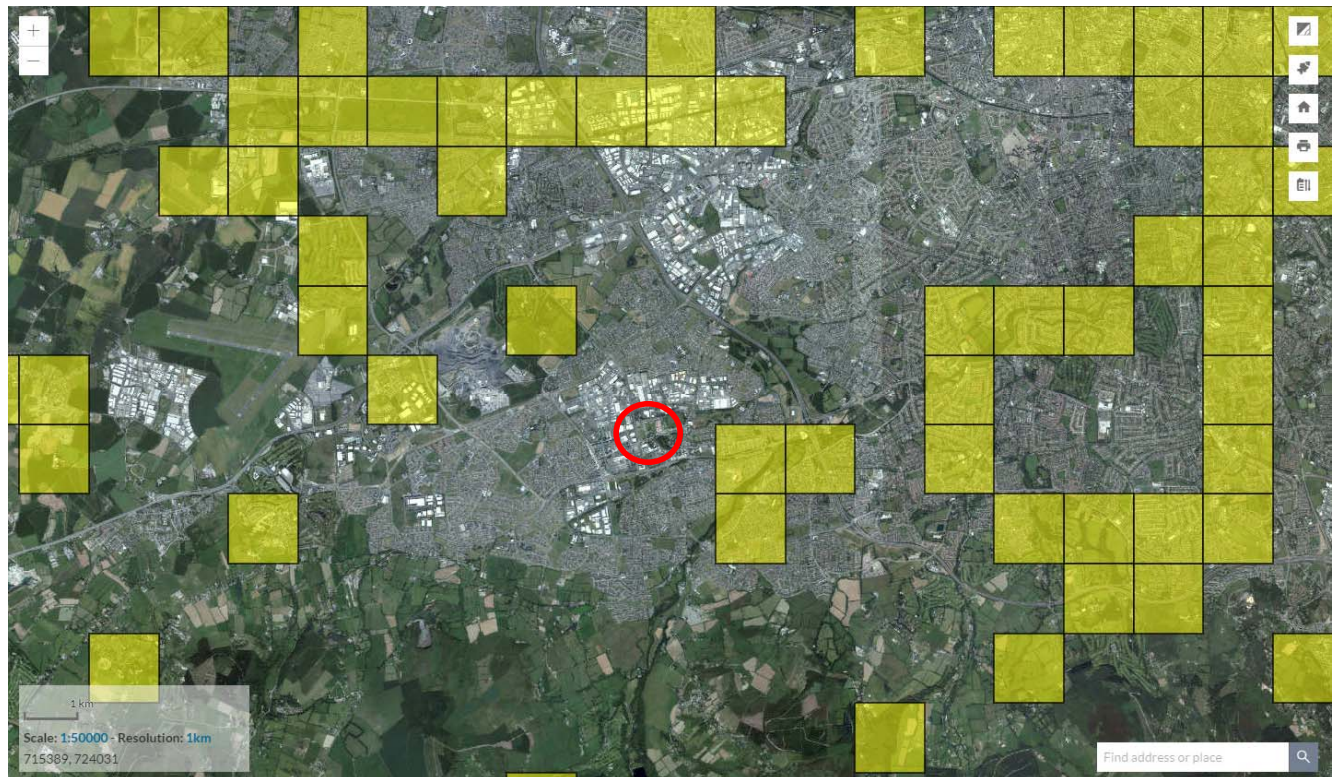


**Figure 9.** Whiskered Bat (*Myotis mystacinus*) (purple), Natterer’s Bat (*Myotis nattereri*) (yellow), and both Natterer’s Bat and Whiskered Bat (orange) (Source NBDC) (Site – red circle)



**Figure 10.** Lesser Noctule (*Nyctalus leisleri*) (purple), Soprano Pipistrelle (*Pipistrellus pygmaeus*) (yellow) and both Lesser Noctule and Soprano Pipistrelle (orange) (Source NBDC) (Site – red circle)





**Figure 11.** Common pipistrelle (*Pipistrellus pipistrellus sensu stricto*) (not present). Pipistrelle (*Pipistrellus pipistrellus sensu lato*) (Species Aggregate) (yellow) (Source NBDC) (Site – red circle)

### Detector survey

There were no seasonal or climatic constraints as survey was undertaken within the active bat season in good weather conditions with temperatures of 13°C after sunset. Winds were very light and there was no rainfall. No bats were observed on site.

### Bat Roosts

The site was inspected for bat use. No roosts or evidence of bat use was noted on site. No bats were observed emerging from the buildings on site. No trees of bat roosting potential are on site.

### Potential impacts of proposed redevelopment on bats

No bats emerging onsite trees or buildings were observed. No trees on site have bat roosting potential. The proposed development will involve the construction on site with additional light spill in the area which may reduce the foraging potential of the site. However, the site is already brightly lit on three sites by street lighting and this impact would be minor.

### Mitigation measures

No mitigation measures are required. However, a pre-construction commencement inspection will be carried out as a precaution. Four bat boxes will be placed on site as an enhancement measure.

### Predicted and residual impact of the proposal

A NPWS derogation licence is not required for this development. There is no evidence of a current or past bat roost on site, therefore no significant negative impacts on these animals are expected to result from the proposed redevelopment. A pre construction inspection will be carried out. The proposed development would be considered to have a Neutral Impact/ Not significant/ Unlikely Effects

## Legal status and conservation issues – bats

All Irish bat species are protected under the Wildlife Act (1976) and Wildlife Amendment Acts (2000 and 2010). Also, the EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive 1992), seeks to protect rare species, including bats, and their habitats and requires that appropriate monitoring of populations be undertaken. All Irish bats are listed in Annex IV of the Habitats Directive and the lesser horseshoe bat *Rhinolophus hipposideros* is further listed under Annex II. Across Europe, they are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), which, in relation to bats, exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries. The Irish government has ratified both these conventions.

All Irish bats are listed in Annex IV of the Habitats Directive and the lesser horseshoe bat is further listed under Annex II.

The current status and legal protection of the known bat species occurring in Ireland is given in the following table.

Common and scientific name	Wildlife Act 1976 & Wildlife (Amendment) Acts 2000/2010	Irish Red List status	Habitats Directive	Bern & Bonn Conventions
Common pipistrelle <i>Pipistrellus pipistrellus</i>	Yes	Least Concern	Annex IV	Appendix II
Soprano pipistrelle <i>P. pygmaeus</i>	Yes	Least Concern	Annex IV	Appendix II
Nathusius pipistrelle <i>P. nathusii</i>	Yes	Not referenced	Annex IV	Appendix II
Leisler's bat <i>Nyctalus leisleri</i>	Yes	Near Threatened	Annex IV	Appendix II
Brown long-eared bat <i>Plecotus auritus</i>	Yes	Least Concern	Annex IV	Appendix II
Lesser horseshoe bat <i>Rhinolophus hipposideros</i>	Yes	Least Concern	Annex II Annex IV	Appendix II
Daubenton's bat <i>Myotis daubentonii</i>	Yes	Least Concern	Annex IV	Appendix II
Natterer's bat <i>M. nattereri</i>	Yes	Least Concern	Annex IV	Appendix II
Whiskered bat <i>M. mystacinus</i>	Yes	Least Concern	Annex IV	Appendix II
Brandt's bat <i>M. brandtii</i>	Yes	Data Deficient	Annex IV	Appendix II

Also, under existing legislation, the destruction, alteration or evacuation of a known bat roost is a notifiable action and a derogation licence has to be obtained from the *National Parks and Wildlife Service* before works can commence.

It should also be noted that any works interfering with bats and especially their roosts, including for instance, the installation of lighting in the vicinity of the latter, may only be carried out under a licence to derogate from Regulation 23 of the Habitats Regulations 1997, (which transposed the EU Habitats Directive into Irish law) issued by NPWS. The details with regards to appropriate assessments, the strict parameters within which derogation licences may be issued and the procedures by which and the order in relation to the planning and development regulations such licences should be obtained, are set out in Circular Letter NPWS 2/07 "Guidance on Compliance with Regulation 23 of the Habitats Regulations 1997 - strict protection of certain species/applications for derogation licences" issued on behalf of the Minister of the Environment, Heritage and Local Government on the 16<sup>th</sup> of May 2007.

Furthermore, on 21<sup>st</sup> September 2011, the Irish Government published the European Communities (Birds and Natural Habitats) Regulations 2011 which include the protection of the Irish bat fauna and further outline derogation licensing requirements re: European Protected Species.



## References

- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979
- EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive) 1992
- European Communities (Birds and Natural Habitats) Regulations 2011 Government of Ireland, Dublin
- Kelleher, C. and Marnell, F. 2007 *Bat Mitigation Guidelines for Ireland – Irish Wildlife Manuals No. 25*. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin
- Marnell, F., Kingston, N. and Looney, D. 2009 *Ireland Red List No. 3: Terrestrial Mammals*. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin
- Wildlife Act 1976 and Wildlife Amendment Acts 2000 and 2010. Government of Ireland
- Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016)  
[https://cdn.bats.org.uk/pdf/Resources/Bat\\_Survey\\_Guidelines\\_2016\\_NON\\_PRINTABLE.pdf?mtime=20181115113931&focal=none](https://cdn.bats.org.uk/pdf/Resources/Bat_Survey_Guidelines_2016_NON_PRINTABLE.pdf?mtime=20181115113931&focal=none)
- Bat Mitigation Guidelines for Ireland (NPWS, 2006)  
<https://www.npws.ie/sites/default/files/publications/pdf/IWM25.pdf>
- Marnell, F., Kelleher, C. & Mullen, E. (2022) Bat mitigation guidelines for Ireland v2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland. <https://www.npws.ie/sites/default/files/publications/pdf/IWM134.pdf>
- Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes (NRA, 2006).  
[https://www.tii.ie/technical-services/environment/planning/Best\\_Practice\\_Guidelines\\_for\\_the\\_Conservation\\_of\\_Bats\\_in\\_the\\_Planning\\_of\\_National\\_Road\\_Schemes.pdf](https://www.tii.ie/technical-services/environment/planning/Best_Practice_Guidelines_for_the_Conservation_of_Bats_in_the_Planning_of_National_Road_Schemes.pdf)