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Cork City Social Housing

Westside, Model Farm Road - Environmental Impact Assessment Screening Report

Cork City Council

June 2022

Notice

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Client	Cork City Council
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1. Introduction

Atkins Ireland have been commissioned by O'Mahony Pike Architects to prepare an Environmental Impact Assessment (EIA) Screening Report as part of a Part 8 planning application to Cork City Council (CCC) for a new residential development at Westside, Model Farm Road, Cork.

1.1. The Proposed Project

The social housing project will be situated at the Westside site, located on Model Farm Road within the suburbs of Cork City in Bishopstown. The site of the proposed development is a brownfield site which was formerly owned by Blackwater Motors and is approximately 0.244 hectares in area. The social housing project will be situated at the Westside site, located on Model Farm Road within the suburbs of Cork City in Bishopstown. The site was developed for use as a sales showroom and garage in the 1990's and has been in use for this purpose since then. It is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned and grubbed out. The site is relatively flat and is bounded by the Model Farm Road to the north, Parchment Square apartments to the south, a service station to the west and the Parchment Square access road to the east. The area of the site including allowance for pipe laying (as set out below) is 0.7251ha.

The proposed development will consist of the construction of a 4-5 storey building containing 43no. apartments (17no. 1-bed and 26no. 2-bed apartments), each with private balcony/terrace, as well as a ground floor bin store and plant area, and all associated site development works, services provision (including new foul and storm drainage connections to existing network), landscaping/public realm works, 13no. car parking spaces and 102no. bicycle parking spaces located at ground level. Detailed proposed project description is in Section 3.3.1.

This EIA Screening Report has been prepared only for the proposed residential development (i.e. the subject of this planning application). The location of the proposed residential development is illustrated in Figure 1.1.

1.2. Purpose of this Report

This report has been prepared to support a planning application by CCC in relation to the proposed residential development. The purpose of this report is to determine whether the proposed project requires the preparation of an Environmental Impact Assessment Report (EIAR). The proposed project has been screened to generate a summarised overview of the potential impacts on the receiving environment, and in the context of relevant statutory requirements

A Stage 1 Screening for Appropriate Assessment (AA) has also been prepared (Atkins, 2022). The Screening for AA concluded the following '*the proposed project, individually or in-combination with other plants and projects, will not have likely significant effects on European sites, including Great Island Channel SAC and / or Cork Harbour SPA, in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment*' (Atkins, 2022).

Figure 1-1 - Red line boundary of both the site and proposed works to lay foul sewer (showing the red-line boundary of the application site)

2. Methodology

The Environmental Impact Assessment (EIA) screening has been undertaken for this project based on the following methodology. The project has been screened in accordance with Section 3.2 of the '*Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft*' (EPA, 2017), the Environmental Impact Directive (85/337/EEC) and all subsequent relevant amendments, Planning and Development Regulations (2001-2022), including S.I. No. 296 of 2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 and The Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (DoHPLG, 2018).

As set out under the relevant legislation (detailed further in Section 2.1 of this report), there are three key steps when carrying out EIA screening for a particular project;

- **Step 1** is to determine if the proposed residential development works represent a project as understood by the Directive and if a mandatory EIAR is required. Such projects are defined in Article 4 of the EIA Directive and set out in Annexes I and II of the Directive and Planning and Development Regulations (2001-2022), specifically Schedule 5, Part 1 – Development for the purposes of Part 10.
- **Step 2** is to determine whether the project exceeds a specific threshold as set out in Planning and Development Regulations (2001-2022) Schedule 5, Part 2 – Development for the purposes of Part 10 (the only type of project to which thresholds do not apply are those considered to always be likely to have significant effects and therefore require an EIAR).
- **Step 3 (if required)** is to determine if the project is likely to have significant effects on the receiving environment. There are no exacting rules as to what constitutes "significant" in terms of environmental impacts. The responsibility is on Planning Authorities to carefully examine every aspect of a development in the context of characterisation of the project; location of the project and type and characteristics of potential impacts. It is generally not necessary to provide specialist studies or technical reports to complete this screening process, rather to investigate where further studies may be required, and where risks, if any, to the integrity of the receiving environment may lie.

For the purposes of screening sub-threshold development for an EIA, all of the relevant information as presented within the EIA Planning and Development Regulations 2018 (Schedule 7A) has been provided on behalf of the applicant, CCC. The potential of this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations (2001-2022), including S.I. No. 296 of 2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (Schedule 7).

The findings of the EIA screening assessment prepared for the project has informed our professional opinion as to whether an EIAR is warranted for the proposed project, with due regard to all relevant statutory requirements and technical guidance. However ultimately it is the responsibility of the competent authority to make a determination as to whether an EIAR is required for a particular project. Figure 2-1 provides a summary of the main steps involved in the EIA Screening Process.

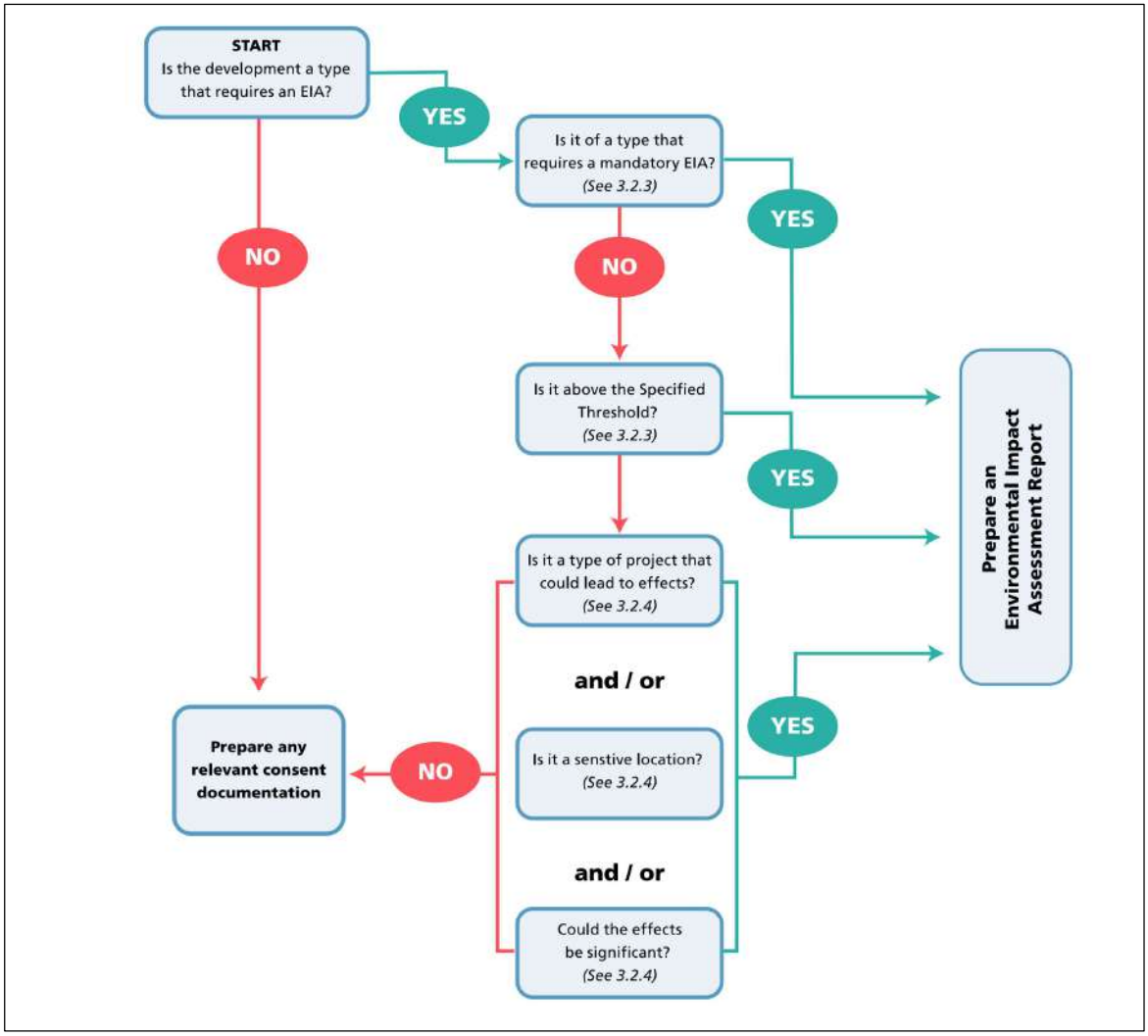

Figure 2-1 - EIA Screening Process (Source: 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft' (EPA, 2017)).

2.1. Relevant Legislation

The Environmental Impact Directive (85/337/EEC) was brought into force in 1985. Subsequent amendments were made with the following pieces of legislation - 97/11/EC, 2003/35/EC, 2009/31/EC, 2011/92/EU and 2014/52/EU. The Directive was originally transposed into Irish Law by the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349/1989). This amended the Local Government Planning and Development Act 1963 and introduced the requirement for an Environmental Impact Assessment in certain specified circumstances. The most recent amendment to the Directive is focused on clarifying and simplifying the process of EIA. The screening criteria have been updated, and Member States have a mandate to simplify their assessment procedures. EIA reports are to be made more readily understandable to members of the general public.

New EIA Regulations ((Planning and Development) Environmental Impact Assessment) Regulations 2010 (S.I No. 296 of 2018)) transposing the 2014 EIA Directive were recently adopted and came into operation on 1st September 2018. These regulations amend the Planning and Development Regulations 2001 (S.I. No.600 of 2001); they seek to transpose EIA Directive 2014/52/EU and to give further effect to the 2011 Directive, as follows:

- An EIAR is a mandatory requirement on specified large-scale projects, which have a high likelihood of impacting on the receiving environment. These projects are listed in full within the Planning & Development Regulations (2001-2022), Schedule 5, Part 1 – Development for the purposes of Part 10.
- Each EU Member State has discretionary consideration for the requirement of an EIA in relation to various processes and activities. These projects are listed in full within the Planning & Development Regulations (2001-2022), Schedule 5, Part 2 – Development for the purposes of

Part 10. If the proposed project is listed under Schedule 5, Part 2, but does not exceed the relevant stated thresholds, it is considered to be sub-threshold. Part 10, article 92 of the Planning & Development Regulations, 2001 as amended states "*'sub-threshold development' means development of a type set out in Part 2 of Schedule 5, which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development".* Any sub-threshold development should be evaluated to determine if the project is likely to have a significant impact on the environment.

- Criteria to evaluate whether significant impacts on the receiving environment will arise from a proposed development are listed under Schedule 7 of the Planning & Development Regulations (2001-2022). A list of the relevant information to be provided by the applicant or developer for the purposes of sub-threshold EIA screening is presented in Schedule 7A of the Regulations, and summarised below:

    1. A description of the proposed development, including in particular:

        (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works; and,

        (b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.

    2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
    3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from:

        (a) the expected residues and emissions and the production of waste, where relevant: and,

        (b) the use of natural resources, in particular soil, land, water and biodiversity.

    4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

3. Environmental Impact Assessment Screening

3.1. Step 1 - Mandatory Screening for EIA

The residential development has been screened against the list of developments, which have a high likelihood of impacting on the receiving environment and therefore require the mandatory preparation of an EIA, under Schedule 5 Part 1 of the Planning and Development Regulations as amended, 2001-2022. This project does not fall within any category of development requiring a mandatory EIA; hence the preparation of an EIAR is not required under Schedule 5 Part 1.

3.2. Step 2 - Threshold Screening for EIA

The proposed development has been screened against the types of development, various processes and activities listed in Schedule 5 Part 2 of the Planning and Development Regulations as amended 2001-2022. The proposed project may fall within the following categories[1], which provide that an EIA must be completed – subject to specified thresholds being met or exceeded.

10. Infrastructure projects

(b) (i)

Construction of more than 500 dwelling units.

(b) (iv)

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

15. Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development, but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.

3.2.1. Infrastructure Projects

The proposed project may be considered to be an '*urban'* infrastructure project constructed 'built-up area'. The area of the proposed development is ca. 0.7251ha and will involve the construction of 43no. dwelling units therefore does not require an EIAR to be produced in accordance with Schedule 5 Part 2 (10) (b) (i) and (iv).

3.2.2. Sub-threshold Development Likely to Have Significant Effects on the Environment

Having regard to the scale and nature of the project and based on a considered assessment as outlined in Section 3.3 and 3.4 of this report, taking account of all available information including proposed standard, routine control measures, the overall probability of impacts on the receiving environment arising from the proposed development (during the construction or operational phases) is considered to be low.

3.3. Step 3 - Determining if the project is likely to have significant effect on the receiving environment.[2]

3.3.1. Description of the Proposed Development (Schedule 7A (1))

A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))

The project involves the construction of a residential development at Westside, Model Farm Road in Cork City. The site of the proposed development is a brownfield site which was formerly owned by Blackwater Motors and is ca. 0.2445 hectares in area. The pipeline corridor along the Model Farm Road and Melbourne Court Road is ca. 0.4806ha, giving a total of 0.7251ha for the application site. The site was developed for use as a sales showroom and garage in the 1990's and has been in use

[1] Pursuant to Schedule 7(A) of the Planning and Development Regulations as amended 2001-2022

for this purpose since then. It is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned and grubbed out. The site is relatively flat and is bounded by the Model Farm Road to the north, Parchment Square apartments to the south, a service station to the west and the Parchment Square access road to the east. All demolition waste will be removed from site and disposed of at an appropriately licenced facility.

The proposed development will consist of the construction of a 4-5 storey building containing 43 no. apartments (17 no. 1-bed and 26 no. 2-bed apartments), each with private balcony/terrace, as well as ground floor bin store and plant, and all associated site development works, services provision, landscaping/public realm works, 13 no. car parking spaces and 102 no. bicycle parking spaces located at ground level. Refer to Figure 3.1 for the site layout.

The proposed works are outlined in a series of architectural drawings prepared by O'Mahony Pike Architects and engineering drawings prepared by PUNCH Consulting Engineers and supplied as part of the planning documentation. These should be viewed when considering the Appropriate Assessment Screening report. Much of the following information which describes the proposed development has been extracted from the Engineering Planning Report prepared by PUNCH Consulting Engineers in March 2022. This report outlines the surface water drainage design, foul drainage design and watermain design for the proposed development. Roads design issues and Flood Risk are also addressed in the Engineering Planning Report.

The anticipated le length of construction in 5-6 months. The maximum depth of excavation is anticipated to be 1.8m within the site and 4.0m at manhole f1-11 where the foul sewer tie-in within Curraheen River Park is to take place (see also WES-PUNCH-XX-XX-DR-0100 and WES-PUNCH-XX-XX-DR-0101).

Access to the site will be via a new entrance on Model Farm Road A 5.5m wide shared surface entrance will be provided to access parking to the rear of the site.

The proposed access has been designed in accordance with the Design Manual for Urban Roads and Streets (DMURS) and the Recommendations for Site Development Works. DMURS aims to aid the design of safer, more attractive, and vibrant streets which will generate and sustain communities and neighbourhoods. As well as cars and other vehicles this encompasses pedestrians, cyclists and those using public transport. Sight lines at the entrance to the site were designed in accordance with DMURS based on existing speed limits. The proposed turning area within the development has been designed in compliance with the Recommendations for Site Developments Works in Housing Areas document and a vehicle tracking analysis has been undertaken to verify the adequacy of this area for turning refuse vehicles.

Landscaping proposals for the scheme have been developed by Cathal O'Meara Landscape Architects. A Landscape Plan accompanies this application. This includes for areas of lawn, hedging (hornbeam; yew), climbers and ornamental trees.

Stormwater Drainage

The proposed surface water drainage system has been designed using Causeway Flow software in accordance with the Department of Environment and Local Government's guidance document "*Recommendations for Site Development Works for Housing Areas*", with guidance taken from the "*Greater Dublin Strategic Drainage Study*" (GDSDS) and the Cork City Development Plan.

A new surface water sewer network shall be provided for the proposed development which will be entirely separated from the foul water sewer network. All surface water run-off from hardstanding areas is designed to be collected by a gravity pipe network and will discharge to a new storm sewer which is required to run down Model Farm Road and turn north to run along the eastern boundary of the Melbourne Court estate before tying in to dedicated storm sewer network which serves Melbourne Court.

Notwithstanding that this is a brownfield site, in line with best practice the storm flows from the development will be restricted by means of a hydrobrake to the equivalent peak greenfield runoff rate, (QBAR), which has been calculated as 1.51 litres per second in accordance with the IH124 report published by the Institute of Hydrology (i.e. *F Estimation for Small Catchments*). As a consequence of this flow limitation, an attenuation tank will be required to store surface waters in extreme events. A system suitable for shallow cover depth installations will be required as outfall level constraints dictate that the attenuation tank cannot be installed at significant depth.

The proposed stormwater sewers have been designed using Causeway Flow software. The drainage model results confirm that all proposed finished floor levels are 500mm above drainage water levels for a 100-year return period, in accordance with the requirements of the GDSDS. Levels and drainage

have been designed to ensure that no surface water generated by the development site outfalls to the Model Farm Road.

Petrol Interceptor

It is proposed that all surface water run-off from car parking areas and internal roads will outfall via a Class 1 Bypass Separator located within the access road to the site. This device will remove hydrocarbons and fine sediment particles from the site runoff and lower the risk of downstream contamination following an oil spillage on site.

Bypass separators fully treat all flows generated by rainfall rates of up to 6.5mm/hr. This covers over 99% of all rainfall events. Flows above this rate are allowed to bypass the separator. These separators are used when it is considered an acceptable risk not to provide full treatment for high flows, for example where the risk of a large spillage and heavy rainfall occurring at the same time is small.

Class 1 devices are designed to achieve a concentration of less than 5mg/l of oil under standard test conditions. Please refer to Appendix B (of the Engineering Report) for calculations regarding the proposed Petrol Interceptor Nominal size in accordance with EN 858-2. The Petrol Interceptor installed at the site will have a nominal size in excess of 8.75 l/sec as calculated.

Foul Water Drainage

The proposed foul water sewers have been designed using Causeway Flow software in accordance with the DOE's "*Recommendations for Site Development Works for Housing Areas*". The foul loading has been calculated in accordance with "Code of Practice for Wastewater Infrastructure" published by Irish Water.

The initial pre connection enquiry made for the site by Cork City Council received a confirmation of feasibility letter which requested that the proposed development discharge at Eden Hall to the west of the site, however construction of a gravity sewer running east to west along Model Farm Road would necessitate excavation depths of up to 6m due to the topography of the area.

Subsequently a proposal was made to Irish Water to discharge to the existing foul sewer network to the northeast of the site, thereby reducing excavation depths and requiring most of the substantial construction to be undertaken in green areas. This approach was agreed in principle with Irish Water and a design submission was made on this basis. Irish Water subsequently issued a Statement of Design Acceptance. It will be necessary to construct approximately 300m of additional 225mm foul sewer in parallel to the new storm sewer.

A wayleave of approximately 6m total is typical for sewers so it is anticipated that 6m would be the maximum width of vegetation clearance required when constructing the foul sewer into and though Curraheen River Park.

Decommissioning & Demolition

As noted, it is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned and grubbed out, as will the existing tarmacadam surface. These will be decommissioned, removed from site and disposed of at an appropriately licenced facility.

As noted, the existing building is served by a septic tank located in the southwestern corner of the site. This will also be decommissioned, removed from site and disposed of at an appropriately licenced facility.

Figure 3-1 - Proposed Site Layout

A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A (1)(b)).

The site of the proposed development is a brownfield site which was formerly owned by Blackwater Motors with the pipeline corridor contained within a section of the R608 and green space to the east of the Melbourbne Court Housing estate. It is approximately 0.7251 hectares in area. The residential development site area was developed for use as a sales showroom and garage in the 1990's and has been in use for this purpose since then. It is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned. The site is relatively flat and is bounded by the Model Farm Road to the north, Parchment Square apartments to the south, a filling station to the west and the Parchment Square access road to the east. The pipeline corridor is bordered by the Melbourne Close housing estate to the west and the Cork Business Park on the east. The pipeline corridor extends into an area of green space as far as the Curraheen River Walk. Tree and vegetation clearance will be required for the pipelaying works.

The boundaries of the site comprise concrete walls and fences. The eastern boundary which adjoins the council offices comprises a metal fence with ornamental bushes planted on the opposite site. The northern side of the Model Farm Road also includes a mix of residential properties, apartments and commercial units; while further residential developments (e.g. Rossbrook Housing estate) extend to the southwest.

The pipeline route passes along the Model Farm Road and northwards to River Park walkway, with parts of the route bordered by treeline.

Under the Cork City Development Plan 2015-2022 and the non-statutory Bishopstown and Wilton Area Action Plan (adopted October 2007), the location for this development is zoned as '*Business and Technology'* (2015, CCC), with the following objective clearly stated within the Cork City Development Plan (CCC, 2015):

> *'To provide for high technology related office based industry'*

The location of the proposed development is detailed in Section 3.3.1. The environmental sensitivity of geographical areas, which could potentially be affected by the proposed development is evaluated in the following section.

Hydrology and European Sites

All surface hydrological features within the vicinity of the proposed development follow topography and flow in an easterly direction towards the coast. The proposed project is located within the Lee, Cork Harbour and Youghal Bay catchment area and the Glasheen [Corkcity]_SC_010 sub catchment area. (EPA, 2022).

The closest water feature to the proposed development is the Curragheen River (IE_SW_19C120740) (EPA, 2022). The Curraheen River, which is located 450m to the west of the site where the Model Farm road crosses the river at Carrigrohane Bridge, is a tributary of the River Lee. Downstream of Carrigrohane Bridge the river turns to flow in an easterly direction towards Cork City. It is joined by the Glasheen River close to Victoria Cross. The river enters the South Channel of the River Lee just downstream of Victoria Cross (2.7km downstream of the crossing with the Model Farm Road). After flowing through the City, the River Lee discharges to Cork Harbour.

There are two European designated sites within the potential zone of influence of the proposed project; Great Island Channel SAC (001058) and Cork Harbour SPA (004030).

Great Island Channel SAC is situated in the inner area of Cork Harbour, north of Great Island and on the eastern side of Cork Harbour. Great Island Channel SAC is located ca. 13.4km straight-line distance to the east of the proposed project. There is no direct connection with Great Island Channel SAC. It must be assumed that surface water drainage from the environs of the site ultimately reaches the Curraheen River, which flows to the west / north; either by direct outfall or via infiltration to groundwater. Great Island Channel SAC is located 14.7km downstream of Carrigrohane Bridge, where the Model Farm Road (R608) crossed the Curraheen River. The SAC is designated for intertidal mudflats and sandflats and Atlantic salt meadows.

Cork Harbour SPA is comprised of a number of discrete elements distributed throughout the harbour. The nearest elements are Douglas Estuary, the western side of Lough Mahon and the shoreline at Dunkettle. Cork Harbour SPA at Douglas Estuary is located ca 6.8km straight-line distance to the east of the proposed project. There is no direct overlap with the SPA. The closest hydrological connection to the SPA is via the Curraheen River which is located 450m to the west of the site where the Model Farm Road crosses the river (Carrigrohane Bridge). The SPA is located 10km downstream

of this river crossing (i.e. close to Blackrock Castle and the outfall of the Glashaboy River at Dunkettle Shore). There is no suitable habitat within the proposed site which would support the qualifying interests of the SPA.

There are no Natural Heritage Areas (NHA) within 15km of the proposed site. There are 14no. proposal Natural Heritage Areas (pNHAs) within 15km of the proposed project. The closest pNHA to the proposed project is the Lee Valley pNHA (Site Code: 000094) which is located ca. 0.8km north of the project and is not hydrologically connected to the site. The site is hydrologically linked to the Douglas River Estuary pNHA (Site code: 001046) and Dunkettle Shore pNHA (Site code: 001082) via the Curragheen River.

There are no Geological Heritage Areas within the site. The closest Geological Heritage Area to the site is '*St. Joseph's section on Lee Road'* (IGH 10) described as a geological *'transition to carboniferous'* which is located ca. 0.80km north east of the site (GSI, 2022). There is no hydrological link between the site and the Geological Heritage Area.

There will be no land take from any of the designated sites within 15km of the proposed development and, based on the findings of the Stage 1 Appropriate Assessment Screening report (Atkins, 2022) there will be no potential significant adverse effects to the receiving environment arising from the proposed development.

Biodiversity

The site was visited on 27th April 2021 by an Atkins ecologist. It was also viewed again form site boundaries on 10th March 2022 to ensure the site remained unchanged. While on site, semi-natural habitats present were recorded following *Best Practice Guidance for Habitat Survey and Mapping* (Smith *et al*., 2011); *A Guide to Habitats in Ireland* (Fossitt, 2000); and *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* (NRA, 2009). Curraheen River Park was visited on the 18th April 2022.

The proposed site comprises artificial surfaces (BL3). There is very little vegetation present on site. No invasive plant species listed on the 3rd Schedule of the Natural Habitats Regulations S.I (477/2011) were recorded on site. However, butterfly bush (*Buddleia davidii*) was recorded along the southern and eastern boundaries (within the site), along with bramble (*Rubus fructicosus*). Atkins completed an Appropriate Assessment Screening Report (2022) for the proposed site which stated that '*the site is predominantly open with no habitats present which could support protected species. Apart from one corner with butterfly bush and bramble, there are no trees or bushes to support nesting passerine birds. The site does not offer supporting habitat to foraging or roosting water birds. There was no evidence of animal activity on site and the nature of site (i.e. predominantly artificial surfaces) does not provide suitable resting or breeding places for animals. There was litter recorded on site a pile of steel rebar being stored in one area'.*

As noted, it will be necessary to run a foul sewer along Model Farm Road, north along the access road on the eastern side of Melbourne Court and through Curraheen River Park. This area was visited on the 18th April 2022. Atkins (2022) states that '*at the end of the road adjacent to Melbourne Court, the road turns eastwards to enter the industrial park. It is bordered by amenity grassland and a stone wall / palisade fence. North of the fence is an area of grassland and gorse scrub (WS1), with a treeline (WL2) along the bottom of the hill'.*

Hydrogeology

There are no wells present within the site boundary. The closest well is located ca. 0.36km north of the proposed development (used for industrial purposes) (GSI Ref No. 1407SEW093) (GSI, 2022).

There are no reported Public Drinking Water Supply or Source Protection Zones within 2km of the proposed development (GSI, 2022). The closest Public Supply Source Protection Area is the Carraignabhfear Public Water Supply (Outer and Inner Source Protection Zone) which is located ca. 11km north of the proposed development (GSI, 2022). The closest Group Scheme Preliminary Sources Protection Area (SPA) is the Faran SPA (Outer and Inner Source Protection Zone) located ca. 15m west of the proposed development (GSI, 2022). Taking account of the distance of this public water supply there is no residual risk to regional potable supplies.

The proposed development is underlain by a regionally important gravel aquifer – Karstified (GSI 2022). Groundwater vulnerability beneath the development has been classified as predominately 'high', with a small portion to the north east of the development underline by 'extreme' groundwater vulnerability (GSI, 2022). Along the proposed pipe laying, the groundwater vulnerability is underline by 'extreme' and 'rock at or near surface or karst' (GSI, 2022).

Geology

The bedrock beneath the proposed development is underlain by massive unbedded lime-mudstone of the Waulsortian Limestone Formation to the northern portion of the proposed site and red brecciated calcilutite limestone of the Cork Red Marble Formation to the southern portion of the proposed development (GSI, 2022). The quaternary sediment underlining the site is predominately 'urban' with portions of 'till derived from devonian sandstones' and 'bedrock outcrop or subcrop underlining the location of the proposed pipe (GSI, 2022).

There is no evidence of any karst features being present within the general vicinity of the proposed development. The closest karst landform (GSI Reference: 1405NEK002) is a spring located ca. 2.1km south west (GSI, 2022).

There are no historic landslide events or designated landslide susceptibility issues in the vicinity of the proposed site (GSI, 2022).

Flooding

The site has been screened with regard to potential flood risk associated with both baseline conditions, and the proposed development. According to the relevant guidance document; 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' (DOEHLG, 2009), one of the guiding principles of flood risk assessment is that assessments should be '*proportionate to the risk scale, nature and location of the development*'. In the first instance flood risk identification is carried out; identification is the process for deciding whether a plan or project requires a flood risk assessment and is essentially a desk-based exercise based on existing information (DOEHLG, 2009).

No historic flooding events are recorded within the vicinity of the proposed development (OPW, 2022).

Punch Consulting Engineers completed the Engineering Planning Report (2022) and stated that '*the proposed development is located within Flood Zone C. This zone defines areas with a low probability of flooding. For river flooding it is defined as less than 0.1% probability or between less than 1 in 1,000 years, also for coastal flooding less than 0.1% probability or less than 1 in 1,000 years'.*

The risk of flooding associated with the current receiving environment is therefore low. The nature, along with the location of the proposed development, is unlikely to give rise to any potential flood risk. No flooding or surface water management issues related to the proposed site have are identified as warranting further investigation. Accordingly, based on the low probability of flooding, along with the scale, nature and location of the development, potential flood risk has been screened out at this preliminary juncture. No flood risk has been identified.

Archaeology and Cultural Heritage

There are no National Inventory of Architectural Heritage (NIAH) or National Monuments Services 'Sites and Monuments Records' (SMR) features within the proposed site boundary. There are 2. SMR and 2no. NIAH features located within 500m of the proposed development:

- Country house (Reference Number: CO073-085----) is located ca. 496m north east of the proposed development and described as:

  'Early 18th century 2-storey house, on low-lying ground S of River Lee. Entrance front (W) of 3 bays; central square-headed doorway; narrow sash windows with shallow reveals. Garden front (S) 4 bays deep; 2-storey, 3-bay hipped roof addition attached to SE corner; stairway addition obscures E front. W, E and S elevations weather-slated at 1st floor level. Sprocketed hipped roof with carved limestone cornice to E, S and W; chimney off-centre to E; to N, exposed gable with 3 narrow attic windows under apices of E and W roofs; 2 chimneys just inside apices and cross wall between them from top of gable. Cobbled yard to E enclosed by 1-storey outbuildings; S range built with ashlar blocks. Local tradition of well close to house; circular pond marked 'Fish Pond' on 1842 OS 6-inch map fed by water channel to S of house may mark location.'

- Earthwork (Reference Number: CO074-070----) is located ca. 415m north east of the proposed development and described as:

  'In low-lying marshy ground, c. 330m S of river Lee. Prior to excavation (Hartnett 1946, 126-136) site was 'raised, roughly circular area about 60' in diameter averaging 3' over the mean level of the surrounding field'. There was no bank but 'a slight dishing towards the centre'. Excavation revealed a natural undisturbed platform of sand and gravel under an old turf line. Atop this, an uneven layer of trampled clay and gravel covered by another

layer of turf and humus. Evidence for habitation was three open hearths (shallow pockets of ashes and charcoal containing burnt bone) and 'at least one undeniable posthole'. The excavator concluded that the natural platform was adapted for casual habitation by 'piling upon it material scraped up from the ground outside' and that 'the habitation of the site was seasonal and of brief duration'. The finds included several flints, lead, glass, iron-slag, glazed pottery (17th century +) and iron fragments but were 'useless as dating criteria'. A causeway or road approaching site rom W was found to be associated with it. No visible surface traces.'

- Outbuilding – (Reg. No. 20865017) is located ca. 450m north east of the proposed development.
- Office / College – (Reg. No. 20865018) is located ca. 475m north east of the proposed development (Historic Environment Viewer 2022).

These sites are unlikely to be affected by the proposed development. The environmental sensitivity of geographical areas likely to be affected by the proposed development are evaluated further within Section 3.4.2 of this report ('*Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development*') as required under Schedule 7 of the relevant regulations.

3.3.2. Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).

The proposed development does not lie within any European sites, nature reserves or existing / proposed natural heritage areas (detailed in Section 3.3.1 of this report). There are 2no. European sites within 15km of the site. A Stage 1 Screening for Appropriate Assessment (AA) has also been prepared (Atkins, 2022). The Screening for AA concluded the following '*the proposed project, individually or in-combination with other plants and projects, will not have likely significant effects on European sites, including Great Island Channel SAC and / or Cork Harbour SPA, in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment'.*

As outlined previously in Section 3.3.1 the proposed development is unlikely to have any significant effects during the construction phase on identified archaeological or architectural features within the immediate vicinity of the proposed development.

During the construction phase of the project, a construction compound will be established within the site boundary. It will be the responsibility of the Contractor to determine a suitable location for the site compound within the proposed development area, but away from any identified environmental sensitive receptors (watercourses etc) so as to avoid potential impacts to the environment and the general public. This will not be located in proximity to any drains or surface water features through which sediment or other pollutants such as hydrocarbons could be discharged to the Curraheen River and ultimately to Cork Harbour. There will be no direct impacts to the Curraheen River due to the geographical location of the proposed development site on the Model Farm Road relative to the watercourse; no works are proposed in or close to any watercourse on the brownfield site on the Model Farm Road.

The only other relevant aspects of the environment (including human health), which could potentially be significantly affected by the proposed development are receiving groundwater environment, surface water environment, air quality environment, the receiving noise and vibration environment, and the receiving traffic environment, during the construction phase.

The proposed project will mainly involve excavations for the foundation of the building to an anticipated maximum depth of 1.8m bgl. GSI (2022) have reported a 'high' groundwater vulnerability rating for site with a small portion to the north east of the development underline by 'extreme' groundwater vulnerability, indicating that the groundwater beneath this portion of the proposed development may be vulnerable to contamination. The anticipated maximum excavations depths for the proposed pipeline is 6m bgl. Shallow groundwater will likely be encountered during construction work and dewatering may be required. However, given the nature of the proposed development, and the current site setting, there will not be a significant impact on local or regional groundwater resources.

There is no overlap or direct connectivity from the proposed project to Cork Harbour SPA and the Great Island Channel SAC. There is a connection to European sites is via a remote hydrological linkage through the surface water drainage system from the site / Model Farm Road to the Curraheen River – River Lee and on to Cork Harbour. However, given the distance between the site and any

outfall points to the Curraheen River (potentially up to 14.7km along a watercourse), it is not likely that any pollution event at the Model Farm Road site could result in significant impacts to Great Island Channel SAC. Due to the nature and scale of the project, geological distance from the proposed site to the surface waterbodies, it is anticipated that the construction and operation of the proposed development will not have a significant impact on surface water quality. Accordingly no significant adverse impacts are anticipated with respect to surface quality, levels or flow.

The nearest potential dust sensitive receptor (student accommodation) is ca. 20m north and south of the proposed development. Dust may be generated during the construction phase. Construction will require the use of machinery such as dump trucks, loading shovels etc. and the presence of such machines may result in a temporary increase of noise and dust. The air quality at the proposed development is *'good'* (EPA, 2022). However, management of dust will be in line with relevant best practice measures such as those set out in *'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes'* (NRA, 2011). As per the Cork City Council Development Plan 2015-2022 under objective 12.18 *'to protect and improve air quality in Cork City in accordance with the Air Quality Standards Regulations 2011 and Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC)'.* Due to the nature and scale of the project it is anticipated that the construction and operation of the proposed development will not have a significant impact on air quality.

Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes'* (NRA, 2014). The works involved during the construction of the proposed residential development will occur during daytime hours. No works will be conducted during night-time hours. Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed development will not have a significant impact on noise.

There is an existing disused motor dealership building onsite surrounded by hardstanding. Occupational Health and Safety Consultancy (OHSS) (2019) conducted an asbestos survey of the site to HSG264 requirements for the purposes of identifying asbestos containing materials (ACMs) in the premises(s) prior to the refurbishment of the area. OHSS (2019) stated that chrysotile asbestos was found in 2no. locations the '*spark guard from electrical panel and the yellow floor tile from floor slab'.* OHSS (2019) concluded that it would be required to '*remove ACM's prior to refurbishment or demolition'.* There is also potential for contamination issues (associated with the historical use of the site) to be encountered arising from the likely onsite storage / use of contaminants in the past.

The demolition contractor shall review the asbestos survey report and allow for the specialist removal of asbestos should this be required. Any asbestos material should be removed by a suitably experienced specialist asbestos removal contractor prior to commencement of any demolition or construction works commencing. Asbestos waste should be securely double bagged and removed from site immediately. Asbestos waste will be hazardous and should be transported and disposed of by a specialist waste disposal contractor (i.e. Rilta Environmental Ltd.). Written confirmation must be obtained to ensure that all structures scheduled for demolition have been certified to be clear of asbestos material before demolition works occur. No demolition works will be permitted to commence until written confirmation has been obtained that all structures scheduled for demolition have been certified to be clear of asbestos material.

Excavation works during the Construction Phase and Demolition Phase should be monitored and in the event that contaminated materials are encountered these will need to be segregated from all uncontaminated soils, temporarily stored (any stockpiles should be lined and covered by heavy duty 1000-gauge plastic), sampled and analysed for relevant parameters (Waste Acceptance Criteria suite e.g. Rilta Disposal Suite). Any contaminated soils must be characterised as per the requirements of the relevant Waste Acceptance Criteria (WAC) under the relevant European Communities Council Decision (EC) (92003/33/EC), and classified in accordance with the requirements of the EPA as set out in the following documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2018). Any contaminated soils must be transported by appropriately permitted hauliers and disposed of to an appropriate EPA licensed Waste Facility in accordance with all relevant waste management legislation.

It is expected that the scheme will commence upon receipt of development consent and it is estimated that the duration of the build will be approximately 5 to 6 months. The pipelaying works are expected to take place over a maximum of 4 weeks. There will be a slight increase in traffic during construction, but this will be a temporary and standard traffic signs and lights will be in place. There will be a slight increase in traffic during the operational stage as the proposed scheme is a residential scheme. It is anticipated that the construction and operation of the proposed development will not have a significant impact on traffic.

3.3.3. A Description of Any Likely Significant Effects (To the Extent of The Information Available on Such Effects) of The Proposed Scheme on The Environment (Schedule 7A(3)).

The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).

The proposed development may give rise to air, noise, water emissions and waste. However, the development will be designed in order to minimise any potential impacts as a result of these emissions during the operational phase. Standard mitigation measures will be implemented by the Contractor to address potential air and noise emissions during the construction phase. The Contractor will ensure that onsite storm water management during the construction phase is carried out in accordance with relevant best practice measures as set out in Construction Industry Research and Information Association (CIRIA) guidance *'C532 - Control of Water Pollution from Construction Sites'.*

The AA Screening report states that *'there will be no direct impacts to the Curraheen River due to the geographical location of the proposed project relative to the watercourse; no works are proposed in or close to any watercourse…..The only connection to European sites is via a remote hydrological linkage through the surface water drainage system to the Curraheen River – River Lee and on to Cork Harbour. There is, accordingly, a hydrological link between the proposed development site and European sites in Cork Harbour; though it should be noted that this link is remote and via a very large body of water. There is no watercourse or open drain within the site boundary.* The AA Screening report states that '*due to the nature of proposed works; i.e. no in-stream works along the Curraheen River; the distance between Westside and Great Island Channel SAC / Cork Harbour SPA, as well as the extent and duration of the proposed works; no negative impacts to European sites, notably Great Island Channel SAC / Cork Harbour SPA through surface waters or via disturbance are anticipated'* (Atkins, 2022).

It is proposed that all surface water run-off from car parking areas and internal roads will outfall via a Class 1 Bypass Separator located within the access road to the site. This device will remove hydrocarbons and fine sediment particles from the site runoff and lower the risk of downstream contamination following an oil spillage on site.

The proposed residential development will be modular and utilise off-site construction methods, either 2D panelised (typically Light Gauge Steel) or 3D volumetric (Light Gauge Steel or concrete). No negative impacts to European sites are anticipated from these construction activities.

The AA Screening Report concluded that '*on the basis of objective information, the proposed project, individually or in-combination with other plants and projects, will not have likely significant effects on European sites, including Great Island Channel SAC and / or Cork Harbour SPA, in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment'* (Atkins, 2022).

During the site visit litter was recorded on site, and a pile of steel rebar was also observed to be stored in one area. Any onsite waste should be removed firstly before the demolition phase commences. The waste will be transported by appropriately permitted hauliers and must be disposed of to an appropriately authorised disposal / recovery facility (via. valid Certificate of Registration, Waste Facility Permit, or Waste Facility Licence).

There is an existing disused motor dealership building onsite surrounded by hardstanding. Occupational Health and Safety Consultancy (OHSS) (2019) conducted an asbestos survey which found chrysotile asbestos in the '*spark guard from electrical panel and the yellow floor tile from floor slab*'. OHSS (2019) recommended the following: '*remove ACM's prior to refurbishment or demolition'.* The OHSS report may be '*used by the Project Supervisor for Design Process and the designers to highlight the presence of asbestos containing materials found in the buildings'* (OHSS, 2019). Any asbestos material should be removed by a suitably experienced specialist asbestos removal contractor prior to commencement of any demolition or construction works commencing.

The demolition contractor shall review the asbestos survey report and allow for the specialist removal of asbestos waste should be securely double bagged and removed from site immediately. Asbestos waste will be hazardous and should be transported and disposed of by a specialist waste disposal contractor (i.e. Rilta Environmental Ltd.). Written confirmation must be obtained to ensure that all structures scheduled for demolition have been certified to be clear of asbestos material before demolition works occur. No demolition works will be permitted to commence until written confirmation has been obtained that all structures scheduled for demolition have been certified to be clear of asbestos material.

In accordance with best practice, a pre-demolition survey will be undertaken by the contractor prior to the commencement of the demolition works. All the waste arisings requiring reuse, recycling, recovery or disposal will be brought to facilities holding the appropriate Certificate of Registration, Waste permit or Waste Licence, as required. As noted, the existing building is served by a septic tank located in the southwestern corner of the site. This will also be decommissioned, removed from site and disposed of at an appropriately licenced facility. There is also potential for contamination issues (associated with the historical use of the site) to be encountered arising from the likely onsite storage / use of contaminants in the past. Should any ground contamination be encountered during the construction phase of the development the Employer and Employers Representative should be immediately notified and consulted with. Appropriate measures must be put in place, including appropriate transport and disposal of such waste materials to a suitably licenced facility in accordance with all relevant waste legislation.

According to the EPA '*Correct classification is the foundation for ensuring that the collection, transportation, storage and treatment of waste is carried out in a manner that provides protection for the environment and human health and in compliance with legal requirements'*. Hence soils requiring offsite disposal must be characterised as per the requirements of the relevant Waste Acceptance Criteria (WAC) under the European Communities Council Decision ((EC) 92003/33/EC) 'COUNCIL DECISION of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC'. Soils requiring offsite disposal will also require waste classification in strict accordance with the requirements of the EPA as set out in the following document 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2018). All waste soils removed from site must be transported by appropriately permitted hauliers and must be disposed of to an appropriately authorised disposal / recovery facility (via. valid Certificate of Registration, Waste Facility Permit, or Waste Facility Licence).

The construction phase of the development may generate waste such as construction and demolition waste, plastic wrapping, wooden pallets, windows, glass and materials from building fabric, metals (copper & steel piping steel and re-bar), electrical cable, reinforcing steel waste, soil arisings or waste electrical and electronic equipment (WEEE). All waste will be removed, segregated and temporarily stored before being recycled or disposed of by the Contractor to an appropriately licenced waste recovery or waste disposal facility. All waste generated during the proposed development will be disposed of by the Contactor in accordance with all relevant waste management legislation.

A new foul service will connect to each property. The new connection will tie into the existing foul sewer network to the northeast of the site, which will involve construction to be undertaken in green areas. All foul water will ultimately be treated at the Carrigrennan Wastewater Treatment Plant.

During the operation of the proposed residential development waste will be generated. Waste materials generated during the Operational Phase will primarily comprise household waste (including dry recyclables (paper, plastic etc.), glass, food and organic waste, domestic refuse)) and occasional maintenance waste (including general waste and green waste). It is assumed that the majority of waste produced during the Operational Phase will be non-hazardous. In the event that any hazardous materials are brought to site for maintenance purposes, the volumes of paints, varnishes, glues, adhesives etc. will be minor, and will be removed offsite and disposed of appropriately by the relevant maintenance contractor. Hazardous wastes (such as waste fuel, oil or chemicals) will therefore not be generated onsite during the Operational Phase. Operational waste of the proposed development will be appropriately characterised, managed and disposed of in accordance with all relevant waste management legislation.

The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).

Natural resources in the area will not be required to facilitate the development during the construction phase. The proposed residential development is located on a site which is formerly used as a sales showroom and garage and comprises of a building onsite surrounded by hardstanding. The project is not located within or in proximity to any European sites.

Landscaping proposals for the scheme have been developed by Cathal O'Meara Landscape Architects. A Landscape Plan accompanies this application. This includes for areas of lawn, hedging (hornbeam; yew), climbers and ornamental trees.

The proposed residential development will involve a maximum excavation depth of 1.8m bgl, with a ca. 4.0m dig for one of the foul manholes required for the upgrade to the Irish Water network and 6m bgl for the proposed pipeline. All soil requiring disposal offsite will require waste classification in accordance with EPA requirements as set out in the documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2015), and 'Determining if waste is hazardous or non-hazardous' (EPA, 2018), and all relevant waste management legislation. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils which require offsite removal and disposal.

Any onsite waste should be removed firstly before the demolition phase occurs onsite. Construction waste generation will be minimised during the proposed construction works. Engineering grade fill material (hardcore or similar) will be imported to the site during the proposed construction.

Therefore, based on the environmental setting, and taking account of the nature, scale and location of the proposed project other than standard construction materials, the proposed project (during both construction and operational phases) will not have a significant impact on natural resources.

3.3.4. The Compilation of The Information at Paragraphs 1 To 3 Shall Take into Account, where Relevant, the Criteria set out in Schedule 7 (Schedule 7A(4)).

All relevant criteria set out in Schedule 7 of the Regulations is presented in Section 3.4 ('*Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA'*) of this screening report.

During the preparation of Sections 3.3.1 to 3.3.3 (i.e. Schedule 7A (1) to (3)) all pertinent Schedule 7 information has been taken account of as required, with specific details presented in the following section of this report (Section 3.4).

Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA[3]

3.3.5. Characteristics of proposed development (Schedule 7(1))

*T*he size and design of the whole of the proposed development (Schedule 7(1)(a))

The proposed development is located within at Westside, Model Farm Road in Cork City as presented in Figure 3-1. Refer to Section 3.3.1 under '*A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))*'.

Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b))

Committed Development

A search of Cork City Council Planning Applications has been undertaken for applications submitted within the last 5 years in the vicinity of the proposed development (last reviewed 25/04/2022). Some of the granted applications have already been completed and of those which are not completed, most are generally of small scale in nature (i.e. residential extension works, or property improvement works). Completed or granted applications of such small scale (such as residential improvements) have not been considered further in terms of potential for cumulative impacts.

9no. projects are committed developments, which have not yet been built or are currently under construction. These developments have been further evaluated for the potential of cumulative impacts and are presented in Table 3-1.

It is considered unlikely that the granted projects occurring within any sites surrounding the development site will act in combination with the proposed project to give rise to significant cumulative impacts on the receiving environment.

[3] Pursuant to Schedule 7 of the Planning and Development Regulations as amended 2001-2020

Table 3-1 - Committed Development in the vicinity of the proposed residential development

Planning Ref	Decision Date	App. Name	Location	Description	Assessment
2140127	18/06/2021	Boston Scientific Ireland Ltd	Boston Scientific Ltd., Cork Business and Technology Park, Model Farm Road, Cork	Permission for the construction of a single storey utilities building with rooftop mechanical plant equipment on its campus. Site works include minor modification to footpaths and steps and site development works. The development is within the curtilage of a Protected Structure PS637 "Former Munster Institute"	This development is located 200m north east of the proposed site. Based on the scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely
2039676	21/01/2021	Citistudent Limited	Former O Mahony Packaging Building, Melbourne Road, Bishopstown, Cork	Permission to complete and retain variations to Blocks A and B of permitted student apartment development (Planning Reg. No. 16/37034 and PL28.248665) at the former O'Mahony Packing Building, Melbourne Road, Bishopstown, by the omission of permitted student bedrooms and staff apartment at ground floor level and their replacement with; Student social/community room, reception and administration office, Gym, laundry, bin store, plant room, study room, storage areas, and 3 no. one-bedroom studio apartments; together with all associated modifications to first, second and third floor levels and alterations to elevations, including an increase of 700mm in the ground floor ceiling height. For clarity, the total number of student bedrooms in the development is to be reduced from 348 to 342.	This development is located 500m north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
2039272	21/12/2020	Dan O Brien	Riverside Farm, Model Farm Road	Permission for the construction of 48 no apartment units in 1 no 4-storey block and all associated ancillary development works including access parking footpaths drainage and landscaping at Riverside Farm Model Farm Road Cork. The proposed apartments will replace 32 no apartments previously permitted under Cork City Council ref 16/37118.	This development is located 350m north west of the proposed site. There may be a potential cumulative impact associated with traffic. However it is highly unlikely that these developments will be constructed as the same time. Cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.

1938659	26/02/2020	Board of Management of Mount Mercy College	Mount Mercy College, Model Farm Road	Permission for the following: Erection of new single storey sports hall with changing rooms, ancillary facilities, associated car parking along with all associated site works	This development is located 1.00km north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
1938616	15/06/2020	Headway Ireland CLG	Headway Ireland CLG, Carrigrohane Road, Cork	Permission for the demolition of a two-storey office building, a single storey boiler house and removal of a fuel storage tank and bunded area, for the refurbishment and remodelling of two existing single storey office buildings and for change of use for these buildings from office use to office and educational use and for the construction of 3 new single storey extensions to these buildings, together with modifications to the site entrance, new landscaping and associated site works, all at site at Carrigrohane Road, Cork.	This development is located 1.30km north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
195417	24/07/2019	University College Cork	UCC sports grounds, Curraheen, Ballinaspig More, Bishopstown, Co. Cork	The development of a Dental Building located at UCC sports grounds. The development consists of the decommissioning of playing pitches within the site boundary and the construction of a dental hospital with ancillary education, research and innovation facilities, central sterile services department, roof top plant enclosure and support service areas, with 2 construction options. Option 1 is for the construction of a part 4-storey, part 5-storey dental hospital building, with ancillary education, research and innovation facilities, central sterile services department, roof top plant enclosure and support service areas. Option 2 is for the construction of a 5-storey dental hospital building, with ancillary education, research and innovation facilities, central sterile services department, roof top plant enclosure and support service areas. Both options will include associated access, carparking, parking kiosk, landscaping, ball fencing, signage and site development works. The development also consists of alterations to the	This development is located 1.30km south west of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.

				site layout, access and parking arrangements for the Health Innovation Hub which was permitted under Planning Register Ref. Nos. 18/4921 and 15/6689.	
1938681	18/08/2020	Boston Scientific Ltd.	Boston Scientific Ltd., Cork Business and, Technology Park , Model Farm Road Cork	Permission for a new administration building of approximately 3,220sqm on its campus at Business & Technology Park, Model Farm Road, Cork. The new building will include canteen, offices ,meeting rooms and support areas over 3 storeys. Mechanical plant equipment and PV panels will be located at roof level. The building will integrate with a number of existing structures on site. Site works include relocation of 35 no. existing car parking spaces and construction of additional 40 no. car parking spaces in a new dedicated car parking area, minor modification to internal road layout, new landscape areas and planting to boundaries. The development is within the curtilage of a Protected Structure PS637 'Former Munster Institute'.	This development is located 200m north east of the proposed site. Based on the scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
1938558	18/12/2019	Cork Institute of Technology	Cork Institute of Technology, Rossa Avenue, Bishopstown, Cork	Permission for the construction of a three storey Learning Resource Centre at Cork Institute of Technology, Rossa Avenue, Bishopstown, Co. Cork. The development will consist of (I) A three storey building with maximum gross floor area of 6,666sqm with screened plant set back at roof level, (II) Provision of 143 no. bicycle stands; (III) Provision of a main plaza and associated landscaping connecting the proposed building with the existing 1970s building (Block B & C); (IV) Provision of a bus stop and bus waiting area on the existing access road to north of the proposed Learning Resource Centre ; (V) Temporary construction signage ; and (VI) All associated site development works. Pedestrian and vehicular access will be from the existing entrances on Rossa Avenue.	This development is located 500m north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
1838057	13/11/2018	Boston Scientific Ltd.	Boston Scientific Ltd., Cork Business and , Technology Park ,	Permission for extension to existing warehouse to include new layout and storage areas, new plantroom and new fire stair, a new escape lobby from cleanroom production areas and the construction of new service yard with new external lighting and modifications to underground	This development is located 200m north east of the proposed site. The Boston Scientific Ltd development will likely be completed before the proposed residential development will

		Model Farm Road Cork	services. Proposed renovations and modifications within the existing warehouse include a new lift and stair and a new office area with the insertion of new windows along the east elevation. The development is within the curtilage of a Protected Structure PS637 'Former Munster Institute'.	be constructed. Based on the scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely. .

The nature of any associated demolition works (Schedule 7(1)(c))

As noted, it is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned and grubbed out, as will the existing tarmacadam surface. These will be decommissioned, removed from site and disposed of at an appropriately licenced facility. As noted, the existing building is served by a septic tank located in the southwestern corner of the site.This will also be decommissioned, removed from site and disposed of at an appropriately licenced facility. Refer to Section 3.3.1 under '*A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))*'.

The use of natural resources, in particular land, soil, water and biodiversity (Schedule 7(1)(d))

Refer to Section 3.3.3 under '*The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).*

The production of waste (Schedule 7(1)(e))

There is an existing disused motor dealership building onsite surrounded by hardstanding. Occupational Health and Safety Consultancy (OHSS) (2019) conducted an asbestos survey of the site to HSG264 requirements for the purposes of identifying asbestos containing materials (ACMs) in the premises(s) prior to the refurbishment of the area. OHSS (2019) stated that chrysotile asbestos was found in 2no. locations the '*spark guard from electrical panel and the yellow floor tile from floor slab'.* OHSS (2019) concluded the following: '*remove ACM's prior to refurbishment or demolition'.*

There is also potential for contamination issues (associated with the historical use of the site) to be encountered arising from the likely onsite storage / use of contaminants in the past. Should any ground contamination be encountered during the construction phase of the development the Employer and Employers Representative should be immediately notified and consulted with. Appropriate measures must be put in place, including appropriate transport and disposal of such waste materials to a suitably licenced facility in accordance with all relevant waste legislation. As noted, the existing building is served by a septic tank located in the southwestern corner of the site. This will also be decommissioned, removed from site and disposed of at an appropriately licenced facility.

The demolition contractor shall review the asbestos survey report and allow for the specialist removal of asbestos. Any asbestos material should be removed by a suitably experienced specialist asbestos removal contractor prior to commencement of any demolition or construction works commencing. Asbestos waste should be securely double bagged and removed from site immediately. Asbestos waste will be hazardous and should be transported and disposed of by a specialist waste disposal contractor (i.e. Rilta Environmental Ltd.). Written confirmation must be obtained to ensure that all structures scheduled for demolition have been certified to be clear of asbestos material before demolition works occur. No demolition works will be permitted to commence until written confirmation has been obtained that all structures scheduled for demolition have been certified to be clear of asbestos material.

Excavation works during the Construction Phase and Demolition Phase should be monitored and in the event that contaminated materials are encountered these will need to be segregated from all uncontaminated soils, temporarily stored (any stockpiles should be lined and covered by heavy duty 1000-gauge plastic), sampled and analysed for relevant parameters (Waste Acceptance Criteria suite e.g. Rilta Disposal Suite). Any contaminated soils must be characterised as per the requirements of the relevant Waste Acceptance Criteria (WAC) under the relevant European Communities Council Decision (EC) (92003/33/EC), and classified in accordance with the requirements of the EPA as set out in the following documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2018). Any contaminated soils must be transported by appropriately permitted hauliers and disposed of to an appropriate EPA licensed Waste Facility in accordance with all relevant waste management legislation.

Refer to Section 3.3.3 under '*The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).'*

Pollution and nuisances (Schedule 7(1)(f))

Refer to Section 3.3.2 under *'Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2))'.*

There will be no impacts on the Curragheen River due to the geographical location of the proposed project. The AA Screening report states that '*due to the nature of proposed works; i.e. no in-stream*

works along the Curraheen River; the distance between Westside and Great Island Channel SAC / Cork Harbour SPA, as well as the extent and duration of the proposed works; no negative impacts to European sites, notably Great Island Channel SAC / Cork Harbour SPA through surface waters or via disturbance are anticipated during construction or operation of this scheme' (Atkins, 2022).

The AA Screening Report concluded that '*based on the best available scientific information. It is concluded by the authors of this report that, on the basis of objective information, the proposed project, individually or in-combination with other plants and projects, will not have likely significant effects on European sites, including Great Island Channel SAC and / or Cork Harbour SPA, in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment'* (Atkins, 2022).

Any onsite waste should be removed firstly before the demolition phase occurs onsite. The construction phase of the development may generate waste such as metals, construction and demolition waste, plastic wrapping, wooden pallets, soil arisings or waste electrical and electronic equipment (WEEE). As outlined previously (under '*The production of waste (Schedule 7(1)(e*))), appropriate robust waste management procedures will be implemented by the Contractor to ensure that any minimal volumes of waste which will be generated during the construction phase do not pose a pollution / nuisance risk to the receiving environment. OHSS (2019) stated that chrysotile asbestos was found in 2no. locations the '*spark guard from electrical panel and the yellow floor tile from floor slab'.* Any asbestos material should be removed by a suitably experienced specialist asbestos removal contractor prior to commencement of any demolition or construction works commencing. Asbestos waste should be securely double bagged and removed from site immediately. Asbestos waste will be hazardous and should be transported and disposed of by a specialist waste disposal contractor (i.e. Rilta Environmental Ltd.). Written confirmation must be obtained to ensure that all structures scheduled for demolition have been certified to be clear of asbestos material before demolition works occur. No demolition works will be permitted to commence until written confirmation has been obtained that all structures scheduled for demolition have been certified to be clear of asbestos material.

Excavation works during the Construction Phase and Demolition Phase should be monitored and in the event that contaminated materials are encountered these will need to be segregated from all uncontaminated soils, temporarily stored (any stockpiles should be lined and covered by heavy duty 1000-gauge plastic), sampled and analysed for relevant parameters (Waste Acceptance Criteria suite e.g. Rilta Disposal Suite). Any contaminated soils must be characterised as per the requirements of the relevant Waste Acceptance Criteria (WAC) under the relevant European Communities Council Decision (EC) (92003/33/EC), and classified in accordance with the requirements of the EPA as set out in the following documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2018). Any contaminated soils must be transported by appropriately permitted hauliers and disposed of to an appropriate EPA licensed Waste Facility in accordance with all relevant waste management legislation.

Waste materials generated during the Operational Phase will primarily comprise household waste (including dry recyclables (paper, plastic etc.), glass, food and organic waste, domestic refuse)) and occasional maintenance waste (including general waste and green waste). It is assumed that the majority of waste produced during the Operational Phase will be non-hazardous. In the event that any hazardous materials are brought to site for maintenance purposes, the volumes of paints, varnishes, glues, adhesives etc. will be minor, and will be removed offsite and disposed of appropriately by the relevant maintenance contractor. Hazardous wastes (such as waste fuel, oil or chemicals) will therefore not be generated onsite during the Operational Phase. Operational waste of the proposed development will be appropriately characterised, managed and disposed of in accordance with all relevant waste management legislation.

The hard-standing material will be removed to accommodate the proposed development, all excavated materials will be removed to a licenced waste facility. The proposed residential development will be modular and utilise off-site construction methods. Hence the only concrete poured will be for the foundations of the proposed development and will be undertaken in a phased basis, combined with the edge retention around each section.

The nearest sensitive receptor (student accommodations) is located ca. 20m north and south from the proposed residential development Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in *'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes'* (NRA, 2011).

Construction will require the use of machinery such as excavators and road saws etc. and the presence of such machines may result in a temporary increase of noise. Noise barriers will be installed to minimise noise impact on sensitive receptors. The contractor will be required to avoid leaving machinery idling and required to change reverse indicators beepers. Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes'* (NRA, 2014).

There will be no additional pollution or nuisance issues from the operational stage of the development.

The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge (Schedule 7(1)(g))

Punch Consulting Engineers completed the Engineering Planning Report (2022) and stated that '*the proposed development is located within Flood Zone C. This zone defines areas with a low probability of flooding. For river flooding it is defined as less than 0.1% probability or between less than 1 in 1,000 years, also for coastal flooding less than 0.1% probability or less than 1 in 1,000 years.*

The risk of flooding associated with the current receiving environment is therefore low. The nature, along with the location of the proposed development, is unlikely to give rise to any potential flood risk.

There are 14no. Seveso (Control of Major Accident Hazards Regulations (COMAH)) establishments within 15km of the proposed development as shown in Table 3-2.

Table 3-2 - Seveso Establishments Within 15km of the proposed residential development

Facility	Tier	Location	Distance from Site
BASF Ireland Ltd	Upper	Little Island Industrial Estate, Little Island, Co. Cork	10.50 km
Calor Teoranta	Upper	Tivoli Docks, Co. Cork	8.70 km
Flogas Ireland Ltd	Upper	Tivoli Industrial Estate, Tivoli, Co. Cork	8.80 km
Grassland Agro	Upper	Carrigrohane Road, Cork	2 km
Portfolio Concentrate Solutions UL	Upper	Kilnagleary, Carrigaline, Co. Cork	12 km
Novartis Ringaskiddy Ltd	Upper	Ringaskiddy, Co. Cork	14.7km
Pfizer Ireland Pharmaceuticals	Upper	Ringaskiddy API Plant, Ringaskiddy, Co. Cork	14.1km
BOC Gases	Lower	Little Island Co. Cork	12.60 km
Chemical Bulk Storage Ltd	Lower	Unit 19,Tivoli Industrial Estate, Tivoli, Co. Cork	8.80 km
Goulding Chemicals Ltd.	Lower	Centre Park Road, Cork	6.50 km
Irish Oxygen Company Ltd	Lower	Waterfall Road, Co. Cork	1.90 km
Janssen Pharmaceutical Sciences UC	Lower	Little Island, Cork	12.60 km
Tervas Ltd	Lower	Knockburden, Ovens, Co. Cork	8.20 km
Upjohn Manufacturing Ireland ULC	Lower	Little Island Active Pharmaceutical Ingredients Plant, Little Island Co. Cork	11.30 km

Due to the distance of these Seveso sites from the proposed scheme, the proposed works are not located in a high-risk area with respect to major accidents/ disasters. Due to the nature, scale and location of the proposed project, there will be no impact on any of these Seveso sites.

The contractor will be required to design and implement traffic plans as required in accordance with the '*Guidance for the Control and Management of Traffic at Road Works'* (TII, 2010).

The risks to human health (for example, due to water contamination or air pollution (Schedule 7(1)(h))

Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011). Refer to section 3.3.2 *Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).*

Noise levels, during the construction phase, will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (NRA, 2014). Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). No significant impact on human health due to noise pollution is anticipated to occur during the operational phase of the project.

There are no reported public drinking water supplies within a 2km radius of the development (GSI, 2022). Due to the nature and scale of the proposed project it is not anticipated to have a significant impact on groundwater quality, resources or flow.

Given the location, nature and scale of the proposed project, the overall risk to human health is low.

3.3.6. Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed scheme (Schedule 7(2))

The existing and approved land use (Schedule 7(2)(a))

The site was developed for use as a sales showroom and garage in the 1990's and has been in use for this purpose since then. The boundaries of the site comprise concrete walls and fences.

The site is relatively flat and is bounded by the Model Farm Road to the north, Parchment Square apartments to the south, a filling station to the west and the Parchment Square access road to the east.

Under the Cork City Development Plan 2015-2022 and the non-statutory Bishopstown and Wilton Area Action Plan (adopted, October 2007), the location for this development is zoned as '*Business and Technology'* (2015, CCC), with the following objective clearly stated within the Cork City Development Plan (CCC, 2015):

> *'To provide for high technology related office based industry'*

The area to the surrounding the proposed project is identified as zoned land use for ''*Business and Technology'* to the west and east and to the *'Residential, Local Services and Institutional uses'* to the north, south and east of the proposed development. The location of the proposed development has been detailed previously in Section 3.3.1 under Schedule 7A (1)(a).

The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground (Schedule 7(2)(b))

Refer to Section 3.3.3 under *The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).* The proposed development is not likely to have a significant environmental effect with regard to the use of any natural resources.

The absorption capacity of the natural environment, paying particular attention to the following areas (Schedule 7(2)(c)):

(i) Wetlands, riparian areas, river mouths

No significant impacts on wetlands or riparian areas are anticipated.

(ii) Coastal zones and the marine environment.

The proposed development is located ca. 9.30km from the coast.

(iii) Mountain and forest areas.

There are no mountain or forested area within 2km of the proposed development.

(iv) Nature reserves and parks

The development is not located within any Nature Reserves and there is no Natural Reserves within 15 km of the proposed development.

(v) Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive

Refer to Section 3.3.3 under '*The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b))'* A Stage 1 Screening for Appropriate Assessment (AA) has also been prepared (Atkins, 2022). The Screening for AA concluded the following '*based on the best available scientific information. It is concluded by the authors of this report that, on the basis of objective information, the proposed project, individually or in-combination with other plants and projects, will not have likely significant effects on European sites, including Great Island Channel SAC and / or Cork Harbour SPA, in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment'* (Atkins, 2022).

It is considered that due to the nature and scale of the works there will be no significant impact on areas classified or protected under legislation from the proposed development.

(vi) Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.

Water Quality

Lee Valley Gravels groundwater body has '*good*' water quality status under the Water Framework Directive (WFD) and is *'at risk'* of failing to achieve the relevant WFD objectives by 2027 (EPA, 2022). Due to the nature and scale of the works the proposed project is not likely to significantly impact groundwater quality.

The Curragheen River is *'at risk'* of failing to achieve the relevant WFD objectives by 2027 (EPA, 2022). Lough Mahon and Cork Harbour have '*moderate'* water quality status under the WFD and are both *'at risk'* of failing to achieve the relevant WFD objectives by 2027 (EPA, 2022). Status relates to the condition of the water in the waterbody as defined by its chemical status and its ecological status, whichever is worse.

It is considered that due to the nature and scale of the project, the proposed drainage arrangements as outlined in Section 3.3.3 the proposed development will not have a significant impact on baseline surface water or groundwater quality.

Air Quality

Air quality in the area is reported as '*good*' (EPA, 2022). Dust may be generated during the construction phase which has the potential to impact on human health. However, management of dust will be in line with best practice such as that set out in *'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes'* (NRA, 2011). Due to the nature and scale of the project it is anticipated that there will be no significant impact on air quality.

Noise Quality

It is anticipated that during construction there may be an increase in noise volumes. Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes'* (NRA, 2014).

It is considered that due to the nature and scale of the works there will be no significant impact on water quality, baseline air and noise from the proposed development.

(vii) Densely populated areas

The proposed scheme is constructed within Cork city. Cork city has a population of 124,391 from the 2016 census (CSO, 2016). The development will be constructed on an existing site which is surrounded by existing residential estate and commercial buildings.

(viii) Landscapes and sites of historical, cultural or archaeological significance

Refer to 3.3.1 under '*A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b)).'*

It is considered that due to the nature and scale of the works there will be no significant impact on landscapes and sites of historical, cultural or archaeological significance from the proposed development.

3.3.7. Types and characteristics of potential impacts (Schedule 7(3))

The likely significant effects on the environment of the proposed development have been evaluated taking into account the following specific criteria.

The magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected) (Schedule 7(3)(a))

The spatial extent of potential impacts is limited to the localised footprint of the proposed scheme (refer to Figure 1-1). Based on the location, current site setting, and the nature of the proposed scheme, any potential impacts (during the construction and operational phases) are not likely to be significant in magnitude.

The nature of the impact (Schedule 7(3)(b))

There will be no significant impact on the receiving environment arising from the proposed residential development (during the demolition, construction or operational phases).

The transboundary nature of the impact (Schedule 7(3)(c))

There is no potential for transboundary impacts as a result of the proposed residential development (during the demolition, construction or operational phases).

The intensity and complexity of the impact (Schedule 7(3)(d))

There will be no significant impact on the receiving environment arising from the proposed residential development (during the demolition, construction or operational phases').

The probability of the impact (Schedule 7(3)(e))

The probability of such impacts on the receiving environment is low given the following considerations;

- The receiving environment is not considered to be at risk of significant impact due to the nature and scale of the proposed project; and,
- The Contractor will be obliged to implement standard best practice procedures prior to commencement of the proposed development including all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.

The expected onset, duration, frequency and reversibility of the impact (Schedule 7(3)(f))

The probability of impacts on the receiving environment is considered to be low, as previously outlined. Therefore, there shall be no requirement for the reversibility of the impacts caused by this development (during the demolition, construction or operational phases).

The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(3)(g))

As previously detailed no significant cumulative impacts associated with the project (during the demolition, construction or operational phases) have been identified, arising from other existing and/or approved projects. Refer to Section 3.4.1 under '*Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1)(b)).'*

The possibility of effectively reducing the impact (Schedule 7(3)(h))

Significant effects on the receiving environment are not anticipated as a result of the provision of the proposed development (during the demolition, construction or operational phases phases).

3.4. Potential for Significant Effects on the Receiving Environment

All relevant information as required under Schedule 7A has been provided on behalf of CCC and is presented within Section 3.2 of this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the

Planning & Development Regulations (2001-2022) (Schedule 7), as presented within Section 3.2 of this screening report.

Based on the information provided within Section 3.2 and 3.3 of this report, and summarised below, it is considered that due to the size, nature, and characteristics of the proposed development, no significant effects on the receiving environment are expected; hence a sub-threshold EIAR is not required.

3.5. Screening Conclusion

This EIA screening assessment has been carried out in accordance with the Planning and Development Regulations as amended 2001- 2022 (which give effect to the provisions of EU Directive 2014/52/EU). The report assessed the impact of the proposed development in conjunction with committed developments in the surrounding area.

Based on all available information, and taking account of the scale, nature and location of the proposed project, it is our opinion that the preparation of an EIAR is not a mandatory requirement (under Part 1 or Part 2 of Schedule 5). The project is deemed a sub-threshold development; hence the potential for significant environmental effects arising as a result of the proposed project has been evaluated, in accordance with the requirements of Schedule 7A and Schedule 7.

Key findings are summarised as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area;
- Limited noise, vibration and dust emissions may be generated during construction; however, this is anticipated to be minimal in effect and will cause no significant impact;
- Waste will be generated during construction and operational phases however this is not anticipated to have a significant effect.
- There will be no significant impact on the receiving biodiversity, surface water, groundwater or traffic environment.
- There will be no impact on recorded monuments or historic features.

In summary, no significant adverse impacts to the receiving environment will arise as a result of the proposed scheme.

Accordingly, we consider that the preparation of an EIAR is not required for the proposed residential development. However, the competent authority will ultimately determine whether an EIA is required or not.

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ATKINS

Member of the SNC-Lavalin Group

Cork City Social Housing

Westside, Bishopstown - Screening for Appropriate Assessment

Cork City Council

05/05/22

Notice

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Document history

Revision	Purpose description	Origin-ated	Checked	Reviewed	Author-ised	Date
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Client signoff

Client	Cork City Council
Project	Cork City Social Housing
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1. Introduction

Atkins Ireland have been commissioned by Cork City Council to prepare a Screening for Appropriate Assessment report for the proposed project at Westside on the Model Farm Road in Bishopstown, Cork City. Cork City Council aim to provide a social housing project at the Westside site. The latter shall be referred to as the 'proposed project' for the purposes of this report.

1.1. Project Context

The social housing project will be situated at the Westside site, located on Model Farm Road within the suburbs of Cork City in Bishopstown. The site of the proposed development is a brownfield site which was formerly owned by Blackwater Motors and is approximately 0.244 hectares in area. The site was developed for use as a sales showroom and garage in the 1990's and has been in use for this purpose since then. It is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned and grubbed out. The site is relatively flat and is bounded by the Model Farm Road to the north, Parchment Square apartments to the south, a service station to the west and the Parchment Square access road to the east. The area of the site including allowance for pipe laying (as set out below) is 0.7251ha.

All surface water run-off from hardstanding areas is designed to be collected by a gravity pipe network and will discharge to a new storm sewer which is required to run down Model Farm Road and turn north to run along the eastern boundary of the Melbourne Court estate before tying in to dedicated storm sewer network which serves Melbourne Court.

Following consultation with Irish Water, it is also proposed to connect to an existing foul water sewer located in Curraheen River Park to the northeast of the site (part of the Carrigrohane to Curraheen Walk and Cycleway). This will necessitate laying of a new section of sewer which will run eastwards on Model Farm Road and turn north to run along the eastern boundary of the Melbourne Court estate before tying in to the storm sewer network which runs through Curraheen River Park (see WES-PUNCH-XX-XX-DR-0100 and WES-PUNCH-XX-XX-DR-0101).

The northern side of the Model Farm Road includes a mix of residential properties, apartments and commercial units; while further residential developments (e.g. Rossbrook Housing estate) extend to the southwest, as well as business / industrial park to the northeast.

1.2. Project Description

The proposed development will consist of the construction of a 4-5 storey building containing 43 no. apartments (17 no. 1-bed and 26 no. 2-bed apartments), each with private balcony/terrace, as well as ground floor bin store and plant, and all associated site development works, services provision, landscaping/public realm works, 13 no. car parking spaces and 102 no. bicycle parking spaces located at ground level.

The proposed works are outlined in a series of architectural drawings prepared by O'Mahony Pike Architects and engineering drawings prepared by PUNCH Consulting Engineers and supplied as part of the planning documentation. These should be viewed when considering the Appropriate Assessment Screening report. Much of the following information which describes the proposed development has been extracted from the Engineering Planning Report prepared by PUNCH Consulting Engineers in March 2022. This report outlines the surface water drainage design, foul drainage design and watermain design for the proposed development. Roads design issues and Flood Risk are also addressed in the Engineering Planning Report.

The anticipated le length of construction in 5-6 months. The maximum depth of excavation is anticipated to be 1.8m within the site and 4.0m at manhole f1-11 where the foul sewer tie-in within Curraheen River Park is to take place (see also WES-PUNCH-XX-XX-DR-0100 and WES-PUNCH-XX-XX-DR-0101).

Access

Access to the site will be via a new entrance on Model Farm Road A 5.5m wide shared surface entrance will be provided to access parking to the rear of the site.

The proposed access has been designed in accordance with the Design Manual for Urban Roads and Streets (DMURS) and the Recommendations for Site Development Works. DMURS aims to aid the design of safer, more attractive, and vibrant streets which will generate and sustain communities and neighbourhoods. As well as cars and other vehicles this encompasses pedestrians, cyclists and those using public transport. Sight lines at the entrance to the site were designed in accordance with DMURS based on existing speed limits. The proposed turning area within the development has been designed in compliance with the Recommendations for Site Developments Works in Housing Areas document and a vehicle tracking analysis has been undertaken to verify the adequacy of this area for turning refuse vehicles.

Existing Stormwater Drainage

On-site inspections, utilities surveys and discussions with Cork City Council Engineers indicate that the site currently does not discharge to the public sewer network. It is assumed from site records that runoff from the site currently discharges to ground via a Petrol Interceptor/Silt Trap in the south western corner of the site, however this needs to be confirmed through CCTV Surveys. There are existing storm sewers on the Model Farm Road, however these are extremely shallow (<1m deep) and as such are unsuitable to tie in to as to do so would require a pumped solution for surface water runoff. Re-routing these sewers at lower levels is not a viable option as they traverse private property to the north of the Model Farm Road. Please refer to the accompanying PUNCH Drawing Pack for details of the existing storm sewer network in the vicinity.

Proposed Stormwater Drainage

The proposed surface water drainage system has been designed using Causeway Flow software in accordance with the Department of Environment and Local Government's guidance document "*Recommendations for Site Development Works for Housing Areas*", with guidance taken from the "*Greater Dublin Strategic Drainage Study*" (GDSDS) and the Cork City Development Plan.

A new surface water sewer network shall be provided for the proposed development which will be entirely separated from the foul water sewer network. All surface water run-off from hardstanding areas is designed to be collected by a gravity pipe network and will discharge to a new storm sewer which is required to run down Model Farm Road and turn north to run along the eastern boundary of the Melbourne Court estate before tying in to dedicated storm sewer network which serves Melbourne Court.

Notwithstanding that this is a brownfield site, in line with best practice the storm flows from the development will be restricted by means of a hydrobrake to the equivalent peak greenfield runoff rate, (QBAR), which has been calculated as 1.51 litres per second in accordance with the IH124 report published by the Institute of Hydrology (i.e. *F Estimation for Small Catchments*). As a consequence of this flow limitation, an attenuation tank will be required to store surface waters in extreme events. A system suitable for shallow cover depth installations will be required as outfall level constraints dictate that the attenuation tank cannot be installed at significant depth.

The proposed stormwater sewers have been designed using Causeway Flow software. The drainage model results confirm that all proposed finished floor levels are 500mm above drainage water levels for a 100-year return period, in accordance with the requirements of the GDSDS. Levels and drainage have been designed to ensure that no surface water generated by the development site outfalls to the Model Farm Road.

Petrol Interceptor

It is proposed that all surface water run-off from car parking areas and internal roads will outfall via a Class 1 Bypass Separator located within the access road to the site. This device will remove hydrocarbons and fine sediment particles from the site runoff and lower the risk of downstream contamination following an oil spillage on site.

Bypass separators fully treat all flows generated by rainfall rates of up to 6.5mm/hr. This covers over 99% of all rainfall events. Flows above this rate are allowed to bypass the separator. These separators are used when it is considered an acceptable risk not to provide full treatment for high flows, for example where the risk of a large spillage and heavy rainfall occurring at the same time is small.

Class 1 devices are designed to achieve a concentration of less than 5mg/l of oil under standard test conditions. Please refer to Appendix B (of the Engineering Report) for calculations regarding the proposed Petrol Interceptor Nominal size in accordance with EN 858-2. The Petrol Interceptor installed at the site will have a nominal size in excess of 8.75 l/sec as calculated.

Foul Effluent

Irish Water record drawings and on-site inspections indicate that there is no existing gravity foul sewer discharging from the site to the public drainage network. The existing building is served by a tank located in the southwestern corner of the site.

Irish Water and Cork City Council records and Utility Surveys have been reviewed and there is no evidence of an existing foul sewer network on the Model Farm Road outside the site. The closest public sewer is located within Melbourne Court, however the invert of the header manhole in this network is too high to facilitate a gravity connection from Westside, and the existing sewers are too undersized to cater for the anticipated flows from Westside. There are existing larger diameter sewers located further away from the site and the proposed foul sewer will discharge to these.

The proposed foul water sewers have been designed using Causeway Flow software in accordance with the DOE's "*Recommendations for Site Development Works for Housing Areas*". The foul loading has been calculated in accordance with "*Code of Practice for Wastewater Infrastructure*" published by Irish Water.

The initial pre connection enquiry made for the site by Cork City Council received a confirmation of feasibility letter (see Appendix C of the accompanying Engineering Planning Report; PUNCH Consulting Engineers, 2022) which requested that the proposed development discharge at Eden Hall to the west of the site, however construction of a gravity sewer running east to west along Model Farm Road would necessitate excavation depths of up to 6m due to the topography of the area. Subsequently a proposal was made to Irish Water to discharge to the existing foul sewer network to the northeast of the site, thereby reducing excavation depths and requiring most of the substantial construction to be undertaken in greenfield areas. This approach has been agreed in principle with Irish Water and a design submission has been made on this basis. It will be necessary to construct approximately 300m of additional foul sewer in parallel to the new storm sewer discussed above. The new length of foul sewer is illustrated in Figure 1.2 (copy of Figure 3.2 of the accompanying Engineering Planning Report; PUNCH Consulting Engineers, 2022) with the red line boundary shown in Figure 1.3 (it can also be seen in full in Dwg.'s WES-PUNCH-XX-XX-DR-0100 and WES-PUNCH-XX-XX-DR-0101).

The tie-in point to the existing sewer appears to be located within or just north of the footprint of the pubic walk; existing manholes are located on the northern side of the public pathway (see Plate 4.6). From existing Irish Water records the tie-in to the existing sewer is believed to be 17m back from the river. However, there is some uncertainty surrounding Irish Water records. In the event that ground surveys determine that connection at this point is closer to the river, then an alternate option exists to the west of the above point and further back from the river which will instead be adopted. To fully consider the ecological risk both options have been considered as part of this assessment.

A wayleave of approximately 6m total is typical for sewers so it is anticipated that 6m would be the maximum width of vegetation clearance required when constructing the foul sewer into and though Curraheen River Park. Information on access points / need for site compound is not available at this time and would require contractor input; however for the purpose of this assessment it is assumed that access could be from both the south (via the access road adjoining Melbourne Court) and from the north (along the public walk / cycleway) and that a site compound is not to be located within Curraheen River Park (see WES-PUNCH-XX-XX-DR-0100 and WES-PUNCH-XX-XX-DR-0101).

The calculations presented in the Engineering Planning Report (see Appendix C the accompanying Engineering Planning Report; PUNCH Consulting Engineers, 2022) confirm that the proposed sewer network will be sufficient to cater for foul flows generated by the proposed development.

Flooding

The site has been assessed in accordance with the "*The Planning System and Flood Risk Management*" Guidelines. As part of the sequential test, the OPW flood hazard maps have been consulted, as have the Catchment Flood Risk Assessment Maps produced by the OPW.

In all cases it was found that there is a low risk of flooding at the development (less than 1 in 1000 probability in any given year) and that the development is deemed appropriate within the proposed site location.

Demolition & Decommissioning

As noted, it is intended that the existing building will be demolished as part of the development and that all existing utilities within the site footprint will be decommissioned and grubbed out, as will the existing tarmacadam surface. These will be decommissioned, removed from site and disposed of at an appropriately licenced facility.

As noted, the existing building is served by a septic tank located in the southwestern corner of the site. This will also be decommissioned, removed from site and disposed of at an appropriately licenced facility.

Landscaping

Landscaping proposals for the scheme have been developed by Cathal O'Meara Landscape Architects. A Landscape Plan accompanies this application. This includes for areas of lawn, hedging (hornbeam; yew), climbers and ornamental trees. It also provides details of hard landscaping features.

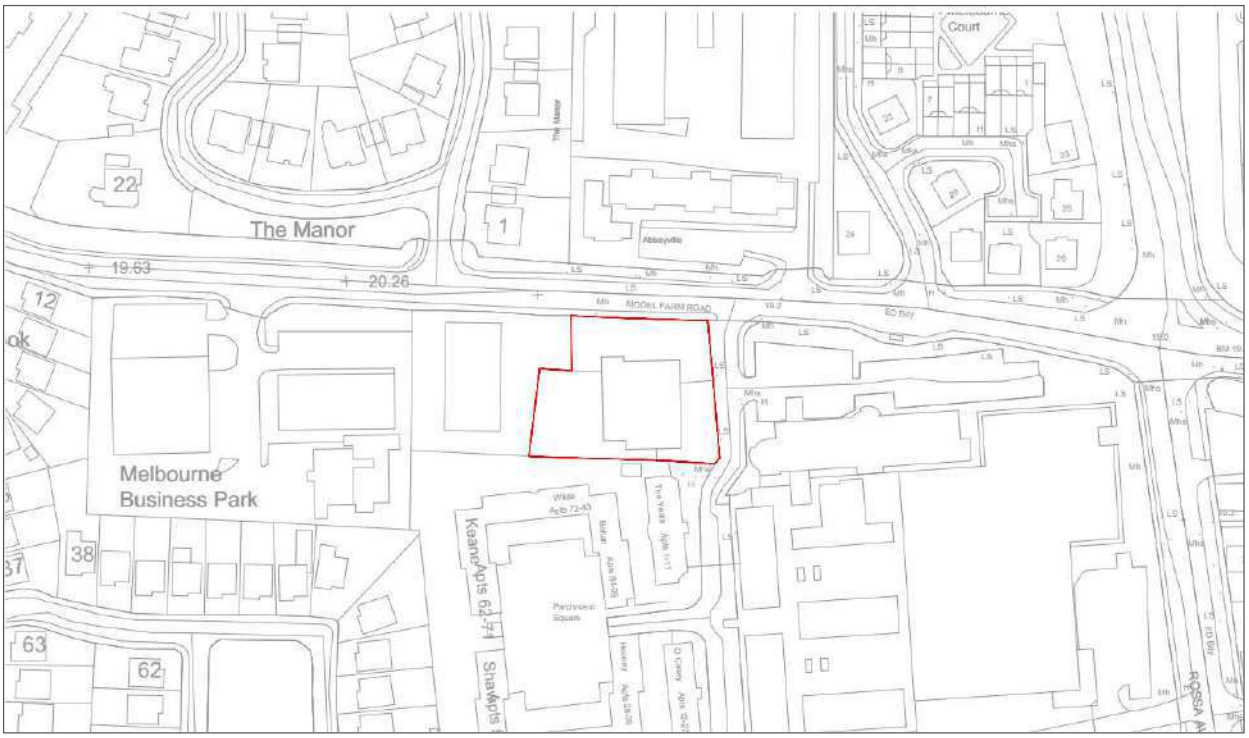

Figure 1.1 Site Boundary.

Figure 1.2 Foul sewer (copy of Figure 3.2 of PUNCH Consulting Engineers, 2022).

Figure 1.3 **Red line boundary of both the site and proposed works to lay foul sewer (see Dwg. 20001-OMP-00-SX-DR-A-1101).**

Figure 1.4 Existing Site Layout Plan.

Figure 1.5 Proposed Site Layout Plan at Ground floor level.

Figure 1.6 Proposed North and East Elevation.

Figure 1.7 Proposed South and West Elevation.

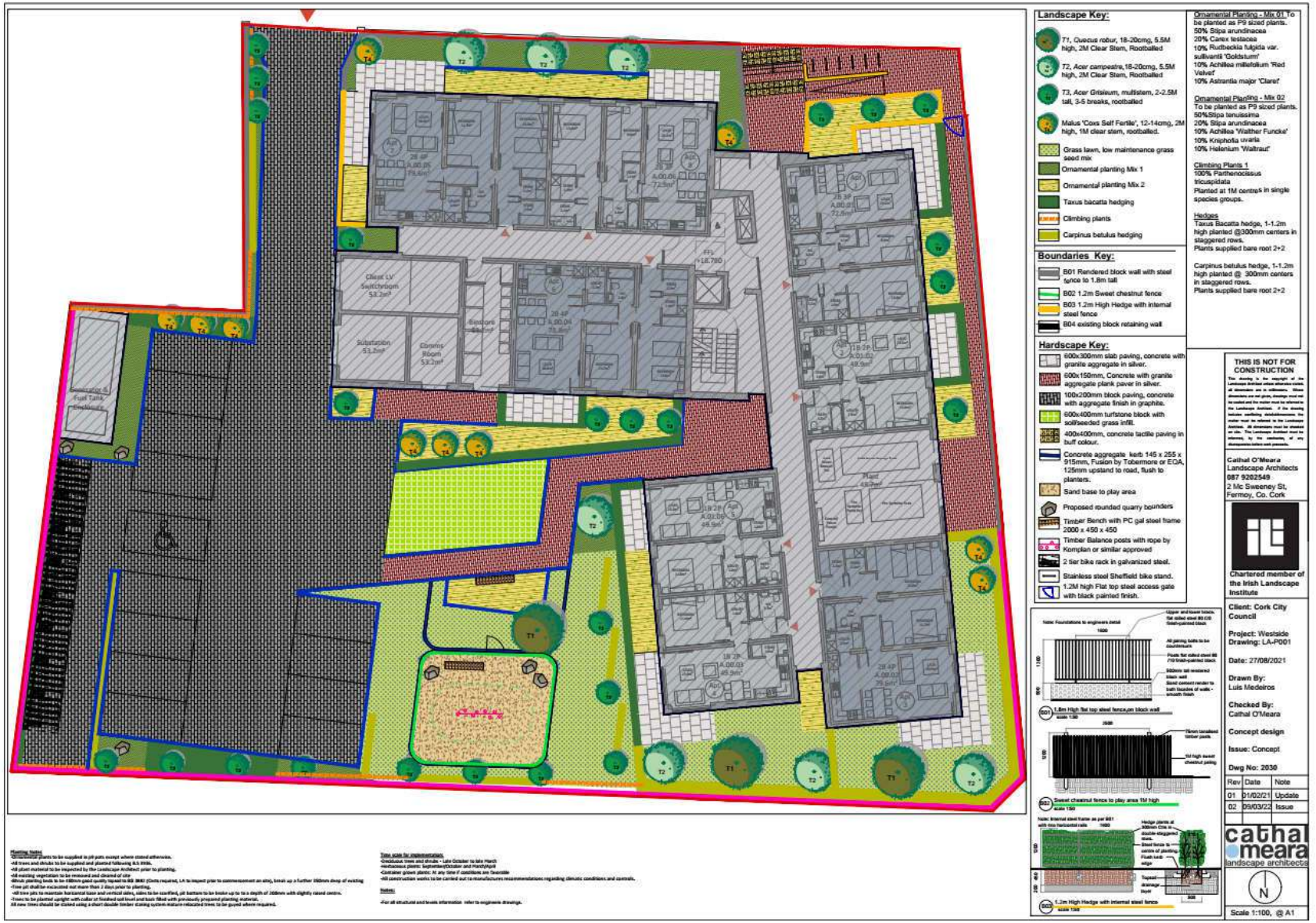

Figure 1.8 Landscape Plan.

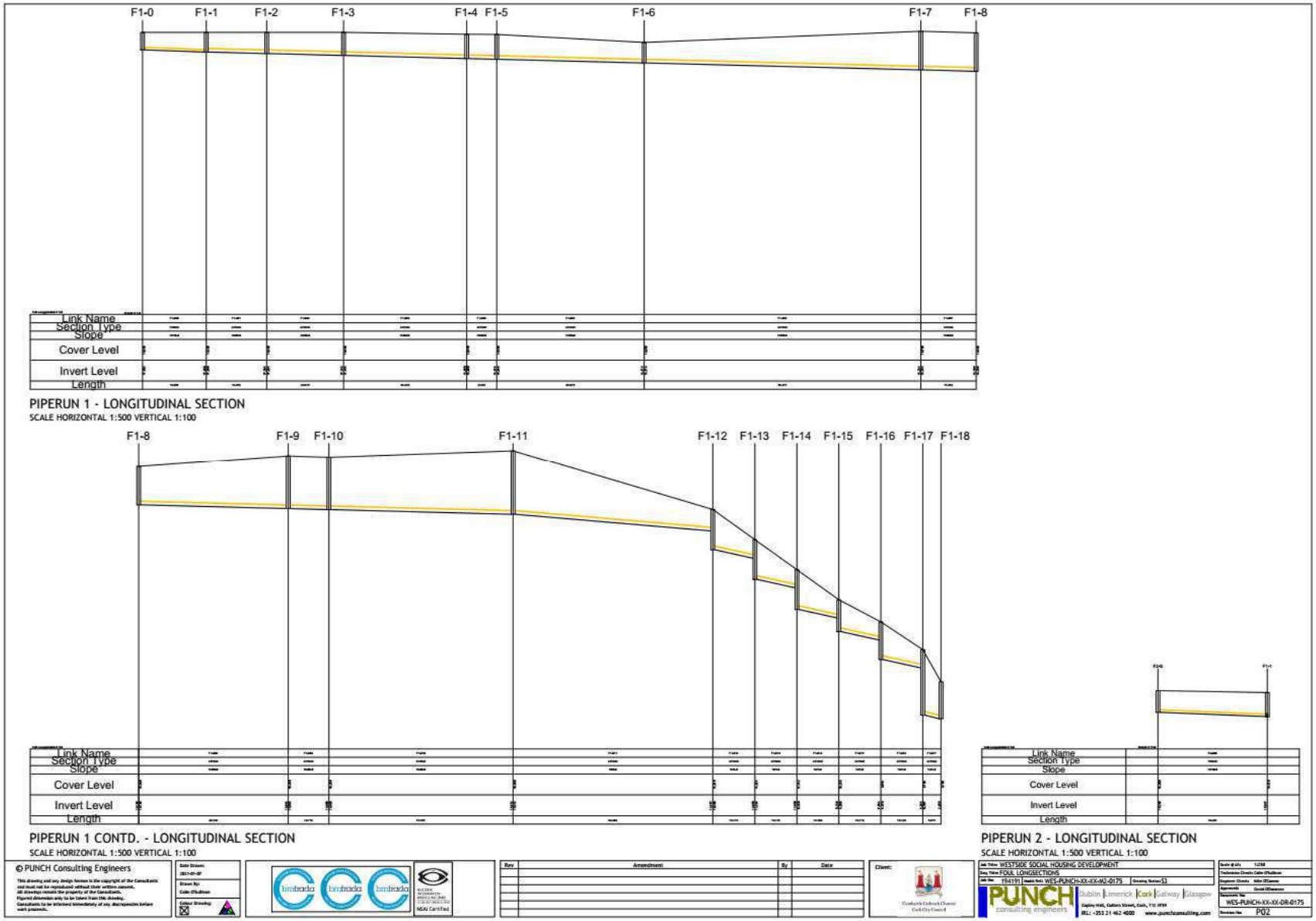

Figure 1.9 Longitudinal Section for laying of foul sewer from end of access road to Curraheen River Park (F1-11 to F1-18).

2. Scope of Study

The aim of this report is to provide supporting information to assist the competent authority to carry out an Appropriate Assessment determination with respect to the proposed project.

2.1. Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 – 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservations of an EU-wide network of sites known as European sites. European sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects that could potentially affect European sites. Article 6(3) establishes the requirement for Appropriate Assessment: -

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

Article 6 (4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan or project will adversely affect a European site. Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures need to be addressed in this case. Article 6(4) states: -

> *"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*
>
> *Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."*

2.2. Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission (EC, 2001; 2018), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009), National Parks and Wildlife Service in 2018[1] (NPWS 2018) and the Office of the Planning Regulator (2021). These guidance documents set out a staged approach to complete the AA process and outline the issues and tests at each stage. The stages outlined below are taken from the guidance document Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DEHLG, 2009).

[1] https://www.npws.ie/development-consultations

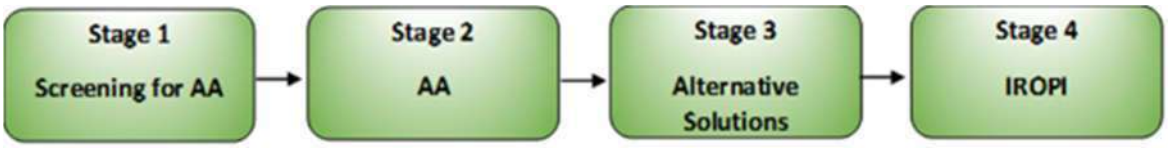

Figure 2.1 Appropriate Assessment Process (Source: DEHLG, 2009)

2.2.1. Screening for Appropriate Assessment

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3): -

i. Whether a plan or project is directly connected to or necessary for the management of the site; and
ii. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Appropriate Assessment.

2.2.2. Appropriate Assessment

Appropriate Assessment considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any necessary mitigation measures.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where sufficient mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to the consideration of alternative solutions.

2.2.3. Alternative Solutions

This examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a European site. The process must return to AA as alternatives will require assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, it is necessary to examine whether there are imperative reasons of overriding interest (IROPI).

2.2.4. IROPI

This examines whether there are imperative reasons of overriding public interest for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed, of which the Commission must be informed.

The AA process only progresses through the full process for certain plans and projects. For example, for a project not connected with the management of a European site and where no likely significant effects on a European site in view of its conservation objectives are identified, the process stops at Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty (EC, 2001; 2018).

3. Methods

3.1. Legislation & Guidance Documents

This report was prepared with reference and due consideration to the following documents and due regard for relevant case law, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (Habitats Directive);
- Statutory Instrument No. 477/2011 — European Communities (Birds and Natural Habitats) Regulations 2011;
- National Parks and Wildlife Service - Development Consultations[2] (NPWS, 2018)
- European Commission (2018). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC;
- European Commission (2021). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
- Department of the Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities; and,
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01; and,
- Case C-323/17 People Over Wind & anor V. Coillte and other relevant court rulings and case law.

3.2. Desk Study

A desk study was carried out to collate information available on European sites in the vicinity of the proposed project. These areas were viewed using Google Earth, Google maps[3] and Bing maps[4] (last accessed on (03/05/22).

The National Parks and Wildlife Service (NPWS) online databases were reviewed concerning European sites and their features of interest in the vicinity of the proposed project. The Environmental Protection Agency (EPA) mapping[5] system was used to identify any hydrological connection between the proposed project and European sites, this information was supported by site walkover surveys.

Locations and boundaries of all European sites within the potential zone of influence of the proposed project were identified and reviewed using the NPWS online map viewer. Boundary shapefiles were also downloaded from this site to facilitate the preparation of project graphics.

Desktop information on relevant European sites was reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the NPWS online map viewer, the standard European Data Form for the SAC/SPA which details conditions and threats of the sites, and published information and unpublished reports on the relevant European sites.

Relevant planning information for the surrounding area was reviewed using the planning enquiry systems of Cork City Council. Search criteria were implemented to determine whether such projects or plans would be

[2] https://www.npws.ie/development-consultations
[3] https://www.google.ie/maps
[4] http://www.bing.com/maps/
[5] https://gis.epa.ie/EPAMaps/

relevant to this study and this information was used to determine potential cumulative impacts from other plans / projects with the proposed project.

3.3. Site Visit

The site was visited on 27th April 2021 by an Atkins ecologist. It was also viewed again form site boundaries on 10th March 2022 to ensure the site remained unchanged. While on site, semi-natural habitats present were recorded following *Best Practice Guidance for Habitat Survey and Mapping* (Smith *et al*., 2011); *A Guide to Habitats in Ireland* (Fossitt, 2000); and *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* (NRA, 2009). Curraheen River Park was visited on the 18th April 2022.

Potential sensitive ecological receptors present within the survey area were recorded, including the presence of protected species and habitats or habitats that would support protected species, in addition to noting connectivity to European sites. The presence of non-native invasive species was also recorded.

As detailed in Section 5.1, the zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018). The survey area included the lands within the red line boundary.

3.4. Statement of Authority

The Screening for Appropriate Assessment report was prepared by Emma Nickelsen and Paul O'Donoghue. Peer review was undertaken by Colin Wilson.

Emma Nickelsen has a BSc (Hons) in Environmental Biology and an MSc in Marine Biology. Emma has worked in ecological and environmental consultancy since 2017, working on a wide range of projects including bridge works, road construction, local amenity development and renewable energy. A focus of Emma's work to date has been on conducting Appropriate Assessment screenings, ecological appraisals and supporting the preparation of Natura Impact Statements and Ecological Impact Statements.

Paul O'Donoghue has a BSc (Zoology), MSc (Behavioural Ecology) and a PhD in avian ecology and genetics. His is a chartered member of the Society for the Environment (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Paul has over 20 years' experience in ecology; including extensive experience in the preparation of Habitat Directive Assessments / Natura Impact Statements (i.e. Appropriate Assessment under Article 6(3) of the EU Habitats Directive).

Colin Wilson (Atkins Dublin) has a BSc (Hons) in Environmental Science. He has over 14 years working in the fields of ecology and environmental management. He is a Senior Ecologist with experience in ecological surveying, environmental assessment, on-site ecological supervision and mitigation. He has experience on multiple road projects regarding all elements of surface and groundwater management, monitoring, sampling and associated reporting. Colin also has a broad range of experience in invasive species management, biosecurity and control. Colin has prepared AA screening reports, Natura Impact Statements and has also been involved in the development of Environmental Operating Plans and Construction Environmental Management Plans for a number of national infrastructure projects.

4. Existing Environment

4.1. Desktop review

The proposed project is situated in the suburbs of Cork city, located on Model Farm Road in Bishopstown. Lands immediately adjacent to and bordering the proposed project include residential housing estates, student accommodation, a petrol station and business offices and units.

The Curraheen River, which is located 450m to the west of the site where the Model Farm road crosses the river at Carrigrohane Bridge, is a tributary of the River Lee. Downstream of Carrigrohane Bridge the river turns to flow in an easterly direction towards Cork City. It is joined by the Glasheen River close to Victoria Cross. The river enters the South Channel of the River Lee just downstream of Victoria Cross (2.7km downstream of the crossing with the Model Farm Road). After flowing through the City, the River Lee discharges to Cork Harbour.

The Curraheen River has not been assigned an ecological status under the Water Framework Directive (WFD) and has not been sampled by the EPA to determine its Q-value. The river has, however, been determined as being "*at risk*" of not attaining 'Good' status under the WFD.

The proposed development is underlain by a regionally important gravel aquifer (GSI 2022). Groundwater vulnerability beneath the development has been classified as predominately 'high' and there is a small portion of the development which is underline by 'extreme' groundwater vulnerability (GSI 2021). There is no evidence of any karst features being present within the general vicinity of the proposed development. The closest karst landform is a spring located ca. 2.1km south west (GSI, 2022).

4.2. Site Visit

The proposed site comprises artificial surfaces (BL3). The site was previously used as a car sales showroom with car parking around the perimeter. The building is now derelict, and the site is being used for car parking. The boundaries of the site comprise concrete walls and fences. The eastern boundary which adjoins the council offices comprises a metal fence with ornamental bushes planted on the opposite site. There is very little vegetation present on site. No invasive plant species listed on the 3rd Schedule of the Natural Habitats Regulations S.I (477/2011) were recorded on site. However, butterfly bush (*Buddleia davidii*) was recorded along the southern and eastern boundaries (within the site), along with bramble (*Rubus fructicosus*).

The site is predominantly open with no habitats present which could support protected species. Apart from one corner with butterfly bush and bramble, there are no trees or bushes to support nesting passerine birds. The site does not offer supporting habitat to foraging or roosting waterbirds. There was no evidence of animal activity on site and the nature of site (i.e. predominantly artificial surfaces) does not provide suitable resting or breeding places for animals.

There was litter recorded on site a pile of steel rebar being stored in one area.

Plate 4.1 Tarmac surface within the site, with derelict car sales showroom.

Plate 4.2 View of site along road frontage.

Plate 4.3 Eastern boundary with ornamental bushes, butterfly bush and bramble emerging.

As noted it will be necessary to run a foul sewer along Model Farm Road, north along the access road on the eastern side of Melbourne Court and through Curraheen River Park. This area was visited on the 18th April 2022.

At the end of the road adjacent to Melbourne Court, the road turns eastwards to enter the industrial park. It is bordered by amenity grassland and a stone wall / palisade fence. North of the fence is an area of grassland and gorse scrub (WS1), with a treeline (WL2) along the bottom of the hill (Plate 4.4). Adjoining the path is an area of grassland which is known to seasonally flood (Plate 4.4).

The public path and adjoining woodland is shown in Plate 4.5. The public path is higher than the grassland to the south; grassland on the northern side starts at the same height before dropping down to a strip of grassland and banks of nettles along the river measuring 10-15m in width. There does not appear to be any drainage connection under the road to the Curraheen River. Woodland alongside the path is dominated by willow and shows signs of periodic flooding / inundation during winter months and drying out during the summer months (see Plate 4.5). This is most likely an example of willow dominated *Wet pedunculate oak-ash woodland* (WN4). While such woodland can correspond to the priority habitat, '*alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-padion, Alnion incanae, Salicion albae) (91E0)', the current example along the pathway would not appear to (EU, 2013; *Interpretation Manual of European Habitats*). Manhole covers visible on the ground which indicate where a connection would be made are located on the northern edge of the public footpath (Plate 4.6). Excavation depth at this point would be 4m.

Plate 4.4 **View to northeast from public path – looking towards houses in Melbourne Court.**

Plate 4.5 **Woodland alongside the public path, including areas to the north showing signs of flooding / inundation.**

Plate 4.6 Manhole cover on northern side of pathway.

5. Appropriate Assessment Screening

5.1. Connectivity to European Sites

The 'zone of influence' (ZoI) for a project is the area over which ecological features may be subject to significant effects 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. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018).

A distance of 15km is recommended in the case of plans, as a potential zone of influence and this distance is derived from UK guidance (Scott Wilson *et al*., 2006). However, for projects the distance could be much less, and in some cases less than 100m. National Parks and Wildlife Service (DoEHLG, 2009) and Office of the Planning Regulator (OPR, 2021) guidance advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.

Thus, given the nature, scale and extent of the proposed project, the potential zone of influence will consider European sites with regard to the location of a European site, the QIs of the site and their potential mobility outside that European site, the Cause-Pathway-Effect model and potential environment effects of the proposed project. In the case of the Westside site this includes consideration of potential overlap with European sites and the potential for hydrological connectivity with European sites.

There are two European designated sites within the potential zone of influence of the proposed project; Great Island Channel SAC (001058) and Cork Harbour SPA (004030).

Great Island Channel SAC is situated in the inner area of Cork Harbour, north of Great Island and on the eastern side of Cork Harbour. Great Island Channel SAC is located ca. 13.4km straight-line distance to the east of the proposed project. There is no direct connection with Great Island Channel SAC. It must be assumed that surface water drainage from the environs of the site ultimately reaches the Curraheen River, which flows to the west / north; either by direct outfall or via infiltration to groundwater.

The SAC is located 14.7km downstream of Carrigrohane Bridge, where the Model Farm Road (R608) crossed the Curraheen River. The SAC is designated for intertidal mudflats and sandflats and Atlantic salt meadows (Table 5.1).

Cork Harbour SPA is comprised of a number of discrete elements distributed throughout the harbour. The nearest elements are Douglas Estuary, the western side of Lough Mahon and the shoreline at Dunkettle. Cork Harbour SPA at Douglas Estuary is located ca 6.8km straight-line distance to the east of the proposed project. There is no direct overlap with the SPA. The closest hydrological connection to the SPA is via the Curraheen River which is located 450m to the west of the site where the Model Farm Road crosses the river (Carrigrohane Bridge). The SPA is located 10km downstream of this river crossing (i.e. close to Blackrock Castle and the outfall of the Glashaboy River at Dunkettle Shore). There is no suitable habitat within the proposed site which would support the qualifying interests of the SPA.

Table 5-1 SACs within ZoI of the proposed project.

Site Name	Site Code	Approximate distance	Features of Interest	Within ZoI
Great Island Channel SAC	001058	ca. 13.4km (14.7km along watercourses)	• Mudflats and sandflats not covered by seawater at low tide [1140] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]	Yes There is no overlap or direct connectivity from the proposed project to the SAC. The SAC is situated within the inner area of Cork Harbour and thus, while remote from the site there is hydrological connectivity between the proposed project and the River Lee, Cork Harbour and hence the SAC via surface water drainage reaching the Curraheen River.

Table 5-2 SPAs within ZoI of the proposed project.

Site Name	Site Code	Approximate distance	Features of Interest	Within ZoI
Cork Harbour SPA	004030	ca. 6.8km (10km along watercourses)	• Little Grebe (*Tachybaptus ruficollis*) [A004] • Great Crested Grebe (*Podiceps cristatus*) [A005] • Cormorant (*Phalacrocorax carbo*) [A017] • Grey Heron (*Ardea cinerea*) [A028] • Shelduck (*Tadorna tadorna*) [A048] • Wigeon (*Anas penelope*) [A050] • Teal (*Anas crecca*) [A052] • Pintail (*Anas acuta*) [A054] • Shoveler (*Anas clypeata*) [A056] • Red-breasted Merganser (*Mergus serrator*) [A069] • Oystercatcher (*Haematopus ostralegus*) [A130] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Lapwing (*Vanellus vanellus*) [A142] • Dunlin (*Calidris alpina*) [A149] • Black-tailed Godwit (*Limosa limosa*) [A156] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Redshank (*Tringa totanus*) [A162]	Yes There is no overlap or direct connectivity from the proposed project to the SAC. The SAC is situated within the inner area of Cork Harbour and thus, while remote from the site there is hydrological connectivity between the proposed project and the River Lee, Cork Harbour and hence the SPA via surface water drainage reaching the Curraheen River.

Site Name	Site Code	Approximate distance	Features of Interest	Within ZoI
			• Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Lesser Black-backed Gull (*Larus fuscus*) [A183] • Common Tern (*Sterna hirundo*) [A193] • Wetland and Waterbirds [A999]	

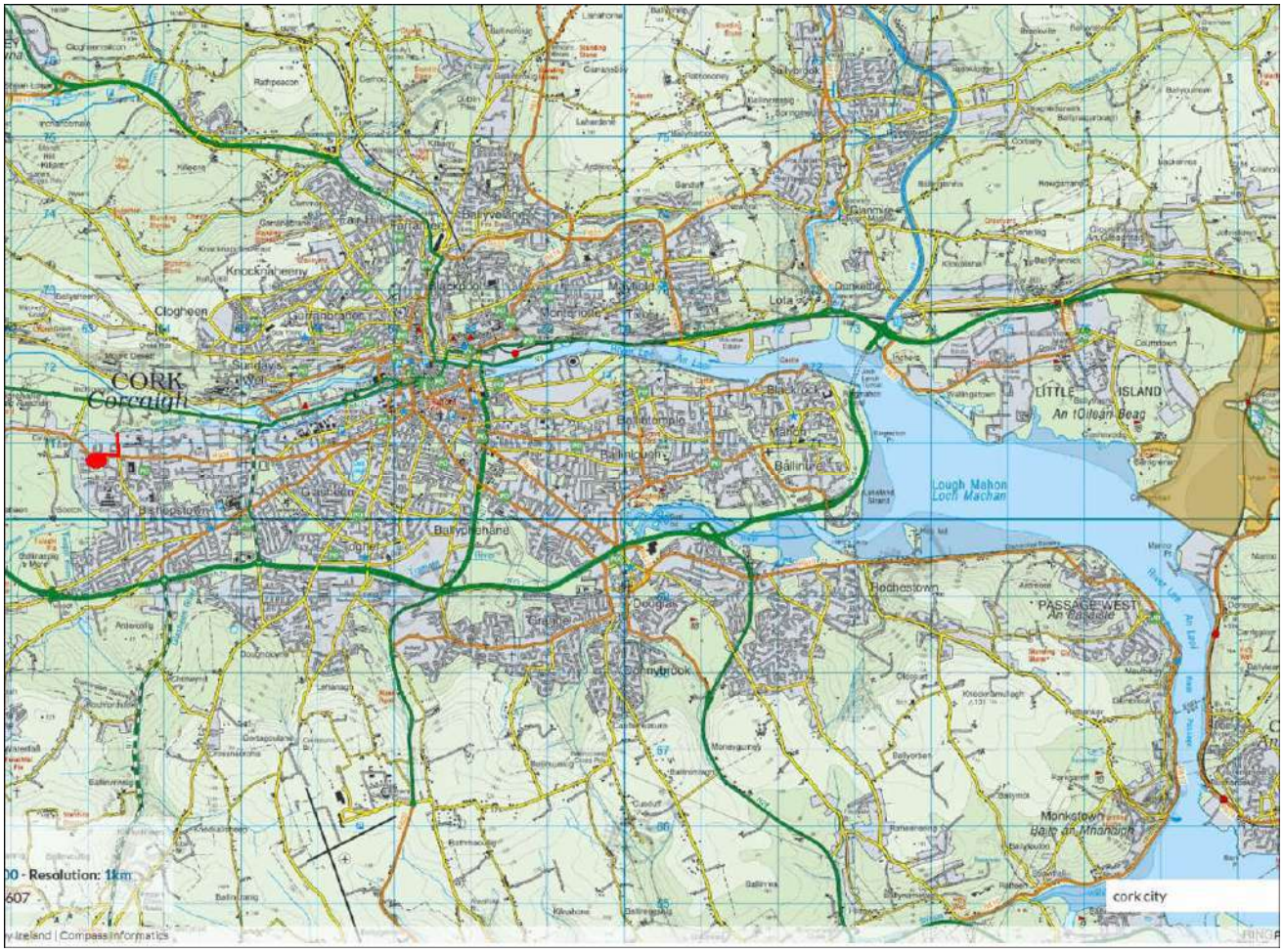

Figure 5.1 Site location (red) and Great Island Channel SAC (brown).

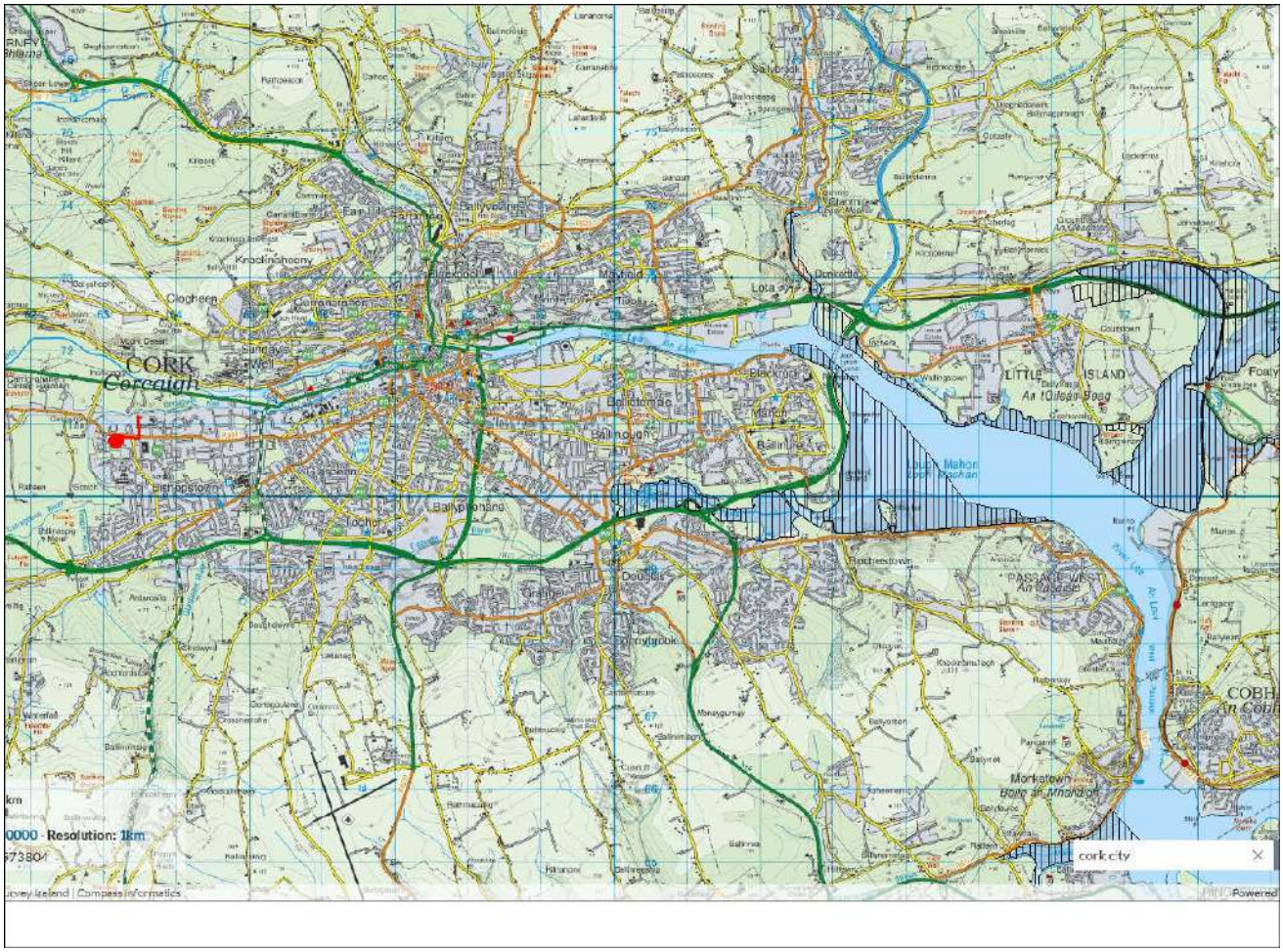

Figure 5.2 Site location (red) and Cork Harbour SPA (hatched).

5.2. Great Island Channel SAC

5.2.1. Description of Great Island Channel SAC

Great Island Channel SAC is described as follows in the NPWS site synopsis (NPWS, 2013a; a full copy of the site synopsis is included in Appendix A): -

> *"The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Geologically, Cork Harbour consists of two large areas of open water in a limestone basin, separated from each other and the open sea by ridges of Old Red Sandstone. Within this system, Great Island Channel forms the eastern stretch of the river basin and, compared to the rest of Cork Harbour, is relatively undisturbed. Within the site is the estuary of the Owenacurra and Dungourney Rivers. These rivers, which flow through Midleton, provide the main source of freshwater to the North Channel.*
>
> *The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. These muds support a range of macro-invertebrates, notably* Macoma balthica*,* Scrobicularia plana*,* Hydrobia ulvae*,* Nepthys hombergi*,* Nereis diversicolor *and* Corophium volutator*. Green algal species occur on the flats, especially* Ulva lactuca *and* Enteromorpha *spp. Cordgrass (*Spartina *spp.) has colonised the intertidal flats in places, especially at Rossleague and Belvelly. The saltmarshes are scattered through the site and are all of the estuarine type on mud substrate. Species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Greater Sea-spurrey (*Spergularia media*), Lax-flowered Sea-lavender (*Limonium humile*), Sea Arrowgrass (*Triglochin maritimum*), Sea Mayweed (*Matricaria maritima*) and Red Fescue (*Festuca rubra*)."*

5.2.2. Conservation Objectives

The Habitats Directive defines when the conservation status of the listed habitats and species is considered as favourable. The definitions it uses for this are specific to the Directive. In summary, they require that the range and areas of the listed habitats, and the range and population of the listed species, should be at least maintained at their status at the time of designation. Site-specific conservation objectives aim to define favourable conservation conditions for a particular habitat or species at that site.

Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows.

Favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and

- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for Great Island Channel SAC, to maintain or restore the favourable conservation condition for each of the qualifying interests of the site, were published by NPWS (2014a) and are as follows: -

- To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Great Island Channel SAC;

- To restore the favourable conservation condition of Atlantic salt meadows in Great Island Channel SAC.

When considering the potential for impacts on annexed habitats in Great Island Channel SAC consideration must be given to each of the Attributes for *Habitat 1140* (Table 5.3) and *1330* (Table 5.4) as set out in the Conservation Objective Supporting documentation (NPWS, 2014a).

Table 5.3 Attributes of 1140 Mudflats and sandflats not covered by seawater at low tide (from NPWS, 2014a).

1140	Mudflats and sandflats not covered by seawater at low tide		
To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Great Island Channel SAC, which is defined by the following list of attributes and targets:			
Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See Map 3 of NPWS, 2014a.	Habitat area was estimated using as 723ha using OSi data
Community distribution	Hectares	Conserve the following community type in a natural condition: Mixed sediment to sandy mud with polychaetes and oligochaetes community complex. See Map 4 of NPWS, 2014a.	Based on intertidal and subtidal surveys undertaken in 2006 (Aquafact, 2007) and 2011 (EcoServe, 2012; MERC, 2012). See marine supporting document for further information.

Table 5.4 Attributes of 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (from NPWS, 2014a).

1330	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)		
To restore the favourable conservation condition of Atlantic salt meadows (*GlaucoPuccinellietalia maritimae*) in Great Island Channel SAC, which is defined by the following list of attributes and targets:			
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-sites mapped: Bawnard - 0.29ha; Carrigatohil - 1.01ha. See Map 5 of NPWS, 2014a.	Based on data from Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009). Two sub-sites that supported Atlantic salt meadow (ASM) were mapped (1.30ha) and additional areas of potential saltmarsh (17.60ha) were identified from an examination of aerial photographs, giving a total estimated area of 18.90ha. Saltmarsh habitat has also been recorded at two other sub-sites within the SAC (Curtis and Sheehy Skeffington, 1998). NB further unsurveyed areas maybe present within the SAC. See coastal habitats supporting document for further details.
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes. See Map 5 of NPWS, 2014a.	Based on data from McCorry and Ryle (2009). Within the sites surveyed by the SMP, estuary type saltmarsh over a mud substrate is most common and ASM is the dominant saltmarsh habitat. NB further unsurveyed areas maybe present within the SAC. See coastal habitats supporting document for further details.
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions	Based on data from McCorry and Ryle (2009). At Bawnard there is a seawall that was constructed in the 18th-19th centuries. At Carrigatohil the northern and eastern shorelines have been significantly modified by road construction. Part of the saltmarsh has also been infilled. See coastal habitats supporting document for further details
Physical structure: creeks and pans	Occurrence	Maintain/restore creek and pan structure, subject to natural processes, including erosion and succession	Based on data from McCorry and Ryle (2009). The ASM at Carrigatohil is poorly developed, though some of the larger sections contain salt pans. The smaller sections, however, tend to be quite uniform in topography. The saltmarsh topography at Bawnard is poorly developed with few typical saltmarsh features. See coastal habitats supporting document for further details
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime	Based on data from McCorry and Ryle (2009). At Bawnard, the entire bay empties at low tide to expose soft intertidal mudflats. See coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from McCorry and Ryle (2009). Zonations to Salicornia flats and intertidal mudflats occurs at Carrigatohil. At Bawnard, there is succession from saltmarsh to brackish saltmarsh and wet grassland as well as zonation to intertidal mudflats at the lower saltmarsh boundary. See coastal habitats supporting document for further details

1330	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)		
To restore the favourable conservation condition of Atlantic salt meadows (*GlaucoPuccinellietalia maritimae*) in Great Island Channel SAC, which is defined by the following list of attributes and targets:			
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward	Based on data from McCorry and Ryle (2009). At Carrigatohil, the sward height is quite tall due to lack of grazing. At Bawnard only part of the site is grazed. See coastal habitats supporting document for further details
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% area outside creeks vegetated	Based on data from McCorry and Ryle (2009). Some poaching was noted in places at Bawnard. See coastal habitats supporting document for further details
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain range of subcommunities with typical species listed in SMP (McCorry and Ryle, 2009)	See coastal habitats supporting document for further details
Vegetation structure: negative indicator species - *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% where it is known to occur	Based on data from McCorry and Ryle (2009). Spartina occurs at both sub-sites in this SAC. See coastal habitats supporting document for further details

5.2.3. Potential Threats

The site synopsis for the Great Island Channel SAC describes the land use and threats to the SAC as follows; *'While the main land use within the site is aquaculture (oyster farming), the greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments.'*

The threats, pressures and activities with impacts on the SAC (NPWS, 2019) are itemised in Table 5.5.

Table 5.5 Threats, pressures and activities with impacts on the SAC.

Rank	Threats and pressures (code)	Threats and pressure (type)	Inside/outside/both (i/o/b)
M	A08	Fertilisation	o
H	F01	Marine and freshwater aquaculture	i
H	J02.01.02	Suppression of natural fires	i
H	D01.02	Roads and motorways	i
H	E01	Urbanised areas and human habitation	o
M	I01	Invasive non-native species	i
M	A04	Grazing	i
M	K02.03	Eutrophication (natural)	i

5.3. Brief Description of Cork Harbour SPA

Cork Harbour SPA is described as follows in the NPWS site synopsis[6] (NPWS, 2015): -

> *"Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poulnabibe inlets.*
>
> *Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably* Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor *and* Corophium volutator. *Green algae species occur on the flats, especially* Ulva *spp. Cordgrass (*Spartina *spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.*
>
> *Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary."*

5.3.1. Conservation Objectives of Cork Harbour SPA

The Conservation Objectives for Cork Harbour SPA are to maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (NPWS, 2014) (last accessed 03/05/22).

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objective for non-breeding birds Special Conservation Interests of Cork Harbour SPA (NPWS, 2014) are summarised in Table 5.6.

[6] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004030.pdf

Table 5.6 Conservation Objectives of Cork Harbour SPA.

Objective 1: To maintain the favourable conservation condition of the waterbird Special Conservation Interest species listed for Cork Harbour SPA, which is defined by the following list of attributes and targets:			
Parameter	**Attribute**	**Measure**	**Target**
Population	Population Trend	Percentage change as per population trend assessment using waterbird count data collected through the Irish Wetland Bird Survey and other surveys	The long term population trend should be stable or increasing
Range	Distribution	Range, timing or intensity of use of areas used by waterbirds, as determined by regular low tide and other waterbird surveys	There should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest other than that occurring from natural patterns of variation.
Area	Wetland habitat	Area (Ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,587 Ha, other than that occurring from natural patterns of variation.

5.3.2. Potential Threats

The threats, pressures and activities[7] with impact on Cork Harbour SPA are itemised in Table 5.7.

Table 5.7 Threats, pressures and activities with impacts on the SPA.

Rank	Threats and pressures (code)	Threats and pressures (type)	Inside/outside/both (i/o/b)
M	F02.03	Leisure fishing	i
H	E02	Industrial or commercial areas	o
M	G01.01	Nautical sports	i
M	D03.02	Shipping lanes	i
M	G01.02	Walking, horse riding and non-motorised vehicles	i
H	D01.02	Roads, motorways	o
H	E01	Urbanised areas, human habitation	o
L	E01.03	Dispersed habitation	o
H	F01	Marine and Freshwater Aquaculture	i
M	G01.06	Skiing, off-piste	i
M	A08	Fertilisation	o
H	D03.01	Port areas	o

[7] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004030.pdf

5.4. Likelihood of Significant Effects on European sites

The available information on European sites was reviewed to establish whether or not the proposed project is likely to have a significant effect on the conservation objectives of the designated sites. The likelihood of impacts on the qualifying interests of the European sites identified in this report is based on information collated from the desk study, site visit, site plans, design information and reports and other available existing information.

The likelihood of impacts occurring are established in light of the type and scale of the proposed works, the location of the proposed works with respect to European sites and the features of interest and conservation objectives of the European sites.

This screening report is prepared following the Cause – Pathway – Effect model. The potential impacts are summarised into the following categories for screening purposes.

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect impacts refer to those which can arise through remote connectivity, for example by means of a watercourse, via groundwater, via air (e.g. dust) or via other emissions from a project site (e.g. noise and light). Indirect and secondary impacts do not have a straight-line route between cause and effect. It is potentially more challenging to ensure that all the possible indirect impacts of the project – in combination with other plans and projects - have been established. These can arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact. Disturbance to fauna can arise directly through the loss of habitat (e.g. displacement of roosting bats) or indirectly through noise, vibration and increased activity associated with construction and operation.

5.4.1. Identification of Potential Impacts

5.4.1.1. Indirect impacts via surface water run-off during construction and operational phase

Construction

The proposed works area is not located within a European site (neither SAC nor SPA).

There will be no direct impacts to the Curraheen River due to the geographical location of the proposed development site on the Model Farm Road relative to the watercourse; no works are proposed in or close to any watercourse on the brownfield site on the Model Farm Road.

The only connection to European sites is via a remote hydrological linkage through the surface water drainage system from the site / Model Farm Road to the Curraheen River – River Lee and on to Cork Harbour. The development site on the Model Farm Road is ca. 14.7km along watercourses to Great Island Channel SAC and ca. 10km along watercourses to Cork Harbour SPA. There is, accordingly, a hydrological link between the proposed development site and European sites in Cork Harbour; though it should be noted that this link is remote and via a very large body of water. There is no watercourse or open drain within the site boundary on Model Farm Road.

During the construction phase of the project, and as set out above, a construction compound will be established within the site boundary (see Figure 1.2); this will not be located in proximity to any drains or surface water features through which sediment or other pollutants such as hydrocarbons could be discharged to the Curraheen River and ultimately to Cork Harbour.

As noted, it must be assumed that the surface water drainage network along the Model Farm Road includes connections ultimately to the Curraheen River. The full extent of such connections from the local network is not known, but it is assumed that such connections could potentially exist within the works area and its environs.

Where any such connection are identified during works, these will be isolated from the works area for the duration of any tasks that might result in silt laden waters entering such drains.

However, given the distance between the site and any outfall points to the Curraheen River (potentially up to 14.7km along a watercourse), it is not likely that any pollution event at the Model Farm Road site could result in significant impacts to Great Island Channel SAC. When considering *1140 - Mudflats and sandflats not covered by seawater at low tide* – the proposed development at Westside would not affect either of the listed Attributes for this habitat – i.e. either *Habitat Area* or *Distribution* of this habitat within the SAC; nor would they affect any of the Attributes listed for *1330 Atlantic salt meadows* (see Table 5.3 and 5.4). Even in a worst case scenario where silt laden waters might enter the Curraheen River during construction on the Model Farm Road site, the dilution offered by the distance along the Curraheen River – River Lee to Cork Harbour (and volume of water) is such that negative impacts to Great Island Channel SAC are not anticipated; nor to the Wetlands for which Cork Harbour SPA is also designated.

The proposed scheme will include the demolition of the existing building onsite. Excavation of the proposed site will also involve the removal of the existing hardstanding material. Excavated material will be temporarily stored at suitable locations only and then removed from site to appropriately licenced waste facilities. No negative impacts to European sites are anticipated from these activities. (removal of the septic tanks is addressed below).

The proposed residential development will be modular and utilise off-site construction methods, either 2D panelised (typically Light Gauge Steel) or 3D volumetric (Light Gauge Steel or concrete). No negative impacts to European sites are anticipated from these construction activities.

As noted it is also necessary to lay a new section of foul sewer. Much of this will be within the urban fabric of Model Farm Road and the access road along the eastern side of the Melbourne Court (i.e. from F1-04 to F1-11 on Figure 1.9). North of this point the sewer will be laid through a greenfield site (i.e. F1-11 to F1-18) to a tie-in point with an existing Irish Water sewer close to the Curraheen River Park public walk. The existing public pathway is raised above ground level to the north and prevents any surface water flows from reaching the Curraheen River – this appears to also be the reason why lands north of the public path flood during the winter months, but are dry during the summer (see Plate 4.4). It is not permitted to allow surface waters from works on the hillside to be discharged to the river. Construction of the sewer north to the public pathway should not therefore not affect water quality within the Curraheen River, nor in turn the water quality in any downstream European sites.

As noted a site compound will be located at the site on Model Farm Road. It is not known at present, however, whether a secondary temporary compound may be required to facilitate laying of the new section of sewer; in order to be precautionary, it is assumed that one might be required. It is also assumed that vehicular access along the public path from the Model Farm Road might be required. If such a compound is needed it must be located north of the public path and not on the river bank. It is not permitted to park vehicles or to store any materials between the public pathway and the river. Furthermore, felling of any woodland alongside the path is also discouraged. There is a natural break in the woodland close to the existing manholes which would allow vehicular access to grassland north of the path (see Plate 4.4) and to the proposed tie-in point.

As noted, the tie-in point to the existing sewer appears to be located within or just north of the footprint of the pubic walk; existing manholes are located on the northern side of the public pathway (see Plate 4.6). From existing Irish Water records the tie-in to the existing sewer is believed to be 17m back from the river. The intervening area is vegetated with rank grassland and banks of nettles. Any surface waters arising from the works at the pathway would be preferentially directed to the south of the path and away from the river; however, any limited flow in a northerly direction would flow through ca. 17m of rank vegetation which would provide natural filtration prior to any waters reaching the river.

However, there is some uncertainty surrounding Irish Water records. In the event that ground surveys determine that proposed tie-in location at this point is closer to the river, then an alternate option exists to the west of the above point and further back from the river – in such circumstance this will instead be adopted. As this is further back from the river than the option considered above, this option would further reduce any risk to surface water quality. As above, even in a worst case scenario where silt laden waters might enter the Curraheen River during construction near the public path, the dilution offered by the distance along the Curraheen River – River Lee to Cork Harbour (and volume of water) is such that negative impacts to qualifying interests of Great Island Channel SAC are not anticipated; nor to the Wetlands for which Cork Harbour SPA is also designated.

Cork Harbour SPA is designated for several wintering waterbirds. As noted, there is no overlap with the SPA. While several species for which the SPA has been designated do feed in fields outside of the SPA (e.g. Curlew, Oystercatcher, and Black-tailed Godwit) the proposed works area at Model Farm Road does not support suitable habitat for these species. The proposed works are sufficiently remote from the SPA that waterbirds within the SPA will not be impacted / disturbed by proposed works. The SPA is also designated for Wetland and Waterbirds [A999]; however, as noted above for Great Island Channel SAC no impact to wetland habitats within the SPA are anticipated.

As noted some of the grassland north of the Curraheen River through which a section of sewer must be laid floods during the winter months; wetland birds such as Moorhen (*Gallinula chloropus*) and Mallard (*Anas platyrhynchus*) occur when flooded. However, works to lay the sewer would need to be undertaken when this area is not flooded and thus does not support any wetland birds. Moorhen and Mallard also occur along the Curraheen River; along with Grey heron (*Ardea cinera*), Grey wagtail (*Motacilla cinerea*) and Kingfisher (*Alcedo atthis*). Grey heron is, however, widely distributed in small rivers around Cork City. Otherwise, the site does not support bird species for which Cork Harbour SPA has been designated.

Operation

During the operation phase, the surface water drainage will flow into an underground attenuation tank/cube. The attenuation tank will be used to manage rain water run-off from the proposed residential development surfaces. From the attenuation tank surface water will pass through a petrol interceptor and continue on through the proposed storm water network which will tie into the existing surface water sewer via new manhole s1-11 located ca. 200m north east of the proposed development. This device will remove hydrocarbons and fine sediment particles from the site runoff and lower the risk of downstream contamination from routine surface water runoff .

No impacts are therefore anticipated during the operational phase of the proposed project as this project will not significantly affect water quality or the hydrological regime of the Curraheen River. There will be a small scale reduction in existing quantity of hard standing areas through the proposed increase in areas of soft landscaping (e.g. lawns, flower beds etc.) which could result in a reduction in surface water emissions to the drainage network.

In summary, due to the nature of proposed works; i.e. no in-stream works along the Curraheen River; the distance between Westside and Great Island Channel SAC / Cork Harbour SPA, as well as the extent and duration of the proposed works; no negative impacts to European sites, notably Great Island Channel SAC / Cork Harbour SPA through surface waters or via disturbance are anticipated during construction or operation of this scheme.

5.4.1.2. Potential Indirect Impacts during construction and operational phase via groundwater (hydrogeological pathway)

The proposed development is underlain by a regionally important gravel aquifer (GSI, 2022). Groundwater vulnerability beneath the development has been classified as predominately ‘high’ and there is a small portion of the development which is underline by ‘extreme’ groundwater vulnerability (GSI, 2021). There is no evidence of any karst features being present within the general vicinity of the proposed development. The closest karst landform is a spring located ca. 2.1km south west (GSI, 2022).

The proposed project will mainly involve excavations to an anticipated maximum depth of 1.8m bgl on the Model Farm Road site and 4m along the sewer connection. GSI (2022) have reported a ‘*high’* groundwater vulnerability rating for the site, indicating that the groundwater beneath this portion of the proposed development may be vulnerable to contamination. Excavation works on site can interact with groundwater and have the potential to expose groundwater to contamination by concrete, hydrocarbons and other chemicals used in construction. Shallow groundwater will likely be encountered during construction work. In the event of a water strike dewatering may be required.

However, any localised / temporary alteration of ground water levels on-site is expected to be minor and of short duration, and will not have a significant impact on groundwater levels (i.e. locally or within the Lough Mahon Transitional Water Body), during site operation. Following completion of works, in landscaped areas of the site surface water will naturally infiltrate to soils and ultimately groundwater; all other waters will be intercepted by the surface water management system as discussed above. Risk to groundwater quality will be of limited duration; occurring during excavations and removal of the septic tank. As noted the site is a significant distance from the Lough Mahon Transitional Water Body in Cork Harbour.

It is therefore considered that the proposed development will not negatively impact on groundwater quality within Great Island Channel SAC; nor will it impact, directly or indirectly, any of the habitats or species listed as features of interest for Great Island Channel SAC.

5.4.1.3. Potential Indirect impact / damage through discharge of treated foul effluent.

As noted in Chapter 1.0, the calculations presented in the Engineering Planning Report (see Appendix C the accompanying Engineering Planning Report; PUNCH Consulting Engineers, 2022) confirm that the proposed sewer network will be sufficient to cater for foul flows generated by the proposed development.

Therefore, it is not anticipated that operational discharge of foul to the existing network would result in any adverse effects on the Great Island SAC or Cork Harbour SPA.

5.4.1.4. Proposed Indirect habitat/species loss/damage via spread of invasive species (if present at the study site).

The introduction and spread of invasive species can also result in negative impacts within a designated site. As noted, no species listed on the 3rd Schedule of the EC (Bird and Natural Habitats) Regulations, 2011 (S.I. 477/ 2011), have been recorded on site. No 3rd Schedule species were recorded within the site boundaries as illustrated on Figure 1.1.

No invasive species listed on the 3rd Schedule of the EC (Bird and Natural Habitats) Regulations, 2011 have been identified on site. As a result, no adverse effects shall occur on the Great Island Channel SAC as a result of the potential spread of invasive species. However, as is good practice strict biosecurity measures will be implemented on site.

5.5. In-Combination Impacts

In-combination impacts with the following plans and projects were considered during the preparation of this report. The search of Cork City Council's planning database was map-based.

The Cork City Development Plan 2015 - 2021[8] categorises the area of the proposed project as 'Business and Technology', with adjacent areas of 'Residential, Local Services and Institutional Uses'.

Cork City Council has started the preparation of a new Cork City Development Plan 2022-2028. This is a 2-year process, which evolves through various stages in line with Planning and Development Legislation. It can be viewed at: - https://www.corkcity.ie/en/proposed-cork-city-development-plan-2022-2028/.

A draft Natura Impact Report was prepared in support of the Appropriate Assessment of the draft Development Plan; this assessed the Plan and its potential to adversely affect the integrity of European sites. The findings of the NIS were integrated into the Plan, ensuring that potential impacts were avoided, reduced or offset. Thus, an AA determination was made by the Council that the Plan will not adversely affect the integrity of European sites due to the incorporation of mitigation measures into the Plan as a result of the AA process.

A search of Cork City Council Planning Applications has been undertaken for applications submitted within the last 5 years in the vicinity of the proposed development (last reviewed 08/03/2022). Some of the granted applications have already been completed and of those which are not completed, most are generally of small scale in nature (i.e. residential extension works, or property improvement works). Completed or granted applications of such small scale (such as residential improvements) have not been considered further in terms of potential for cumulative impacts.

10 no. projects are committed developments, which have not yet been built or are currently under construction. These developments have been further evaluated for the potential of cumulative impacts and are presented in Table 5.8. It is considered unlikely that the granted projects occurring within any sites surrounding the proposed Westside development will act in combination with the proposed project to give rise to significant cumulative impacts on the receiving environment.

[8] https://www.corkcity.ie/en/existing-cork-city-development-plan-2015-2021/. Please note the 2022-2028 is currently at public consultation phase.

There are also proposals currently being considered for repairs to Carrigrohane Bridge on the Curraheen River to the west of the proposed development site (currently at tender stage).

Given the nature, extent and scale of the proposed project, it is not anticipated that it will act in-combination with the plans or projects outlined above, or other plans or projects, to give rise to cumulative impacts on European sites, including Great Island Channel SAC and / or Cork Harbour SPA.

Table 5.8 Committed Development in the vicinity of the proposed residential development

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
2140127	18/06/2021	Boston Scientific Ireland Ltd.	Boston Scientific Ltd., Cork Business and Technology Park, Model Farm Road, Cork	Permission for the construction of a single storey utilities building with rooftop mechanical plant equipment on its campus. Site works include minor modification to footpaths and steps and site development works. The development is within the curtilage of a Protected Structure PS637 "Former Munster Institute"	This development is located 200m north east of the proposed site. Based on the scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
2039676	21/01/2021	Citistudent Ltd.	Former O Mahony Packaging Building, Melbourne Road, Bishopstown, Cork	Permission to complete and retain variations to Blocks A and B of permitted student apartment development (Planning Reg. No. 16/37034 and PL28.248665) at the former O'Mahony Packing Building, Melbourne Road, Bishopstown, by the omission of permitted student bedrooms and staff apartment at ground floor level and their replacement with; Student social/community room, reception and administration office, Gym, laundry, bin store, plant room, study room, storage areas, and 3 no. one-bedroom studio apartments; together with all associated modifications to first, second and third floor levels and alterations to elevations, including an increase of 700mm in the ground floor ceiling height. For clarity, the total number of student bedrooms in the development is to be reduced from 348 to 342.	This development is located 500m north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
2039272	21/12/2020	Dan O Brien	Riverside Farm, Model Farm Road	Permission for the construction of 48 no apartment units in 1 no 4-storey block and all associated ancillary development works including access parking foot paths drainage and landscaping at Riverside Farm Model Farm Road Cork. The proposed apartments will replace 32 no apartments previously permitted under Cork City Council ref 16/37118.	This development is located 350m north west of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
1938659	26/02/2020	Board of Management of Mount Mercy College	Mount Mercy College, Model Farm Road	Permission for the following: Erection of new single storey sports hall with changing rooms, ancillary facilities, associated car parking along with all associated site works	This development is located 1.00km north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
					on the receiving environment are unlikely.
1938616	15/06/2020	Headway Ireland CLG	Headway Ireland CLG, Carrigrohane Road, Cork	Permission for the demolition of a two-storey office building, a single storey boiler house and removal of a fuel storage tank and bunded area, for the refurbishment and remodelling of two existing single storey office buildings and for change of use for these buildings from office use to office and educational use and for the construction of 3 new single storey extensions to these buildings, together with modifications to the site entrance, new landscaping and associated site works, all at site at Carrigrohane Road, Cork.	This development is located 1.30km north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
2039272	21/12/2020	Dan O Brien	Riverside Farm, Model Farm Road, Cork	Permission for the construction of 48 no apartment units in 1 no 4 storey block and all associated ancillary development works including access parking foot paths drainage and landscaping at Riverside Farm Model Farm Road Cork. The proposed apartments will replace 32 no apartments previously permitted under Cork City Council ref 16/37118.	This development is located 400m north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
195417	24/07/2019	University College Cork	UCC sports grounds, Curraheen, Ballinaspig More, Bishopstown, Co. Cork	The development of a Dental Building located at UCC sports grounds. The development consists of the decommissioning of playing pitches within the site boundary and the construction of a dental hospital with ancillary education, research and innovation facilities, central sterile services department, roof top plant enclosure and support service areas, with 2 construction options. Option 1 is for the construction of a part 4-storey, part 5-storey dental hospital building, with ancillary education, research and innovation facilities, central sterile services department, roof top plant enclosure and support service areas. Option 2 is for the construction of a 5-storey dental hospital building, with ancillary education, research and innovation facilities, central sterile services department, roof top plant enclosure and support service areas. Both options will include associated access, carparking, parking kiosk, landscaping, ball fencing, signage and site development works.	This development is located 1.30km south west of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
				The development also consists of alterations to the site layout, access and parking arrangements for the Health Innovation Hub which was permitted under Planning Register Ref. Nos. 18/4921 and 15/6689.	
1938681	18/08/2020	Boston Scientific Ltd	Boston Scientific Ltd., Cork Business and, Technology Park , Model Farm Road Cork	Permission for a new administration building of approximately 3,220sqm on its campus at Business & Technology Park, Model Farm Road, Cork. The new building will include canteen, offices ,meeting rooms and support areas over 3 storeys. Mechanical plant equipment and PV panels will be located at roof level. The building will integrate with a number of existing structures on site. Site works include relocation of 35 no. existing car parking spaces and construction of additional 40 no. car parking spaces in a new dedicated car parking area, minor modification to internal road layout, new landscape areas and planting to boundaries. The development is within the curtilage of a Protected Structure PS637 'Former Munster Institute'.	This development is located 200m north east of the proposed site. Based on the scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
1938558	18/12/2019	Cork Institute of Technology	Cork Institute of Technology, Rossa Avenue, Bishopstown, Cork	Permission for the construction of a three storey Learning Resource Centre at Cork Institute of Technology, Rossa Avenue, Bishopstown, Co. Cork. The development will consist of (I) A three storey building with maximum gross floor area of 6,666sqm with screened plant set back at roof level, (II) Provision of 143 no. bicycle stands; (III) Provision of a main plaza and associated landscaping connecting the proposed building with the existing 1970s building (Block B & C); (IV) Provision of a bus stop and bus waiting area on the existing access road to north of the proposed Learning Resource Centre ; (V) Temporary construction signage ; and (VI) All associated site development works. Pedestrian and vehicular access will be from the existing entrances on Rossa Avenue.	This development is located 500m north east of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
1838057	13/11/2018	Boston Scientific Ltd.	Boston Scientific Ltd., Cork Business and ,	Permission for extension to existing warehouse to include new layout and storage areas, new plantroom and new fire stair, a new escape lobby	This development is located 200m north east of the proposed site. The Boston Scientific Ltd development

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
			Technology Park , Model Farm Road Cork	from cleanroom production areas and the construction of new service yard with new external lighting and modifications to underground services. Proposed renovations and modifications within the existing warehouse include a new lift and stair and a new office area with the insertion of new windows along the east elevation. The development is within the curtilage of a Protected Structure PS637 'Former Munster Institute'.	will likely be completed before the proposed residential development will be constructed. Based on the scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.

5.6. Consideration of Findings

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that, on the basis of objective information, the proposed project, individually or in-combination with other plants and projects, will not have likely significant effects on European sites, including Great Island Channel SAC and / or Cork Harbour SPA, in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment.

Should the scope or nature of the proposed project change, a new Screening for Appropriate Assessment report shall be required.

6. Appropriate Assessment Screening Matrix

Presented below is a summary screening matrix for the proposed project at Westside in Cork City. As discussed above, this summarises the assessment of potential impacts on the Great Island Channel SAC and Cork Harbour SPA, or any other European site.

1. Description of the project or plan	
Location	Westside, Model Farm Road, Bishopstown, Cork City
Distance from designated site	Great Island Channel SAC (001058) Cork Harbour SPA (004030)
Brief Description of the project or plan	The proposed development will consist of the construction of a 4-5 storey building containing 43 no. apartments (17 no. 1-bed and 26 no. 2-bed apartments), each with private balcony/terrace, as well as ground floor bin store and plant, and all associated site development works, services provision, landscaping/public realm works, 13 no. car parking spaces and 102 no. bicycle parking spaces located at ground level. See Chapter 1.0
Is the plan directly connected with or necessary to the site management for nature conservation?	No

2. Brief Description of the Natura 2000 site(s)	
Name	Great Island Channel SAC (001058) Cork Harbour SPA (004030)
Site designation status	SAC / SPA
Qualifying interests	Refer to Table 5.1 & 5.2
Unit size	Great island Channel SAC Area 1437.549976ha; of which 86.95% is marine Cork Harbour SPA Area: 2660.3 ha; of which marine: 90.792%

3. Assessment Criteria	
Other plans or projects which may have a cumulative impact	A planning search was conducted on the Cork City Council websites to determine if there were any projects which could interact with the proposed works. The search revealed planning applications / permissions for a range of small scale and / or historic developments, in the wider environs, but no current applications directly relevant to the proposed works areas (refer to Section 5.5). There are no plans and projects identified in the immediate environs of the proposed works areas that could provide a pathway for other plans and projects to act in-combination and to give rise to cumulative impacts on European sites, including Great Island Channel SAC and Cork Harbour SPA.
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites.	See Chapter 1.0 & Tables 5.1 – 5.2.

3. Assessment Criteria	
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of: - *Size and scale* - *Land-take* - *Distance from Natura 2000 site or key features of the site* - *Resource requirements* - *Emissions* - *Excavation requirements* - *Transportation requirements* - *Duration of construction, operation etc.* - *Others*	There are no likely changes to the European sites as a result of the proposed works. All works are at a significant distance from European sites. No land-take of the SAC or SPA is required for the proposed project. No habitats for which Great Island Channel SAC / Cork Harbour SPA have been designated are located within the works areas. There are no water abstraction requirements for the proposed project and there shall be no emissions during the operational phase of the project. No instream works are proposed. The potential for polluting material to enter the watercourse is low. It is estimated that works would be undertaken over a 5-6 month period.
Describe any likely changes to the site arising as a result of: - *Reduction of habitat area* - *Disturbance of key species* - *Habitat or species fragmentation* - *Reduction in species density* - *Changes in key indicators of conservation value* - *Climate change*	There are no likely changes to the sites as a result of the proposed works. There shall be no reduction of habitat area as a result of the proposed project. As noted no instream works or access to the stream are proposed. All works will be undertaken during daylight hours, with no overnight lighting on site. The proposed project does not pose a barrier to movement of any species. There shall be no habitat or species fragmentation or reduction in species density as a result of the works. Given the nature, scale and location of works negative impacts are not anticipated.
Describe any likely impacts on the Natura 2000 site as a whole in terms of: - *Interference with the key relationships that define the structure of the site* *Interference with key relationships that define the function of the site.*	There are no likely changes to the sites as a result of the proposed works with respect to the key relationships that define the structure or function of Great Island Channel SAC / Cork Harbour SPA.
Provide indicators of significance as a result of the identification of effects set out above in terms of: - *Loss* - *Fragmentation* - *Disruption* - *Disturbance* - *Change to key elements of the site*	There are no likely changes to the sites as a result of the proposed works. As noted no instream works or access to the stream are proposed. All works will be undertaken during daylight hours, with no overnight lighting on site. The proposed project does not pose a barrier to movement of any species. Given the nature, scale and location of works negative impacts are not anticipated
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.	There are no likely changes to the sites as a result of the proposed works.

Data collected to carry out the assessment			
Who carried out the assessment	*Sources of data*	*Level of assessment completed*	*Where can the full results of the assessments be accessed and viewed?*
Atkins Unit 2B 2200 Cork Airport Business Park, Cork	Desktop data derived from the NPWS – Natura 2000 form, site synopsis, SAC reports etc. National Biodiversity Date Centre online data. EPA Envision Mapping system; Google maps; Bing Maps etc. Cork City Council Planning Enquiry System	Screening for Appropriate Assessment	Atkins, Unit 2B 2200 Cork Airport Business Park, Cork

6.1. Finding of No Significant Effects

Finding of No Significant Effects	
Name and location of Natura site(s)	Great Island Channel SAC (001058) Cork Harbour SPA (004030)
Brief description of the project or plan	See Section 1.
Is the project or plan directly connected with or necessary to the site management for nature conservation?	No
Are there other projects or plans that together with the project or plan being assessed could affect the site?	See Section 5.5.o

Assessment of significance of effects	
Describe how the project (either alone or in combination with other plans or projects) is likely to affect the Natura 2000 site.	There are no likely changes to the European sites as a result of the proposed works. All works are at a significant distance from European sites. No land-take of the SAC or SPA is required for the proposed project. No habitats for which Great Island Channel SAC / Cork Harbour SPA have been designated are located within the works areas. There are no water abstraction requirements for the proposed project and there shall be no emissions during the operational phase of the project. No instream works are proposed. The potential for polluting material to enter the watercourse is low. It is estimated that works would be undertaken over a 5-6 month period
Explain why the effects are not considered significant	Refer to Chapter 5.0 and explanations presented above.
List the Agencies consulted	Formal consultation with NPWS via the Development Applications Unit has not been under taken at this time.
Response to Consultation	N/A

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Appendices

Appendix A. Site Synopses

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