ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT FOR A PROPOSED STRATEGIC HOUSING DEVELOPMENT ON A SITE AT FIRHOUSE, CO. DUBLIN

Report Prepared For

Bluemont Developments (Firhouse) Limited

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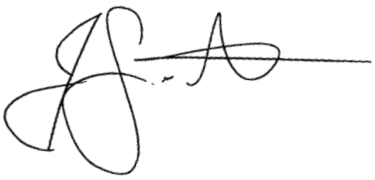
Signature		
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1.0 INTRODUCTION

On behalf of Bluemont Developments (Firhouse) Limited ('the Applicant'), AWN Consulting Limited ('AWN') has prepared the following Environmental Impact Assessment (EIA) Screening Report for this Strategic Housing Development (SHD) Application to An Bord Pleanála (ABP).

The proposal comprises the demolition of the existing and two-storey buildings (c. 1,326sq m) and the construction of 2 no. blocks (Blocks 01 and 02) ranging in height from three to five storeys, comprising 100 no. residential over commercial ground floor uses (355 sq m), all over a basement level.

The proposed development is located at No. 2 Firhouse Road and the former 'Morton's, The Firhouse Inn' Firhouse Road, Firhouse , Dublin 24, and is 0.46 hectares. The indicative site is outlined in red on Figure 1.1 (hereafter referred to as 'the site'). The development is described in further detail in Section 2 below.

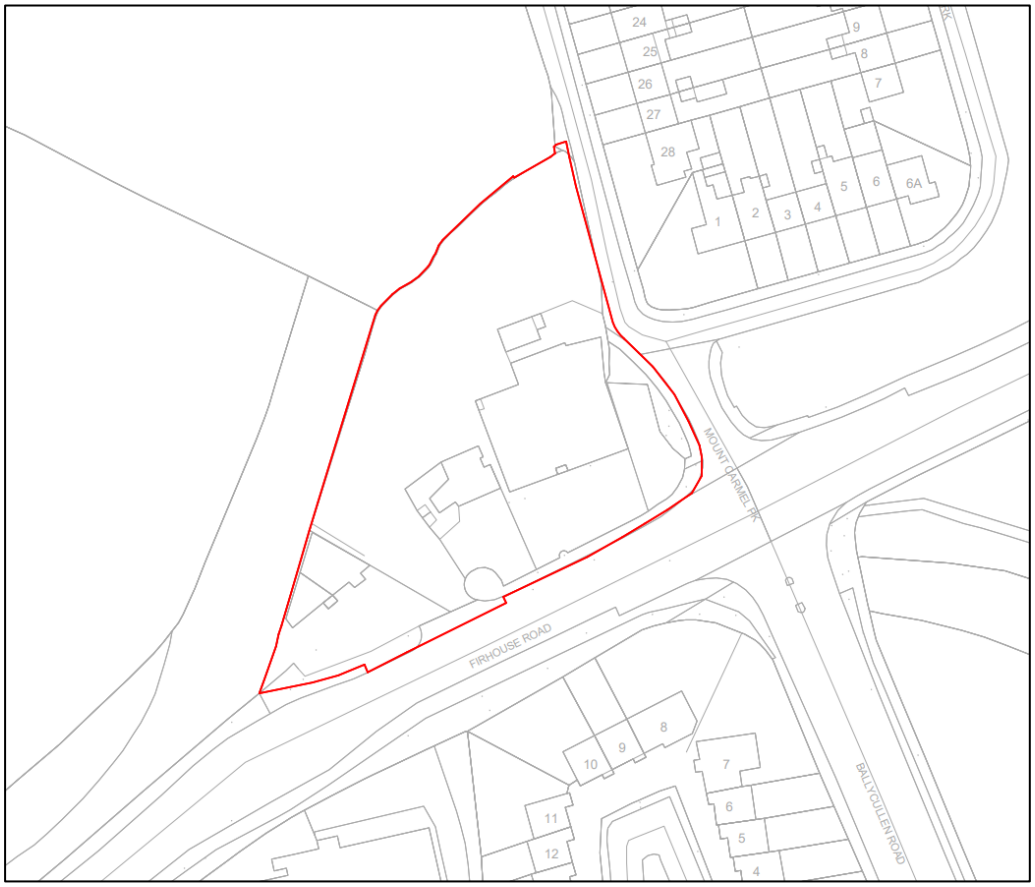

Figure 1.1 Proposed development Site Location (indicative in red) (Source: Extract from 20022-OMP-00-SX-DR-A-1000)

The purpose of this report is twofold, firstly to provide ABP with the information required under Schedule 7A to demonstrate there are no likely effects on the environment, having regard to the criteria set out in Schedule 7 of the Planning and Development Regulations 2001, as amended. This information will enable ABP to undertake a screening determination in accordance with Article 299B(2) of the Planning and Development Regulations 2001 (as amended) in respect of the need for an Environmental Impact Assessment Report ('EIAR') for the proposed development. The

second reason for this report is to document the studies undertaken by the Applicant, and the design team, which demonstrate there are no likely significant effects as a result of the proposed development and the application can be determined by ABP without an EIAR having been submitted.

There is a mandatory requirement for an EIAR to accompany a planning application for some types of development that meet or exceed the "thresholds" specified in Schedule 5 to the Planning and Development Regulations. In addition to the mandatory requirement, there is a case-by-case assessment necessary for sub-threshold developments as they may be likely to have significant effects on the environment. If a sub-threshold development is determined to be likely to have significant effect on the environment, then an EIAR will be required.

The proposed development and component parts have been considered, as documented in Section 2, against the thresholds for EIA as outlined in of the Planning and Development Regulations 2001 (as amended). The proposed development is a sub-threshold development and is not mandatory for EIA.

AWN, along with the project team, have undertaken an assessment of the effects on the environment from the proposed development and has concluded that there are no likely significant environmental effects which would warrant preparation of an EIAR. The assessment is documented in Section 3.0, 4.0 and 5.0 and covers each aspect of the environment in accordance with guidance including; Population and Human Health; Biodiversity; Land, Soils, Geology, Hydrogeology, and Hydrology; Air Quality and Climate; Noise and Vibration; Landscape and Visual Impact; Cultural Heritage, and Archaeology; Traffic and Transportation; Material Assets, and Waste.

1.1 EIA SCREENING LEGISLATION AND GUIDANCE

The legislation and guidance listed below has informed this report and the method to EIA Screening:

- Environmental Impact Assessment Screening, OPR Practice Note PN02 (Office of the Planning Regulator, 2021).
- European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018.
- Environmental Impact Assessment of Projects – Guidance on Screening. (2017). European Commission.
- Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report. (2017) European Commission.
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. (August 2018). Department of Housing, Planning and Local Government.
- Guidelines on the Information to be contained in Environmental Impact Assessment Reports. (2022). Environment Protection Agency.
- Advice Notes for preparing Environmental Impact Statements. (Draft, September 2015). Environment Protection Agency.
- Interpretation of definitions of project categories of Annex I and II of the EIA Directive. (2015) European Commission.
- European Union Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU.
- Planning and Development Act, 2000 (as amended).
- Planning and Development (Housing) and Residential Tenancies Act 2016

- Planning and Development Regulations 2001 (as amended).

The national requirements to provide an EIA with a planning application is outlined in *Planning and Development Act 2000 as amended* ('the Act') and *Planning and Development Regulations, 2001 as amended* ('the Regulations'). In addition to the national legislation there are requirements set out in the EIA Directive (Directive 2011/92/EU as amended by 2014/52/EU); for relevant purposes, the EIA Directive has been transposed into Irish planning legislation through amendments to the Act and the Regulations.

Articles 299B and 299C of the Regulations set out the requirements in relation screening for environmental impact assessment for applications for sub-threshold strategic housing development pursuant to the Planning and Development (Housing) and Residential Tenancies Act 2016 (as amended) (the "2016 Act").

Article 299B(2)(b) requires the Board to carry out a screening exercise for sub-threshold SHD applications to determine whether or not there is a real likelihood of significant effects on the environment arising from the proposed development. If the Board determines that there is no real likelihood of significant effects on the environment, the Board must determine that no EIA is required for the proposed development. If the Board determines that there is a real likelihood of significant effects on the environment, the Board may decide to refuse to deal with the application pursuant to Section 8(3)(a) of the 2016 Act.

Article 299C specifies the information to which the Board must have regard to in carrying out its screening. This includes: the criteria set out Schedule 7 of the Regulations; the information set out at Schedule 7A; any further relevant information on the characteristics of the development and its likely significant effects on the environment submitted by the applicant; any mitigation measures proposed by the applicant; the available results, where relevant, of preliminary verifications or assessments carried out under other relevant EU environmental legislation, including information submitted by the applicant on how the results of such assessments have been taken into account, and; the likely significant effects on certain sensitive ecological sites.

The screening process followed in this report is in accordance with the EIA Directive 2011/92/EU of the European Parliament and of the Council as amended by 2014/52/EU and as transposed by the Act and the Regulations and follows the format as per Section 3.2 of the EPA Guidelines (2022). The potential for significant effects of the proposed Project has been considered against the criteria under Schedule 7 of the *Planning and Development Regulations, 2001 as amended.*

In producing this report due regard has been paid to other EIA guidance including the European Commission's 2017 *EIA of Projects Guidance on Screening* as well as the published *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessm*ent and the OPR Practice Note PN02 Environmental Impact Assessment Screening.

As required by Article 299B(1)(b)(ii)(II)(C), the available results of other relevant assessments of the effects on the environment carried out pursuant to European Union legislation other than the Environmental Impact Assessment Directive have been considered within this EIA Screening Report. A standalone Article 299B(1)(b)(ii)(II)(C) Statement prepared by AWN has been included as part of this application.

Further, and in addition to the information included in this report relevant to Article 299C(1)(v), an AA Screening report has been prepared in relation to the likely significant effects on European sites.

Preliminary Screening for EIA

The Planning and Development Regulations 2001 (as amended) provide for preliminary screening for EIA. The Departmental Guidelines (August 2018) state as follows in relation to such a preliminary screening:

"For all sub-threshold developments listed in Schedule 5 Part 2, where no EIAR is submitted or EIA determination requested, a screening determination is required to be undertaken by the competent authority unless, on preliminary examination it can be concluded that there is no real likelihood of significant effects on the environment. This is initiated by the competent authority following the receipt of a planning application or appeal.

A preliminary examination is undertaken, based on professional expertise and experience, and having regard to the 'Source – Pathway – Target' model, where appropriate. The examination should have regard to the criteria set out in Schedule 7 to the 2001 Regulations."

While it is a matter for the ABP as the competent authority, it is our view that it is appropriate to carry out a screening of the development for EIA rather than a preliminary screening.

1.2 SCREENING METHODOLOGY

The screening process followed in this report is in accordance with the EIA Directive 2011/92/EU of the European Parliament and of the Council as amended by 2014/52/EU and follows the format as per Section 3.2 of the EPA Guidelines (2022).

The key steps to screen for an EIA is set out in Section 3.2 of the EPA Guidelines are as follows:

1. Is the development a type that that requires EIA?
2. Is it of a type that requires mandatory EIA?
3. Is it above the specified threshold?
4. Is it a type of project that could lead to effects? and/or
5. Is it a sensitive location? and/or
6. Could the effects be significant?

The information required to be submitted by the developer for the Planning Authority to make a determination on EIA Screening is set out in Schedule 7A of the Regulations of 2001 (see also Annex IIA of the EIA Directive).

However, it is important to note that Schedule 7A states '*The compilation of the information at paragraphs 1 to 3* [of Schedule 7A] *shall take into account, where relevant, the criteria set out in Schedule 7*.' Having regard to this for the purposes of compiling the relevant information on the likely effects of the proposed development and in order to address points 4 to 6 above, an evaluation of the characteristics of the project, the sensitivity of the location of the proposed development, and the potential for significant impacts has been made with regard to Schedule 7 of the Regulations.

Schedule 7 of the Regulations of 2001 sets out the criteria for the Planning Authority to determine whether a development would or would not be likely to have significant effects on the environment. The criteria is broadly set out under the three main headings:

1) *Characteristics of proposed development* (Report Section 3.0)
   - *a. the size and design of the whole of the proposed development,*
   - *b. 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,*
   - *c. the nature of any associated demolition works,*
   - *d. the use of natural resources, in particular land, soil, water and biodiversity,*
   - *e. the production of waste,*
   - *f. pollution and nuisances,*
   - *g. 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, and*
   - *h. the risks to human health (for example, due to water contamination or air pollution).*

2) *Location of proposed development* (Report Section 4.0)
   - *a. the existing and approved land use,*
   - *b. the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,*
   - *c. the absorption capacity of the natural environment, paying particular attention to the following areas:*
     - *i. wetlands, riparian areas, river mouths;*
     - *ii. coastal zones and the marine environment;*
     - *iii. mountain and forest areas;*
     - *iv. nature reserves and parks;*
     - *v. areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;*
     - *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;*
     - *vii. densely populated areas;*
     - *viii. landscapes and sites of historical, cultural or archaeological significance.*

3) *Types and Characteristics of Potential Impacts* (Report Section 5.0)

The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—

- *a. the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),*
- *b. the nature of the impact,*
- *c. the transboundary nature of the impact,*
- *d. the intensity and complexity of the impact,*

e. the probability of the impact,
f. the expected onset, duration, frequency and reversibility of the impact,
g. 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, and
h. the possibility of effectively reducing the impact.

However, it is important to note that Schedule 7A states '*The compilation of the information at paragraphs 1 to 3 [*of Schedule 7A*] shall take into account, where relevant, the criteria set out in Schedule 7*.' The main body of this report (Sections 3.0, 4.0 and 5.0) will cover Schedule 7A fully, but it has been set out to present the information under the headings provided for in Schedule 7 in order to assist the Planning Authority in its screening assessment.

1.3 PROJECT TEAM AND CONTRIBUTORS TO THE EIA SCREENING REPORT

This EIA Screening Report and the proposed development has been informed by the accompanying documents submitted with the application (and the relevant listed mitigation measures as included therein). The preparation and co-ordination of this screening report has been completed by AWN and has relied on specialist input from the project design team and applicant, as per Table 1.1.

Table 1.1 *Applicants project team*

Role	Contributor
Applicant	Bluemont Developments (Firhouse) Ltd.
Architectural Design	O'Mahony Pike Architecture Urban Design
Civil Engineering including Flood Risk Assessment, Construction and Environmental Management Plan, Construction Waste Management Plan	PHM Consulting
Landscape Architecture	Studio Aula
Visual Impact Assessment	Doyle + O'Troithigh Landscape Architecture
Photomontages	Digital Dimensions
Population and Human Health; Land Soils, Geology, Hydrogeology, and Hydrology; Air Quality and Climate; Material Assets; Waste Management; Noise and Vibration (construction)	AWN Consulting Limited
Biodiversity, including Appropriate Assessment Screening	Flynn Furney Environmental Consultants

The various reports address a variety of environmental issues and assess the impact of the proposed development and demonstrate that subject to the various construction and design related mitigation measures recommended that the proposed development will not have a significant impact on the environment. This EIA Screening Report should be read in conjunction with the plans and particulars submitted with the planning application.

Best practice mitigation measures for the proposed development during the construction and operational phase are set out in various reports including but not limited to the Construction and Environmental Management Plan (CEMP) and

Construction Waste Management Plan (CWMP), both prepared by PHM Consulting; and the Ecological Impact Assessment (EcIA) that has been prepared by Flynn Furney Environmental Consultants. Measures associated with the construction phase are best practice measures and are in no way included to avoid or reduce any potential harmful effects to any European sites.

Each environmental specialist of the applicants project team was commissioned having regard to their previous experience in EIA; their knowledge of relevant environmental legislation relevant to their topic; familiarity with the relevant standards and criteria for evaluation relevant to their topic; ability to interpret the specialised documentation of the construction sector and to understand and anticipate how their topic will be affected during construction and operation phases of development; ability to arrive at practicable and reliable measure to mitigate or avoid adverse environmental impacts; and to clearly and comprehensively present their findings.

This EIA Screening report was prepared by David Doran and Jonathan Gauntlett. David is an Environmental Consultant with AWN with ongoing roles in the water and waste departments in AWN, primarily related to the preparation of EIAR chapters and waste management plans. David holds a BA in Mathematical Studies and Geography from University College Dublin and MSc in Environmental and Energy Management from the University of Twente. Jonathan is a Principal Environmental Consultant in AWN Consulting with expertise in impact assessment, licensing, environmental compliance and project management. Recent projects include; EIA for SHD and planning applications, EPA Licencing and waste management. Jonathan has over 10 years' experience in environmental compliance, environmental licensing, and urban planning. Jonathan has a BSocSc (Environmental Planning) and BBA (Economics) from the Waikato University in New Zealand and has experience working in the environmental consultancy, planning, and regulatory fields from Ireland, the UK and New Zealand.

2.0 SCREENING EVALUATION

2.1 IS THE DEVELOPMENT A PROJECT

The first step in screening is to examine whether the proposal is a *project* as understood by the EU Directive. For the purposes of the EU Directive, 'project' means:

- the execution of construction works or of other installations or schemes, or
- other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources.

The EPA Guidance (2022) states that if a proposed project is not of a type covered by the Directive, there is no statutory requirement for it to be subject to environmental impact assessment. In determining if the proposed project is of a type covered by the Directive it may be necessary to go beyond the general description of the project and to consider the component parts of the project and/or any processes arising from it.

If any such parts or processes are significant and, in their own right, fall within a class of development covered by the Directive, the proposed Project as a whole may fall within the requirements of the Directive.

Each element of the proposed development has been examined and the development clearly meets the definition of a Project as understood by the EU Directive.

2.2 IS THE DEVELOPMENT A PROJECT THAT REQUIRES A MANDATORY EIA

The next step is to determine if the proposed development is of a *project type* that requires mandatory EIA (i.e., is the proposed development of a project type in which a threshold do not exist). The types of projects to which thresholds do not apply are types that are considered to always be likely to have significant effects.

Ireland's type of projects for which an EIA is mandatory is set out in the Schedule 5 Part 1 and Part 2 of the Regulations. An EIA is deemed mandatory under Section 172 of the Act to accompany a planning application for development for the types of projects set out in Schedule 5. This list was developed from Annex I and Annex II of the EIA Directive. The EPA Guidance (2022) requires and assessment beyond the general description of the project and to consider the component parts of the project and/or any processes arising from it.

In considering the wider context and the component parts of the project of the proposed development the thresholds of relevance to the proposal from Part 2 of Schedule 5 are set out below:

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

For the project types Class 10 (a) to (m) an EIA is mandatory only if the project equals or exceeds, as the case may be, a limit, quantity or threshold set out. Project Class 15 does not set out any thresholds and a case-by-case assessment is required to be undertaken.

2.3 IS THE PROJECT ABOVE THE THRESHOLD FOR EIA

An EIAR is required to accompany an application for permission of a class set out in the Schedule 5 Part 1 and Part 2 of the Regulations which equals or exceeds, as the case may be, a limit, quantity or threshold set for that class of development. A development that does not exceed a limit, quantity or threshold set for that class of development in Schedule 5 of the Regulations is known as a 'sub-threshold development'.

The proposed development and component parts have been considered against the thresholds outlined in Schedule 5, Part 2, Class 10 (a) to (m). The most relevant project type in the context of the proposed development are Class 10 (b)(i) and Class 10 (b)(iv) noted in Section 2.2 above.

Under Class 10 (b) (i) the threshold is '*more than 500 dwelling units'*. Under Class 10 (b) (iv) the appropriate threshold is considered to be '*10 hectares in the case of other*

parts of a built-up area' as the site location is not within a business district but is within a built-up area. The site location is bounded by the residential areas and the Dodder Riverbank Park, the conservative and pragmatic approach is to consider the area to have a predominant land use for residential use rather than business use.

The total site area for the proposed works is c. 0.46 hectares (ha), and the proposed development comprises, at most, 100 no. dwelling units. The proposed development site is not equal to nor does it exceed the limit, quantity or threshold set out in Class 10(b) (i) and (iv); therefore, an EIA is not mandatory.

2.4 CONCLUSION – SUB THRESHOLD DEVELOPMENT

The proposed development is '*of a type set out in Part 2 of Schedule 5 [in the Planning and Development Regulations, 2001 (as amended)] 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*'. The development is outside the mandatory requirements for EIA and is considered to be sub-threshold for the relevant project type.

An EIA Report is still required to accompany a planning application for sub-threshold development which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7. Therefore, the final step in the screening process is to consider the need for an EIA on a sub-threshold basis.

Article 4(4) of Directive 2014/52/EU requires the developer to provide information on the characteristics of the project and its likely significant effects on the environment, to allow the competent authorities to make a determination on the requirement for an EIA. The information required is set out in Annex II A of the Directive and transposed Schedule 7A of the Regulations.

Article 299B(1)(b) requires the Board to be satisfied that the developer has furnished the information listed in Schedule 7A of the Regulations to enable it to carry out its own assessment on the requirement for EIA.

In carrying out an EIA screening the Board is required under Article 299C to take into account:

- the information furnished by the developer for the purposes of Schedule 7A; the criteria referred to under Schedule 7;
- any design or mitigation measures envisaged to avoid or prevent significant adverse effects on the environment;
- the statement provided by the developer in relation to available results of other relevant assessments of the effects on the environment carried out pursuant to European Union legislation other than the Environmental Impact Assessment Directive;
- and the likely significant effect of the development on sites with certain environmental designations, including European Sites.

The remainder of this report presents the information required by Schedule 7A to demonstrate the likely effects on the environment, having regard to the criteria set out in Schedule 7.

The following Sections 3.0, 4.0 and 5.0 will provide information on the characteristics of the proposed development; the location and context, and its likely impact on the

environment. These sub sections also include in accordance with Article 299B(1)(c) a description of any features, if any, of the proposed development and the measures, if any, envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment of the development.

These sections present the information required under Schedule 7A of the Regulations, broadly set out in the structure Schedule 7 to ensure that each aspect for consideration is robustly addressed.

3.0 CHARACTERISTICS OF PROPOSED DEVELOPMENT

This section addresses the characteristics of proposed development by describing the physical characteristics of the whole proposed development and, where relevant, of demolition works; and a description of the location of the proposed development, with regard to the environmental sensitivity of geographical areas likely to be affected.

3.1 SIZE AND DESIGN OF THE PROPOSED DEVELOPMENT

Bluemont Developments (Firhouse) Limited intend to apply to An Bord Pleanála (the Board) for a Strategic Housing Development with a total site area of c.0.46 ha, on lands located at No. 2 Firhouse Road and the former 'Morton's The Firhouse Inn', Firhouse Road, Dublin 24.

The development will consist of the demolition of all existing structures on site (c. 1,326 sq m), including:

- Two storey building formally used as public house, ancillary off-licence and associated structures (c. 972 sq m);
- Two storey building comprising an existing barber shop and betting office (c. 260 sq m);
- Single storey cottage building and associated structures (c. 94 sq m); and
- Eastern boundary wall and gated entrance from Mount Carmel Park.

The development with a total gross floor area of c. 11,638 sq m, will consist of 100 no. residential units arranged in 2 blocks (Blocks 01 and 02) ranging between 3 and 5 storeys in height, over lower ground floor and basement levels, comprising:

- 96 no. apartments (consisting of 2 no. studio units; 45 no. one bedroom units; 10 no. two bedroom (3 person) units; 34 no. two bedroom (4 person) units; and 5 no. three bedroom units), together with private (balconies and private terraces) and communal amenity open space provision at podium and roof levels; and
- 4 no. duplex apartments (consisting of 2 no. one bedroom units and 2 no. two bedroom units (4 person) located within Block 01, together with private balconies and terraces.

The development will also consist of non-residential uses (c. 355 sq m), including:

- 1 no. café (c. 58 sq m) and 1 no. office (c. 30 sq m) located at ground floor level of Block 01;
- 1 no. medical unit (c. 59 sq m) and 1 no. betting office (c. 66 sq m) located at ground floor level of Block 02;

- 1 no barber shop (c. 28 sq m) located at ground floor level between Blocks 01 and 02; and
- 1 no. crèche (c. 114 sq m) located at lower ground floor level of Block 01 and associated outdoor play area to the rear.

Vehicular access to the site will be from the existing access off Firhouse Road. The proposal includes minor alterations to the existing access, including the provision of new and enhanced pedestrian infrastructure.

The development will also consist of the provision of public open space and related play areas; hard and soft landscaping including internal roads, cycle and pedestrian routes, pathways and boundary treatments, street furniture, basement car parking (80 no. spaces in total, including accessible spaces); motorcycle parking; electric vehicle charging points; bicycle parking (long and short stay spaces including stands); ESB substations, piped infrastructural services and connections to existing public services, (including relocation of existing surface water sewer and water main from within the application site onto the public roads area along Firhouse Road and Mount Carmel Park); ducting; plant; waste management provision; SuDS measures; stormwater management and attenuation; sustainability measures; signage; changes in levels; public lighting; and all ancillary site development and excavation works above and below ground.

The site layout for the proposed development is shown in Figure 3.1 below.

Figure 3.1 *Proposed Site Layout Plan (Source: Proposed Site Layout Plan 20022-OMP-00-SP-DR-A-1000)*

3.2 CUMULATION WITH OTHER EXISTING OR PERMITTED DEVELOPMENT

This section outlines the potential cumulation with other existing or permitted development. As part of the assessment of the impact of the proposed development, account has been taken of any relevant developments that are currently permitted, or under construction and substantial projects for which planning has been submitted within the surrounding areas, as well as existing local land uses.

The subject site is located in an urban area zoned for uses including residential development as proposed, in close proximity to good public transport links.

The subject lands, as shown in Figure 3.2, are zoned in the SDCC Development Plan 2016 – 2022 and the Draft South Dublin County Development Plan 2022-2028 as '*Objective LC*' *"To protect, improve and provide for the future development of Local Centres".* Residential use is a 'Permitted in Principle' use under the '*Objective LC*' land use zoning.

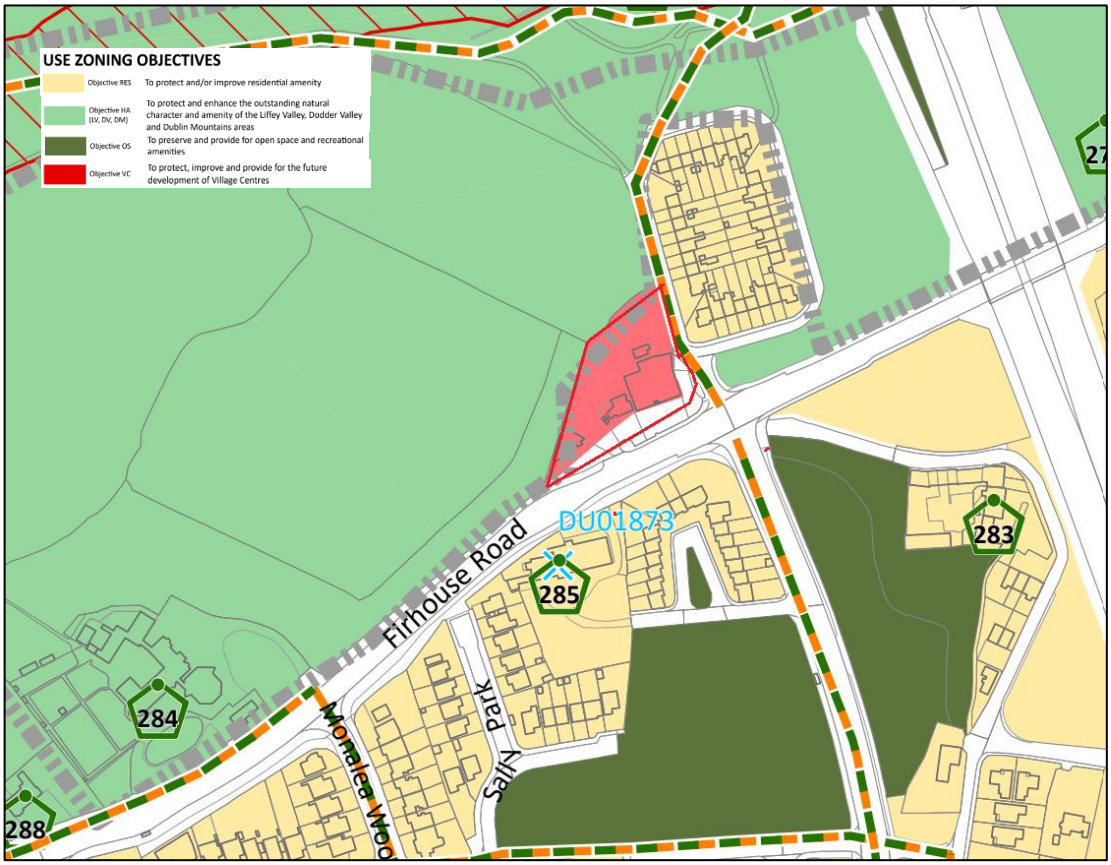

Figure 3.2 Site Zoning (proposed development site outlined in red; - Source: Draft South Dublin County Council Development Plan 2022-2028 Map 9)

The National Planning Application Map was consulted for the previous 5 years to identify notable applications (proposed development), or applications granted permission (permitted development) within that period within 500 m of the development site. The National Planning Application Map includes planning application data sourced from the 31 individual local authorities across Ireland. This list of consented development is shown in Appendix A at the end of this report. The review of the online planning tool noted a large number of insignificant small extensions, changes of use, retention and other minor alterations in the vicinity of the proposed development. These

proposed and consented developments have been, where relevant, considered as a part of the overall project impact.

3.3 NATURE OF ANY ASSOCIATED DEMOLITION WORKS

The proposed development includes the demolition of all existing structures on site which includes the Firhouse Inn building and outbuildings which is an old building constructed with solid stone masonry walls with timber floors and a slate over timber structure roof. The second building which is the barber/betting office is a newer building constructed of concrete masonry walls and concrete floors with slate roof over timber structure.

The open area of the site is of a tarmacadam finished carpark over granular sub-base material.

All areas designated for demolition are shown on the demolition drawings as included with the application and prepared by the project architects, O'Mahony Pike.

The existing structures on site will be demolished as an enabling works contract prior to the construction of the proposed development. As the existing buildings were constructed and in use over a period when asbestos was widely used in buildings, a detailed demolition asbestos survey will be carried out prior to the commencement of demolition works.

The accompanying CEMP and CWMP, both prepared by PHM Consulting provide details on the disposal of rubble, natural slate, timber, masonry, fibre cement slate, steel and concrete. The estimates on the generation of waste from the demolition works are set out in Section 3.5 below.

3.4 USE OF NATURAL RESOURCES (LAND, SOIL, WATER, BIODIVERSITY)

This section describes the proposed development in terms of the use of natural resources, in particular land, soil, water, biodiversity. In the overall context of Dublin, the proposed development there will not be a significant consumption of natural resources during construction and operation.

The main use of natural resources will be land, soil and water.

Other resources used will be construction materials which will be typical raw materials used in construction of residential developments. The scale and quantity of the materials used will not be such that would cause concern in relation to significant effects on the environment.

Land and Soil

The proposed land use is acceptable within the context of the existing and planned land uses and the wider residential land uses in the surrounding area. The site is brownfield site of 0.46 ha which currently exists as an off-licence, barbers, betting office, cottage, and associated hard standing surface car park. The proposed infill development is an effective use of the land, due to the existing availability of critical infrastructure, such as sewage, roads, and public transportation systems.

It is considered that the proposed development will enhance the landscape in the area, replacing a brownfield site, with a mixed-use scheme which incorporates high quality

hard and soft landscaping. These proposals are detailed within the accompanying Landscaping Design Rationale and Drawings prepared by Studio Aula.

The proposed development will require the excavation and removal of soils and materials for the purposes of levelling, excavation for foundations, basement level, landscaping, access and services. It is estimated by the project engineers, PHM Consulting, that c**.** 11,746 m^3 of soils will be excavated to facilitate the development.

Site investigations and environmental soil testing will be undertaken after demolition has taken place and prior to the removal of any excavated material from the proposed development site.

When material is removed off-site it could be reused as a by-product (and not as a waste). If this is done, it will be done in accordance with Article 27 of the *European Communities (Waste Directive) Regulations 2011*, which requires that certain conditions are met and that by-product notifications are made to the EPA via their online notification form. Excavated material should not be removed from site until approval from the EPA has been received. The potential to reuse material as a by-product will be confirmed during the course of the excavation works, with the objective of eliminating any unnecessary disposal of material.

All waste soils prior to being exported off-site, shall be classified as inert, non-hazardous or hazardous in accordance with the EPA's Waste Classification Guidance – List of Waste & Determining if Waste is Hazardous or Non-Hazardous document dated 5th July 2018 to ensure that the waste material is transferred by an appropriately permitted waste collection permit holder and brought to an appropriately permitted or licensed waste facility.

There will be a requirement for deliveries of imported engineering fill, and other construction materials. Other construction activities will include site storage of cement and concrete materials, fuels for construction vehicles.

Water Consumption

The construction or operation of the scheme will not use such a quantity of water to cause concern in relation to significant effects on the environment.

During construction of the scheme, water will be required for offices and welfare facilities, this will be provided by either tanker or temporary connection to the public main by agreement between the Main Contractor and Irish Water. The construction phase will not use such a quantity of water to cause concern in relation to significant effects on the environment.

Once the development is completed and the development is occupied there will be a water primary demand domestic and commercial consumption for usage for showers, toilets and cooking. Potable water requirements for the proposed development have been calculated by PHM Consulting. The Average Water Demand for overall development is 0.51 litres/second, with a Peak Water Demand of 2.58 litres/second. A Pre-connection Enquiry (reference CDS20006237**)** was submitted to Irish Water to determine the feasibility of connecting to the public water supply and drainage infrastructure. A response was received from Irish Water on 28th January 2021 confirming feasibility without the requirement for any infrastructure upgrade (PHM Consulting, 2021a).

The existing water infrastructure within the area has been confirmed with Irish Water to have adequate capacity to cater for the proposed development. There is no proposed extraction of groundwater at the site.

Biodiversity

Investigations into the implications on existing biodiversity including species and habitats has been undertaken through the Ecological Impact Assessment (EcIA), Bat Survey Report, and Appropriate Assessment (AA) Screening Report that have been prepared by Flynn Furney Environmental Consultants and included with the planning documentation.

Bat Surveys was carried out by a suitably qualified and experienced Flynn Furney Environmental Consultants ecologist on the 4th, 6th, 10th, 13th, and 15th May 2022 relating to the Firhouse Inn and adjacent buildings (both proposed to be demolished). The aim of surveys was to identify the extent and quality of bat habitats present on the site.

The EcIA (Furney Flynn, 2021b) defines the site habitats using the Fossitt's Guide to Habitats in Ireland as entirely of Buildings and Artificial Surfaces (BL3). A habitat noted around the site is Mixed Broadleaved/Conifer Woodland (WD2) which occurs in the adjacent Dodder Valley Park. The site is bound by a treeline (WL2). The EcIA defines the site as having low local ecological value.

The on-site habitats were considered to be of extremely limited value for bird species, or amphibian species. No other species were recorded at the site of the proposed development (Flynn Furney, 2021b).

The Bat Survey of Firhouse Inn and Adjacent Buildings (Flynn Furney, 2022a) found that there were no bats or evidence of bats noted in the buildings during the survey; no bat droppings or staining around window sills and exposed features around windows and walls were found during the survey; and no bats were seen emerging from or re-entering the properties during the survey. It was noted that the roof spaces are extensive in area and have sufficient height to be used by bats.

The accompanying AA Screening Report (Furney Flynn, 2021c) has assessed the potential for significant impacts of the construction and operational phases of the proposed development on Natura 2000 sites and habitat loss/alteration, habitat/species fragmentation, disturbance and/or displacement of species, change in population density and changes in water quality.

All Natura 2000 designated sites within 15km of the proposed works were considered during the screening process for the potential of the proposed development to have significant effects upon their qualifying interests or conservation objectives.

Ten (10 no.) designated sites - *Glensmole Valley SAC, the Wicklow Mountains SAC, the Wicklow Mountains SPA, the North Dublin Bay SAC, the South Dublin Bay SAC, the Knocksink Wood SAC, the Ballyman Glen SAC, the North Bull Island SPA, the South Dublin Bay and River Tolka Estuary SPA* and *Rye Water Valley/Carton SAC* - are located within a 15km radius of the Proposed Development. It is stated in the AA Screening that:

> *The proposed development is not considered likely to give rise to any significant impacts on any Natura 2000 designated sites. The development does not have potential for any direct impacts given its location (outside and*

removed from any such sites) and nature (works within a built area and no semi-natural or natural areas to be affected). No indirect impacts are predicted on any Natura 2000 sites. This is due to the relatively small scale and limited nature of the proposed works.

[…]

In conclusion, no impacts are likely as a result of the proposed works on the conservation objectives or overall integrity of any Natura 2000 Site. Therefore, it is concluded that (Stage II) Appropriate Assessment is not required.

In respect of the foregoing; the low local ecological value for the site; the low importance for roosting, commuting and foraging bats; the lack of direct pathways between the Site and Natura 2000 sites; and brownfield / developed nature of the site; the proposed development is not considered to consume biodiversity resources of sensitivity. However, it is noted that given the suitability of the Firhouse Inn, the future presence of bats cannot be ruled out (Flynn Furney, 2022a). A pre-works internal survey of both buildings is required immediately before any works involving demolition and renovation are carried out.

3.5 PRODUCTION OF WASTE

Construction and Demolition Phase

During the construction and demolition phases, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

The proposed development includes the demolition of all existing structures on site which includes the Firhouse Inn building and outbuildings which is an old building constructed with solid stone masonry walls with timber floors and a slate over timber structure roof. The second building which is the barber/betting office is a newer building constructed of concrete masonry walls and concrete floors with slate roof over timber structure. All areas designated for demolition are shown on the demolition drawings as included with the application and prepared by the project architects, O'Mahony Pike.

The estimated waste generation, off-site reuse, recycle and disposal rates for construction waste for the proposed developments are presented in Table 3.1 and Table 3.2.

Table 3.1 *Estimated off-site reuse, recycle and disposal rates for demolition waste*

Demolition of Existing Buildings							
Waste Type	Weight	Reuse/Recovery		Recycle		Disposal	
	Tonnes	%	Tonnes	%	Tonnes	%	Tonnes
Single Storey Building							
Rubble	90	40	36	0	0	60	54
Natural Slate	5	60	3	0	0	40	2
Timber	5	0	0	0	0	100	5
Two Storey Building							
Rubble	700	40	280	0	0	60	420
Masonry	500	0	0	0	0	100	500
Timber	25	0	0	0	0	100	25
Natural Slate	15	60	9	0	0	40	6
Fibre Cement Slate	4	0	0	0	0	100	4
Steel	5	0	0	100	5	0	0
Two Storey New Building							
Masonry	320	0	0	0	0	100	320
Concrete	40	0	0	0	0	100	40
Timber	5	0	0	0	0	100	5
Fiber Cement Slate	10	0	0	0	0	100	10
Steel	10	0	0	100	10	0	0
Total	**1734**	**19**	**328**	**0.9**	**15**	**80**	**1391**

Table 3.2 *Estimated off-site reuse, recycle and disposal rates for construction waste*

Waste Type	Tonnes	Reuse/Recovery		Recycle		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	360	10	6	80	288	10	36
Wood	30	40	13	55	16.5	15	4.5
Cementitious Board	110	30	33	60	66	10	11
Metals	85	5	4.25	90	76.5	5	4.25
Concrete	65	30	19.5	65	42.25	5	3.25
Other	160	20	32	60	96	20	32
Total	**810**		**136.75**		**585.25**		**88**

Waste will also be generated from construction workers e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

It should be noted that until final materials and detailed construction methodologies have been confirmed it is difficult to predict with a high level of accuracy the construction waste that will be generated from the construction of the proposed development as the exact materials and quantities may be subject to some degree of change and variation during the construction process. However, the above estimates are considered to be the worst-case scenario.

Operational Phase

The proposed development will give rise to a variety of everyday waste and recycling from the development during the operational phase, i.e. when the project is completed, and fully operational. The typical non-hazardous and hazardous wastes that will be generated at the proposed development will include the following:

- Dry Mixed Recyclables (DMR) - includes wastepaper (including newspapers, magazines, brochures, catalogues, leaflets), cardboard and plastic packaging, metal cans, plastic bottles, aluminium cans, tins and Tetra Pak cartons;
- Organic waste – food waste and green waste generated from internal plants / flowers;
- Glass; and
- Mixed Non-Recyclable (MNR)/General Waste.

In addition to the typical waste materials that will be generated at the development on a daily basis, there will be some additional waste types generated less frequently / in smaller quantities which will need to be managed separately including:

- Green / garden waste may be generated from external landscaping;
- Batteries (both hazardous and non-hazardous);
- WEEE (both hazardous and non-hazardous);
- Printer cartridges / toners;
- Chemicals (paints, adhesives, resins, detergents, etc.);
- Light bulbs;
- Textiles;
- Waste cooking oil (if any generated by the residents or commercial tenants);
- Furniture (and, from time to time, other bulky wastes); and
- Abandoned bicycles.

Wastes should be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the re-use, recycling and recovery of waste with diversion from landfill wherever possible.

The estimated waste generation for the development for the main waste types is presented in Table 3.3.

Table 3.3 Estimated waste generation for the proposed development for the main waste types

Total waste production per week in kg				
	Waste production per person in 2018 according to National Waste Statistics Summary Report (kg)*	Waste person/week (kg)	Total residents	Waste person/week (kg)
Residential	217.5	217.5 / 52 = 4.2	238.5	4.2 x 238.5 = 1,001.7
Creche (27 children + 4 staff)**			15.5	4.2 x 15.5 = 65.1
Total				**1066.8**

*assume black, brown and recyclable bin from NWSSR
**assume 50% already included in household values.

All waste contractors collecting waste from the site must hold a valid collection permit to transport waste must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO) and waste will only be brought to suitably registered/permitted/licenced facilities. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices.

These measures will ensure the waste arising from the development is dealt with in compliance with the provisions of the *Waste Management Act 1996*, as amended, associated Regulations, the *Litter Pollution Act 1997* and the *EMR Waste Management Plan (2015 - 2021)*. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

3.6 POLLUTION AND NUISANCES

There are potential short-term nuisances such as dust, noise, as well as the potential for pollution of groundwater associated with construction activities. These construction activities shall only take place in accordance with standard construction times or permitted times as conditioned as follows: 7am – 7pm Monday to Friday; 7am – 2pm Saturdays, with no works Sundays or on Public Holidays. No activity, which would reasonably be expected to cause annoyance to residents in the vicinity, will take place outside of these hours. If there is any occasion when work must be complete outside these hours advance notice will be provided to the local authority, businesses and residents in the vicinity.

The Construction Environmental Management Plan (CEMP) for the proposed development has been prepared by PHM Consulting and submitted with the planning documentation. The CEMP outlines construction phase mitigation and management of; air quality control (dust), noise and vibration, fuel and chemical handling groundwater and surface water, and erosion and sediment control measures that will be undertaken during the construction phase. All mitigation measures outlined therein will be implemented, as well as any additional measures required pursuant to planning conditions which may be imposed.

The CEMP will be a live document and it will go through a number of iterations before works commence and during the works. The CEMP sets out requirements and

standards which must be met during the construction stage and includes the relevant mitigation measures. These measures associated with the construction phase are best practice measures, and are in no way included to avoid or reduce any potential harmful effects to any European sites.

This CEMP will be maintained by the contractors during the construction and operational phases and covers all potentially polluting activities and include an emergency response procedure. All personnel working on the site will be trained in the implementation of the procedures.

After the implementation of a robust CEMP, pollution and nuisances during construction are not considered likely to have the potential to cause significant effects on the environment.

During the operation of the proposed development the residential and commercial units will be managed effectively in accordance with planning conditions to avoid nuisance.

3.7 RISK OF MAJOR ACCIDENTS AND/OR DISASTERS

Landslides, Seismic Activity and Volcanic Activity

There have been no recorded landslide events at the site. Due to the local topography and the underlying strata, there is a negligible risk of a landslide event occurring at the site. There is a very low risk of seismic activity to the proposed development site. There are no active volcanoes in Ireland so there is no risk from volcanic activity.

Flooding/Sea Level Rise

A Flood Risk Assessment (FRA) is included as Section 7 of the Water Services Report prepared by PHM Consulting (2020). The potential risk of flooding on the site was reviewed with regard to incidences of historical, regional and local flooding relevant to the area of the subject site.

The FRA notes that the site would be considered an area of low risk of fluvial or coastal flooding and not deemed at risk of pluvial or groundwater flooding. No flood incidents have been recorded on the site or in any area adjacent to the site. The FRA concludes that there is no significant risk of flooding due to the development and that given the SuDS measures incorporated in the proposed development, there will be a reduction in both volume and rate of surface water discharge from the site which will reduce the risk of flooding to public infrastructure post development.

It is the opinion of PHM Consulting (2021a) that the proposed development site is located within a Flood Zone C and therefore the proposed development is deemed acceptable under the Flood Protection Guidelines, and a justification test is not required. .

Major Accidents/Hazards

The potential interaction with sites registered under the Seveso Directive (Directive 82/501/EEC, Directive 96/82/EC, Directive 2012/18/EU) and the Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the “COMAH Regulations”), which implement the latest Seveso III Directive (2012/18/EU) has been considered in respect to notified installations and their proximity to the proposed development site.

The Irish Distillers Ltd site (Lower Tier Seveso site) at 7-9 Robinhood Road, Fox and Geese, Dublin 22 this is the closest Seveso site to the proposed development and is located 4 km to the north. The consultation distance for the Irish Distillers Ltd is 300 m as listed within Appendix 8 of the Dublin City Development Plan 2022 – 2028. The B.O.C. Gases site (Upper Tier Seveso site) is located 4.2 km from the proposed development site. The consultation distance for the B.O.C. Gases site is 700 m as listed within Appendix 8 of the Dublin City Development Plan 2022 – 2028.

Due to the proposed development falling well beyond the consultation distanced of the closest Seveso sites these sites will not form a constraint to the proposed residential and commercial development at this location.

The proposed development has been designed in accordance with the Safety, Health and Welfare at Work Act 2005 (S.I. 10 of 2005) as amended and the Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016 (S.I. 299 of 2007, S.I. 445 of 2012, S.I. 36 of 2016) as amended and associated regulations.

Minor Accidents/Leaks

There is a potential impact on the receiving environment as a result of minor accidents/leaks of fuel/oils during the construction. However, the implementation of the mitigation measures set out in this report and the CEMP accompanying the application will ensure that the residual effect on the environment is imperceptible.

3.8 RISKS TO HUMAN HEALTH

The EC 2017 *Guidance on the preparation of the Environmental Impact Assessment Report* outlines that human health is a very broad factor that is be highly project dependent. The guidance states: *The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study.*

The EPA guidance explains that the scope of population and human health is project dependant but should consider significant impacts likely to affect aspects such as: convenience (expanded range of transport options); nuisance/ disturbance from lighting; displaced settlement patterns (residential); employment opportunities; settlement patterns; land use patterns; access for tourism, amenity, health impacts and/or nuisance due to noise, dust or water pollution; and health and safety.

The characteristics of the proposed development, in terms of the risks to human health (for example, due to water contamination or air pollution) have been considered. The primary potential impacts of the proposed development on human health would be increased air pollution, noise, traffic, visual impact, or pollution of groundwater/watercourses as a result of the proposed development.

The subject site is located in an area zoned for residential development, proximate to the Dodder Riverbank Park and public transport services. The subject site is zoned for residential use, as set out in the South Dublin County Council Development Plan 2016-2022.

It is anticipated that an increase in residential and commercial development at this location would not have a significant negative impact on local parks, local tourism or shopping amenities that would pose a risk to human health. The increase in local population would only serve to continue the existing usage of such facilities. Geological Survey Ireland (GSI) data indicates that the site does not lie within a drinking water protection area. The area is serviced by mains water supply therefore it is unlikely that any wells are used for potable water supply. The proposed mitigation measures during the construction phase, including the implementation of a CEMP will ensure that there are no impacts on groundwater or the stormwater mains.

The proposed development design includes an appropriately designed stormwater network that will ensure that during the operational phase the risk from diesel spills through the carparks or unloading areas is minimised. Wastewater from the proposed development will connect to mains supplies and will not have a potential impact on local amenities or the local population.

The CEMP will incorporate and best practice construction methodologies for the control of dust generation, traffic, and noise, as well as the management of impacts on groundwater or the existing drainage ditches during the construction phase. Any impacts associated with construction dust generation, traffic, and noise will be short term. These measures associated with the construction phase are best practice measures and are in no way included to avoid or reduce any potential harmful effects to any European sites.

4.0 LOCATION AND CONTEXT OF THE PROPOSED DEVELOPMENT

4.1 EXISTING AND APPROVED LAND USE

The subject site as existing comprises of the former ‘The Firhouse Inn’ public house and off-licence, barbers, betting office, cottage and other ancillary structures and is located at Firhouse Road, Firhouse, Dublin 24, and falls within the administrative area of South Dublin County Council. The site exists at present as an area with several commercial units and associated hard standing surface car park. There is no notable landscaping or planting on the site.

The boundary of the site comprises a combined stone and concrete block wall to the west, north and east of the site. Mature deciduous and coniferous trees exist on the opposite side of the walls to the west and north. Mount Carmel Park road straddles the east of the site while the site is bounded to the south by Firhouse Road.

The site is bound by Dodder Riverbank Park to the north and west of the site. Mount Carmel Park comprises residential houses which lie to the east while residential houses and Sally Park Nursing home stand on the far side of the Firhouse Road to the south of the site.

As stated in the SDCC Development Plan 2016 – 2022 and draft SDCC Development Plan 2022 – 2028 Zoning maps the site is zoned as “*To protect, improve and provide for the future development of Local Centres”.*

There are a variety of public transport options available to visitors and residents at the subject site. There are pedestrian routes, bus routes, cycling paths, and Luas facilities within reach of the development, providing significant connectivity to major destinations such as Dundrum Shopping Centre, Dún Laoghaire and the City Centre area.

Nearby recreational facilities include the Tallaght Sports Complex, Dodder Riverbank Park, Firhouse Carmel Football Club pitch, National Basketball Arena and the Greenhills Archers Club.

4.2 RELATIVE ABUNDANCE, AVAILABILITY, QUALITY AND REGENERATIVE CAPACITY OF NATURAL RESOURCES IN THE AREA AND ITS UNDERGROUND

4.2.1 Hydrogeology

The GSI (2020) National Bedrock Aquifer Map, the GSI classifies the bedrock aquifer beneath the subject site as a 'Locally Important Aquifer – Bedrock which is Moderately Productive only in Local Zones'. The proposed development is within the 'Dublin' groundwater body and is classified as 'Poorly productive bedrock'. The most recent WFD groundwater status for this water body (2013-2018) is 'Good' with a current WFD risk score of 'Not at risk'.

The topsoil beneath the site and to the immediately south and east surrounding area is classified as Made Ground. Directly north and west of the site is BminSW - Shallow well drained mineral (Mainly basic) classification.

The GSI/ Teagasc (2020) mapping database of the quaternary sediments in the area of the subject site indicates the principal subsoil type in the residential area comprises Limestone till (TLs, i.e. Till derived from limestone). Mapping from the Geological Society of Ireland (GSI, 2020) indicates the bedrock underlying the site is part of the Lucan Formation (code CDLUCN) and made up of dark limestone and shale (Calp).

The GSI Well Card Index is a record of wells drilled in Ireland, water supply and site investigation boreholes. It is noted that this record is not comprehensive as licensing of wells is not currently a requirement in the Republic of Ireland. This current index does not show any wells drilled or springs at the site or surrounding area. The area is serviced by Local Authority mains therefore it is unlikely that any wells are used for potable supply. The site is not located near any public groundwater supplies or group schemes. There are no groundwater source protection zones in the immediate vicinity of the site.

The Dodder Terraces (SD004) is a geological heritage site which runs adjacent to the north and west boundary to the proposed development site. The proposed development will not infringe on the geological heritage site.

4.2.2 Hydrology

The proposed development site lies within the Liffey and Dublin Bay catchment (Hydrometric Area 09) and River Dodder sub-catchment (WFD name: Dodder_SC_010, Id 09_16) (EPA, 2020).

There are no waterbodies within the site of the proposed development. The closest surface water feature to the proposed development is the Dodder River, located c. 180 m to the north of the site. The River Dodder continues to flow north east for a further ~9.4 km before discharging into the Liffey Estuary lower transitional waterbody which in turn discharges into Dublin Bay coastal waterbody which includes Special Area of Conservation (SAC) and proposed Natural Heritage Area (pNHA). The Whitestown Stream, is located c. 400 m to the west of the development site. This Whitestown Stream is a tributary of the River Dodder and joins the River Dodder upstream from/ to the west of the development site.

Stormwater from the proposed development site shall discharge to the existing 300 mm surface water sewer located on the Mount Carmel Park road, and which is being diverted from its current location which runs diagonally across the rear of the site, , to along the Firhouse Road and turning down onto Mount Carmel Park. The stormwater will ultimately outfall to to the River Dodder. The River Dodder ultimately outfalls to the Liffey Estuary, which is hydrologically connected to the South Dublin Bay SAC, North Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

There is, therefore, an indirect pathway from the proposed development to these designated European sites.

The Dodder sub-catchment discharges into the Liffey Estuary Lower. The River Dodder (DODDER_040_) has a WFD status (2013-2018) of 'Poor; the Dublin Bay Coastal waterbody has a WFD status of 'Good'. The Liffey Estuary Lower waterbody has a WFD risk score of 'At risk of not achieving good status' while the Dublin Bay waterbody has a WFD risk score of 'Not at risk'. The surface water quality data for the Liffey Estuary and Dublin Bay (EPA, 2021) indicate that they are 'Unpolluted'. Under the 2015 'Trophic Status Assessment Scheme' classification of the EPA, 'Unpolluted' means there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present.

This 'Poor' WFD status for the River Dodder is related to its biological status (invertebrate); all chemical conditions have been assigned a value of "pass" or "high". The most recent quality data (1998) in the proximity of the site (c. 230 m) for the River Dodder (RS09D010420) indicated that the quality was 'Good' giving it a Q value of 4.

All foul drainage is to be drained by gravity via a minimum 225mm sewer system and is to be connected to the existing Public Sewer. The foul water from the site will then be pumped to Ringsend Waste Water Treatment Plant (WWTP) where it will be treated and discharged to the Dublin Bay. There is, therefore, also an indirect pathway from the proposed development to the designated European sites at Dublin Bay (South Dublin Bay SAC, North Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).

Given the nature of the proposed residential and commercial development site, there will not be perceptible effect on the River Dodder taking into account the extent of loading of contaminant, distance between the source and the river and significant dilution in the surface water sewer will ensure any released hydrocarbons (or other contaminants) are at background levels (i.e., with no likely impact above water quality objectives as outlined in S.I. No. 272 of 2009, S.I. No. 386 of 2015 and S.I. No. 77 of 2019). Therefore, there will no effect on the ability for the River Dodder to attain a 'Good' status in the future.

There is no perceptible effect on Dublin Bay. Given the nature of the proposed residential and commercial development, even without treatment at Ringsend WWTP the average effluent discharge would not impact on the overall water quality within Dublin Bay and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive). In regards to the linkage through the stormwater drainage, no perceptible effect is foreseen either taking into account the extent of loading of contaminant, distance between the source and Dublin Bay (c. 17.8 km) and significant dilution in the surface water sewer will ensure any released hydrocarbons are at background levels (i.e., with no likely impact above water quality

objectives as outlined in S.I. No. 272 of 2009, S.I. No. 386 of 2015 and S.I. No. 77 of 2019).

It is concluded that there are no pollutant linkages as a result of the construction or operation of the Proposed Development which could result in a water quality impact which could alter the habitat requirements of the Natura 2000 sites within Dublin Bay.

4.2.3 Biodiversity and Areas of Conservation

The potential ecological impacts of proposed development have been considered in terms of the sensitivity of the location through the Ecological Impact Assessment (Flynn Furney, 2021b) and AA Screening Report (Flynn Furney, 2021c) included with the planning documentation.

The site habitats consist of Buildings and Artificial Surfaces (BL3).

There is a total of 7 no. SACs and 3 no. SPAs located within 15km of the proposed development, with no Natura 2000 sites within 5 km. The closest sites are the Wicklow Mountains SPA and SAC (site code 4040) located 5.7km and 6km respectively from the site and South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA (site code 004006) both located 9.9km from the site.

The AA Screening (Furney Flynn, 2021c) states that there is no direct hydrological connection between the site and any Natura 2000 sites or SACs or SPAs located within the Zone of Influence. There are however indirect hydrological connections as stated in Section 4.2.2 above.

4.3 ABSORPTION CAPACITY OF THE NATURAL ENVIRONMENT

The proposed development due to its size and localised nature will not have any effect on wetlands, riparian areas, river mouths, coastal zones and the marine environment, mountain and forest areas, and nature reserves, or densely populated areas.

The River Dodder is a proposed Natural Heritage Area (pNHA) which is located within close proximity to the site. There indirect hydrological connections to coastal zones and the marine environment as stated in Section 4.2.2 above. The distance from source to coastal zones and the marine environment is ~9.4 km. Due to the separation distance, any low contaminant loading will be attenuated diluted and dispersed to below statutory water quality standards within c. 0.5 km of the site, and therefore is no perceptible risk to these areas. An area of geological interest, known as the “Dodder Terraces”, is located in close proximity to the site and also straddle the north and western boundaries of the site. As mentioned in Section 4.2.1, the proposed development will not infringe on the geological heritage site.

As indicated on Figure 4.1 below, there is an area zoned to “Protect and Preserve Significant Views”, looking from the N81 across Riverbank Park with views of the Wicklow Mountains.

The SDCC Development Plan 2022 - 2028 Zoning Map 10 highlights areas of particular interest in close proximity to the proposed development site.

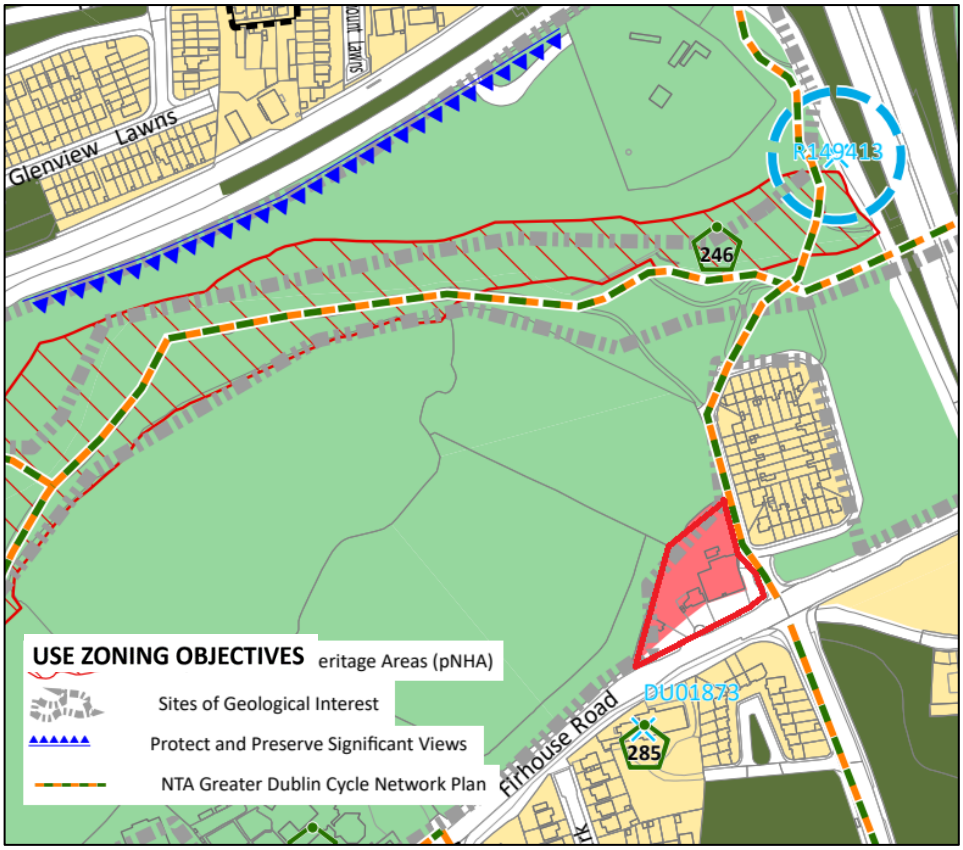

Figure 4.1 *Areas of Interest (Source: Draft SDCC Development Plan 2022 - 2028 Map 10)*

Photomontages prepared by Digital Dimensions Architectural Visualisation, and The LVIA prepared by Doyle + O'Troithigh include a view of the site from the area designated to '*Protect and Preserve Significant Views*' above in Figure 4.1. Refer to Digital Dimensions Architectural Visualisation, and The LVIA prepared by Doyle + O'Troithigh and Section 5.6 below.

The development site is not located within or adjoining an Architectural or General Conservation Area and is not located within or adjoining a Native Woodland Trust.

The environmental sensitivity of the proposed location in respect of Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive has been addressed in the AA Screening Report.

5.0 TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS

This section sets out the likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2 (as set out in Sections 4 and 5 above), with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act (as amended).

The quality, magnitude and duration of potential impacts are defined in accordance with the criteria provided in the *Guidelines on Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022) this criteria is duplicated in Table 5.1.

Table 5.1 *Schedule of Impacts following EPA 2022 Guidelines*

Characteristic	Term	Description
Quality of Effects	Positive	A change which improves the quality of the environment
	Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative/Adverse	A change which reduces the quality of the environment
Describing the Significance of Effects	Imperceptible	An effect capable of measurement but without significant consequences
	Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
	Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
	Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
	Significant Effects	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
	Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	Profound Effects	An effect which obliterates sensitive characteristics
Describing the Extent and Context of Effects	Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
	Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Describing the Probability of Effects	Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Describing the Duration and Frequency of Effects	Momentary Effects	Effects lasting from seconds to minutes
	Brief Effects	Effects lasting less than a day
	Temporary Effects	Effects lasting less than a year
	Short-term Effects	Effects lasting one to seven years.
	Medium-term Effects	Effects lasting seven to fifteen years
	Long-term Effects	Effects lasting fifteen to sixty years
	Permanent Effects	Effects lasting over sixty years
	Reversible Effects	Effects that can be undone, for example through remediation or restoration
	Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)

Characteristic	Term	Description
Describing the Type of Effects	Indirect Effects (a.k.a secondary or Off-site effects)	Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative Effects	The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
	'Do Nothing Effects	The environment as it would be in the future should the subject project not be carried out
	`Worst case' Effects	The effects arising from a project in the case where mitigation measures substantially fail
	Indeterminable Effects	When the full consequences of a change in the environment cannot be described
	Irreversible Effects	When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost
	Residual Effects	The degree of environmental change that will occur after the proposed mitigation measures have taken effect
	Synergistic Effects	Where the resultant effect is of greater significance than the sum of its constituents (e.g. combination of Sox and NOx to produce smog)

5.1 POPULATION AND HUMAN HEALTH

5.1.1 Construction Phase

The potential impacts of the proposed development on population human health and populations would be nuisances such increased air pollution (dust), noise, traffic, and visual impacts of the construction and demolition phases. The likely potential impact of the proposed development with respect to population and human health during the construction phase can be considered to be; ***negative***, ***not significant*** and ***short-term.***

These potential short-term impacts during the construction phase will be mitigated in accordance with the CEMP and through implementation of binding hours of construction.

There is no significant risk of pollution of soil, groundwater or watercourses associated with the proposed development. The construction phase of the proposed development will provide for the temporary employment of construction workers which will provide benefits for local businesses providing retail or other services to construction workers and potential additional employment in the area.

The existing structures on site will be demolished as an enabling works contract prior to the construction of the proposed development. As the existing building was constructed and in use over a period when asbestos was widely used in buildings, a detailed asbestos survey will be carried out prior to the commencement of demolition works.

The CEMP sets out mitigation measures in the form of requirements and standards in relation to construction noise, traffic, and dust generation that must be met during the construction stage. The accompanying outline CEMP prepared by PHM Consulting

notes that development will be undertaken in accordance with all regulatory, legal and other requirements with all mitigation and safety measures put in place to ensure a responsibly managed construction process. All mitigation measures outlined therein will be implemented, as well as any additional measures required pursuant to planning conditions which may be imposed.

The residual impact of the proposed development with respect to population human health during the construction phase after the implementation of mitigation measures set out in this report, is ***negative*** and ***short-term***.

Having regard to the foregoing, the effect of population and human health impacts arising from the proposed development during the construction phase is ***not significant***.

5.1.2 Operational Phase

Upon completion, the operational phase will provide an important material asset for the area in terms of high-quality residential housing, easing the pressure on the rental market.

The proposed development will not result in any off-site exceedance of the relevant ambient air quality standards, see Section 5.4 for further detail. The proposed development will not generate significant outward noise, see Section 5.5 for further detail.

There are no planned direct discharges to water or land, although the risk of accidental discharge or spills exists. A number of design measures are proposed to prevent the contamination of groundwater during the operational phase as described in Section 5.2.

The design of the proposed development has due regard of the sensitivity of the surroundings, and is not likely to adversely impact on local populations. Landscape and Visual impacts are discussed further in Section 5.6.

The proposed development comprises a residential development which is not expected to significantly add to the current noise level of the surround environment. Noise and Vibration impacts are discussed further in Section 5.5.

The residual impact of the proposed development with respect to populations and human health during the operational phase is ***positive*** and ***long-term***.

Having regard to the foregoing, the effect of population and human health impacts arising from the proposed development during the operational phase is ***not significant***.

5.2 LAND, SOILS, GEOLOGY, HYDROGEOLOGY, HYDROLOGY

5.2.1 Construction Phase

Potential for increased sediment and runoff from excavation, soil handling, removal and compaction

Land clearing, earthworks and excavations will be required for construction phase operations to facilitate site clearance, construction of new building, basements, foundations and installation of services. This will include site levelling, construction, and building foundation excavation, this will necessitate the removal of existing hardstanding cover and the excavation of soil and subsoils.

The construction works will alter the current drainage regime from the brownfield site. and the rate and volume of direct surface run-off. The potential impact of this is a possible increase in surface water run-off and sediment loading, which could potentially impact local drainage if not adequately mitigated.

Run-off water containing silt will be contained on-site via settlement tanks and treated to ensure adequate silt removal. Silt reduction measures on site will include a combination of silt fencing, settlement measures (silt traps, silt sacks and settlement tanks / ponds).

Movement of material will be minimised to reduce the degradation of soil structure and generation of dust. Excavations will remain open for as little time as possible before the placement of fill. This will help to minimise the potential for water ingress into excavations. Soil from works will be stored away from existing drainage features to avoid any potential impact.

The site preparation, excavations and levelling works required to facilitate construction of foundations, access roads and the installation of services will require excavation of soil, stones, and bedrock (if encountered). It has been estimated by the project engineers, PHM Consulting, that c**.** 11,746 m^3 of soils will be excavated to facilitate the development. Any material, which is exported from site, if not correctly managed or handled, could impact negatively on human beings (onsite and offsite) as well as water and soil environments.

Prior to removal, all excavated materials will be visually assessed for signs of possible contamination such as staining or strong odours. Should any unusual staining or odour be noticed, samples of this soil will be analysed for the presence of possible contaminants in order to ensure that historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be disposed of by a licensed waste disposal contractor.

Excavated soil will arise during the construction period and will be stored (if required) on site prior to being removed by a specialist contractor as detailed within the accompanying CWMP prepared by PHM Consulting.

Stockpiles of soil and construction aggregate can have the potential to cause negative impacts on air and water quality. The effects of soil stripping and stockpiling will be mitigated against through the implementation of appropriate earthworks handling protocol during construction. It is anticipated that any stockpiles will be formed within the boundary of the site and there will be no direct link or pathway from this area to any surface water body. Overburden material will be protected from exposure to wind by storing the material in sheltered parts of the site, where possible.

In respect of the foregoing, and the measures set out in the project CEMP, the residual impact as a result of the potential for increased sediment and runoff from excavation works on, land, soils, geology, hydrogeology, and hydrology during operation is considered to be ***negative, imperceptible*** and **short-term**.

Potential for contamination from Accidental Spills and Leaks

There is potential for water (rainfall and/or discontinuous perched groundwater) to become contaminated with pollutants associated with construction activity. Contaminated water which arises from construction sites can pose a significant short-term risk to water quality for the duration of the construction if contaminated water is allowed percolate to the aquifer or accidental discharges into surface water.

Machinery activities on site during the construction phase may result in run off of contaminated waters into surface water networks or ground water. Potential impacts could arise from accidental spillage of fuels, oils, paints, cement, etc. which could impact surface water if allowed to runoff into surface water systems and/or receiving watercourses or groundwaters.

The potential impacts during the construction phase are required to be mitigated by ensuring best practice construction with respect to storage of any hazardous substances (fuels, chemicals and other construction materials that may pose a risk to the environment). The project specific CEMP sets out these best practice construction methodology to manage the risk of accidental spills and leaks. These measures associated with the construction phase are best practice measures, and are in no way included to avoid or reduce any potential harmful effects to any European sites.

Given scale and localised nature of the proposed development, and the lack of impact pathways between the Site and surface water bodies here is no likelihood of significant effects on water quality.

In respect of the foregoing, and the measures set out in the project CEMP, the residual impact in respect of the potential for impacts related to contamination from accidental spills on, soils, geology, hydrogeology, and hydrology during operation is considered to be ***negative, imperceptible*** and **short-term.**

Dewatering, Run-off and Sediment Loading

There is the potential for contaminated surface water run-off from site preparation, levelling, landscape contouring and excavations during the construction phase may contain increased silt levels or become polluted from construction activities. Silt water can arise from excavations, exposed ground, stockpiles, and access roads.

Construction water containing large amounts of silt or other contaminants such as hydrocarbons has the potential to cause negative, and short-term impacts receiving surface water bodies, or surface water networks, if not adequately mitigated.

A Construction Environmental Management Plan (CEMP) has been prepared by PHM Consulting and sets out a framework of measures to address the implications of the construction works. The Contractor appointed to undertake the works will be required to develop this framework document as part of their overall Construction Management Plan in line with their obligations under the Safety, Health and Welfare at Work (Construction) Regulations 2013 as amended.

The CEMP details measures to help ensure that the receiving surface water drainage network is sufficiently protected for the duration of the proposed works. It is noted that these are standard construction best-practise procedures and are in no way included as mitigation to protect any European Sites. Where dewatering is required during the construction phase, dirty water will be fully and appropriately attenuated, through silt bags, before being appropriately discharged No silty or contaminated water from the construction works will be discharged to any stormwater network.

In respect of the foregoing, and the measures set out in the project CEMP, the residual impact in respect of the potential for impacts related to dewatering on, soils, geology, hydrogeology, and hydrology during operation is considered to be ***negative, imperceptible*** and **short-term.**

Foul Water during construction

Welfare facilities will be provided for the contractors on site during the construction works. During construction, portable sanitary facilities will be provided with waste collected and disposed of appropriately. There are no predicted adverse impacts on wastewater during construction.

No silty or contaminated water from the construction works will be discharged to any stormwater network but should any discharge of contaminated construction water be required during the construction phase, the discharge will be to foul sewer following agreement with South Dublin County Council / Irish Water.

With due consideration to the characteristics of the proposed development and the site location, there are no likely potential impacts of the proposed development in relation to foul water during construction, under the environmental factor of land, soils, geology, hydrogeology, and hydrology.

Having regard to the foregoing, the effect of land, soils, geology, hydrogeology, hydrology impacts arising from the proposed development during the construction phase is ***not significant***.

5.2.2 Operational Phase

Direct and Indirect Discharges Management

The proposed stormwater drainage strategy is to collect all run-off from roofs, upper level garden areas, ground level paved areas and basement levels and to discharge to the public sewer network located on Mount Carmel Park. Where possible all water will be conveyed via a gravity system. The design of the stormwater drainage network for the proposed development has taken cognisance of the objectives and guidance contained in the Greater Dublin Strategic Drainage Study (GDSDS). The proposed Sustainable Urban Drainage Systems (SuDS) method of water disposal at the site will ensure that no negative impacts to surface water or stormwater leaving the site will arise due to the attenuation measures planned, with the proposal improving the water environment at the location. The SUDS features associated with the proposed development are not included within the design to avoid or reduce any potential harmful effects to any European sites.

The stormwater and surface water drainage and disposal of foul water is detailed further within the accompanying Water Services Report prepared by PHM Consulting.

No direct hydrological connection exists between the site and any Natura 2000 sites or SACs or SPAs located within the Zone of Influence. The nature of the proposed development, separation distances, and dilution factors means that there is no likelihood of significant effects on water quality in Dublin Bay and the SAC / SPA located there, as a result of the proposed development.

The residual impact on land, soils, geology, hydrogeology, and hydrology during operation is considered to be ***neutral, imperceptible*** and ***long term.***

Flood Risk

The proposed SuDS measures ensures the proposed development has been designed to cater for 1:30-year and 1:100-year storm events, mitigating the risk of flooding within the confines of the site. A Justification Test is not deemed necessary as the site is located within a Flood Zone Type C area[1]. The PHM Consulting FRA concludes that *'Having considered the various forms of flooding which presents risk to persons and property – Fluvial, Coastal, Pluvial, Groundwater, it is concluded that the proposed development is located within a Flood Zone C and therefore deemed acceptable under the Flood Protection Guidelines'*.

The residual impact on land, soils, geology, hydrogeology, and hydrology during operation is considered to be ***neutral, imperceptible*** and ***long term.***

Having regard to the foregoing, the effect of land, soils, geology, hydrogeology, hydrology impacts arising from the proposed development during the operational phase is ***not significant***.

5.3 BIODIVERSITY

5.3.1 Construction Phase

The potential impact from the proposed development on biodiversity with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive has been considered as a part of the Ecological Impact Assessment, Bat Survey Report and AA Screening Report by Flynn Furney Environmental Consultants provided with the planning documentation.

The site is brownfield in nature and exists as the former 'The Firhouse Inn' public house and off-licence, barbers, betting office, cottage and associated car park. The site is urban in nature and has little value in terms of biodiversity. The AA Screening Report for the site has confirmed that the site is not under any wildlife or conservation designation. Furthermore, no rare, threatened or legally protected species are known to occur on the site.

The following mitigation measures will be incorporated and adhered to during the construction phase of the proposed development to ensure that the works do not result in contravention of wildlife legislation:

1. The recommendations as given in the accompanying Bat Survey report prepared by Flynn Furney Environmental Consultants (2022) are to be followed. During the period October to April inclusive, a pre-works internal survey is required, and demolition works involving the roofs must supervised

[1] Flood Zone C means an area where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

by an ecologist. If bats are confirmed, works cannot proceed until an NPWS derogation licence is obtained.
2. It is recommended that an ecologist has input into the external lighting plan for the future development to ensure the correct positioning and models of lighting columns are installed and the habitats around the development are not impacted by light overspill.
3. In order to avoid any impacts to bird species, it is recommended that no vegetation should be cleared within the site during the bird nesting season (March-August inclusive) in order to protect nesting birds. It is also recommended that the buildings must be surveyed for the presence of any nesting bird species prior to commencement of any site clearance, demolition or construction activity on this site
4. All activities will comply with all relevant legislation and best practice to reduce any potential environmental impacts. The mitigation measures detailed within this EcIA will be fully adhered to; and
5. The Site manager shall ensure that all personnel working on-site are trained and aware of the mitigation measures detailed within the EcIA.

The Ecological Impact Assessment concludes that the mitigation measures once fully implemented will minimise any potential for ecological impacts.

On the basis of the foregoing, and with regard to the evidence set out within the Ecological Impact Assessment and AA Screening Report the potential effects on local biodiversity and ecology are ***neutral***, ***imperceptible,*** and ***short term*** for the construction phase.

Having regard to the foregoing, the effect of biodiversity impacts arising from the proposed development during the construction phase is ***not significant***.

5.3.2 Operational Phase

The accompanying Ecological Impact Assessment and AA Screening Report by Flynn Furney Environmental Consultants has assessed the potential for significant impacts of the operational phases of the proposed development on Natura 2000 sites and habitat loss/alteration, habitat/species fragmentation, disturbance and/or displacement of species, change in population density and changes in water quality.

The development during operation is considered to enhance the biodiversity in the area due to the introduction of a high quality landscaping and planting scheme which will create habitats, as noted by the accompanying drawings and rationale prepared by Studio Aula. In this regard, biodiversity is not likely to be significantly affected by the proposed development.

The following mitigation measures will be incorporated and adhered to during the operational phase of the proposed development to ensure that the works do not result in contravention of wildlife legislation:

1. The recommendations as given in the accompanying Bat Survey report prepared by Flynn Furney Environmental Consultants (2022) are to be followed. During the period October to April inclusive, a pre-works internal survey is required, and demolition works involving the roofs must supervised by an ecologist. If bats are confirmed, works cannot proceed until an NPWS derogation licence is obtained.
2. It is recommended that an ecologist has input into the external lighting plan for the future development to ensure the correct positioning and models of lighting

columns are installed and the habitats around the development are not impacted by light overspill.
3. In order to avoid any impacts to bird species, it is recommended that no vegetation should be cleared within the site during the bird nesting season (March-August inclusive) in order to protect nesting birds.
4. All activities will comply with all relevant legislation and best practice to reduce any potential environmental impacts. The mitigation measures detailed within this EcIA will be fully adhered to; and
5. The Site manager shall ensure that all personnel working on-site are trained and aware of the mitigation measures detailed within the EcIA

The Ecological Impact Assessment concludes that the mitigation measures once fully implemented will minimise any potential for ecological impacts.

On the basis of the above with regard to the evidence set out within the Ecological Impact Assessment, Bat Survey report and AA Screening Report, the potential effects on local biodiversity and ecology are ***neutral***, ***slight,*** and ***long-term*** for the operational phase.

Having regard to the foregoing, the effect of biodiversity impacts arising from the proposed development during the operational phase is ***not significant***.

5.4 AIR QUALITY AND CLIMATE

5.4.1 Construction Phase

Construction stage traffic and embodied energy of construction materials are expected to be the dominant source of greenhouse gas emissions as a result of the construction phase of the development. Construction vehicles, generators etc., may give rise to some CO_2 and N_2O emissions. However, due to short-term nature of these works, the impact on climate will be ***not significant***, and ***short term***..

Nevertheless, some site-specific mitigation measures can be implemented during the construction phase of the proposed development to ensure emissions are reduced further. In particular the prevention of on-site or delivery vehicles from leaving engines idling, even over short periods. Minimising waste of materials due to poor timing or over ordering on site will aid to minimise the embodied carbon footprint of the site.

The greatest potential impact on air quality during the construction phase of the proposed development is from construction dust emissions and the potential for nuisance dust and PM10/PM2.5 emissions. While construction dust tends to be deposited within 350 m of a construction site, the majority of the deposition occurs within the first 50 m based on Transport Infrastructure Ireland (TII) guidance (2011).

The scheme has potential for dust impacts during construction due to the separation distance between the site and the nearest sensitive receptors, which are located approximately 20-30 metres to the east and south of the site. Therefore, during construction, there is potential for dust impacts on these sensitive receptors which would be considered in the absence of mitigation ***negative, significant*** and ***short-term.***

The pro-active control of fugitive dust will ensure the prevention of significant emissions, rather than an inefficient attempt to control them once they have been released. The main contractor will be responsible for the coordination, implementation and ongoing monitoring of the Dust Management Plan. The key aspects of controlling dust are listed below. These measures incorporated the Construction Environmental Management Plan (CEMP) prepared for the site.

In summary the measures which will be implemented will include:

- During very dry periods when dust generation is likely, construction areas will be sprayed with water.
- Exhaust emissions from vehicles operating within the site, including trucks, excavators, diesel generators or other plant equipment, will be controlled by the contractor through regular servicing of machinery.
- Vehicle speeds will be limited in the construction site.
- Surrounding roads used by trucks to access to and egress from the site will be cleaned regularly using an approved mechanical road sweeper. Roads will be cleaned subject to local authority requirements. Site roads will be cleaned on a daily basis, or more regularly, as required.
- Wheel-wash facilities will be provided to remove excess mud from wheels. These facilities will be located at the exit from the site and away from sensitive receptors, where possible.
- The technique adopted for all works shall minimise the release of dust into the atmosphere.
- Daily visual inspections will be carried out at locations around the site boundary as required.
- These inspections will monitor the effectiveness of dust mitigation measures.

At all times, these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust would be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.

During construction, the proposed development will give rise to dust in the short term. Mitigation measures proposed in the accompanying construction management plan will ensure dust suppression techniques so as to remain within acceptable levels. These include road sweeping, wheels washing and covered vehicles.

The residual effects on air quality and climate will be***, moderate, negative and short term*** during the construction phase***.***

Having regard to the foregoing, the effect of air quality and climate impacts arising from the proposed development during the construction phase is ***not significant***.

5.4.2 Operational Phase

In relation to the operational phase of the proposed development, the proposed development will not result in any significant emissions of air quality pollutants or greenhouse gases once operational. Therefore, the potential impact to air quality from the operational phase of the proposed development is expected to be imperceptible. Therefore, no site specific mitigation measures are required.

Current EPA guidance states that a development may have an influence on global climate where it represents “a significant proportion of the national contribution to greenhouse gases” (EPA, 2003). The draft “*Guidelines On The Information To Be*

Contained In Environmental Impact Assessment Reports" (2022) states that impacts relevant to adaptation to climate change should be assessed and that projects should be assessed in terms of their vulnerability to climate change Therefore, the impact to climate from the operational phase of the proposed Project is expected to be imperceptible in terms of national CO_2 emissions and Ireland's agreed limit under the Kyoto Protocol (Framework Convention on Climate Change, 1997, 1999) and the EU Effort Sharing Agreement ("20-20-20" Targets). The proposed Project will not result in any impacts relevant to adaptation therefore the project will not be vulnerable to climate change.

On the basis of the above the potential effects on Air Quality are ***neutral***, ***imperceptible,*** and ***long term*** for the operational phase. Therefore, the residual impact of the proposed Project on ambient air quality is deemed to be ***imperceptible***.

Having regard to the foregoing, the effect of air quality and climate impacts arising from the proposed development during the operational phase is ***not significant***.

5.5 NOISE AND VIBRATION

5.5.1 Construction Phase

During the construction phase it is expected that there will be some temporary impact on the nearest residential properties and Sally Park House/Nursing Home due to noise emissions from the plant equipment required for construction. The magnitude of noise generated will be dependent on a number of factors including the proximity of noise sensitive receptors, construction methods employed, the selection of plant and the construction programming. A variety of items of construction methods and plant items will be required during the various phases of the construction project. Noise will be generated primarily from the onsite construction activity however noise can be generated during haulage of construction and waste materials to and from site.

The potential for noise and vibration effects in the absence of mitigation on the can be characterised as ***negative***, ***moderate to significant***, and ***short term*** for the construction phase.

There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project.

The application of avoidance measures, such as binding hours of construction, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact will not be excessively intrusive. Any impacts will be short term in duration for the construction phase. The CEMP sets out minimisation measures to ensure nuisance noise arising from demolition, site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development.

The relevant mitigation measures are set out in the CEMP including:

- Hours will be limited during which noisy site activities are permitted.
- Channels of communication will be established between the Contractor/Developer, Local Authority and Residents.
- A Site Representative will be appointed responsible for matters relating to noise.

- Typical levels of noise will be monitored during critical periods and at sensitive locations.
- Plant will be selected with low inherent potential for the generation of noise.
- All site roads will be kept even so as to mitigate the potential for vibration from lorries.
- Barriers will be erected as necessary around items such as generators or heavy duty compressors.
- Noisy plant will be sited as far away from sensitive properties as permitted by site constraints.
- Engines, vehicles and equipment will be switched off when not in use.
- Significant sources of noise will be enclosed.
- Plant will be used and serviced regularly in accordance with manufacturer's instructions.
- Cranes will be shut down during work periods / throttled to minimum when not in use.
- Machinery having rotating parts will be serviced according to supplier recommendations to prevent friction induced sound.
- Materials should be lowered, not dropped, insofar as practicable and safe.

All personnel must be made aware that noisy construction activities resulting in significant noise levels must be minimised and made aware of the above control measures. During the construction stage the following codes and regulations will be adhered to:

- BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites, Part 1 and Part 2;
- SHWW (General Application) Regulations 2007 – 2016, Part 5 Noise and Vibration

Noise and vibration effects on the environment following the implementation of standard construction mitigation measures, as set out in the CEMP, the residual impact can be characterised as ***negative***, ***slight to moderate,*** and ***short term*** for the construction phase.

Having regard to the foregoing, the effect of noise and vibration impacts arising from the proposed development during the construction phase is ***not significant***.

5.5.2 Operational Phase

The operation of the proposed development will remain consistent with the type of activity and buildings the vicinity of the proposed development site. A range of mechanical plant items will be required to service the development. While the specific details of the plant items would normally be confirmed at the detail design stage of a project, typically for residential and commercial developments, there will be a requirement to provide mechanical plant for ventilation, heating and cooling purposes. Mechanical plant serving these purposes may include air handling units, chillers, condensers, boilers and fans of various types and sizes. Whilst there is potential for these plant items to generate moderate to significant noise levels, mitigation at the design stage can effectively eliminate potential noise impacts associated with these plant items.

The best practice method for measuring and assessing building services plant noise emissions is outlined in the British Standard BS4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound. BS4142:2014+A1:2019 describes methods for rating and assessing sound of an industrial and/or commercial

nature. The methods described in this British Standard use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident.

It will be necessary that the cumulative noise levels from all plant associated with the proposed development be specified and designed to ensure that specific plant noise levels do not exceed 10 dB above the prevailing background noise levels at the nearest noise sensitive location, as well as any additional measures required pursuant to planning conditions which may be imposed. In addition, due care should be taken to ensure that the selected mechanical plant does not generate any potential tonal or impulsive noise.

The proposed development will give rise to additional road traffic on public roads., additional traffic from residential developments can give rise to slight to moderate impacts in respect of noise.

The residual effects on noise and vibration are ***neutral***, ***imperceptible***, and ***long term*** for the operational phase.

Having regard to the foregoing, the effect of noise and vibration impacts arising from the proposed development during the operational phase is ***not significant***.

5.6 LANDSCAPE AND VISUAL IMPACT

5.6.1 Construction Phase

The change of use of the site from its existing use to that of a construction site, i.e. the clearance of the site and the construction of the buildings, will give rise to short term and substantially localised effects on landscape character. This effect will be seen through the introduction of new structures, machinery, ancillary works, associated hoarding, scaffolding and cranes etc.

Measures will be undertaken to mitigate any potentially adverse construction-related effects on immediately adjoining neighbours, particularly on the residents of the existing Mount Carmel Park. Operation of a well-managed organised and planned construction site, with adequate control of construction traffic and working activity, will be undertaken which is key to avoiding and minimising impact. A full list of mitigation measures for the construction phase can be found in the Visual Impact Assessment (VIA) prepared by Doyle + O'Troithigh Landscape Architects (2022).

The VIA has undertaken and assessment of the potential impact during the construction phase from 12 representative photomontage view location that have been prepared by Digital Dimensions. With reference to the VIA prepared by Doyle + O'Troithigh Landscape Architects this demonstrates that the residual impact on landscape and visual impact during construction will be ***short term*** and will be ***slight to moderate*** and ***negative***. There is no likelihood of significant effects on the environment arising from the proposed development in respect of landscape and visual impacts during the construction phase.

5.6.2 Operational Phase

The initial impact of the built development on the landscape character would be perceived as negative in the short-term due to the change in type from a 2-storey to a 3-5 storey to a built development. The proposed development is consistent with the land use zoning designation and with the wider residential setting. In keeping with this

context the proposed development, while having slight to moderate effects, can be successfully integrated and absorbed into the landscape and townscape and will not give rise to any significant landscape and visual effects. The design and layout of the proposed development is appropriate in terms of the existing site character, zoning and context. Once the development is completed, consistent and effective maintenance of hard and soft landscape areas, (in particular entrance areas, open space area and walkways) together with quality site and building management are key to avoiding or minimising negative landscape and visual impacts arising from the operation of the proposed development given the location of the site to the south of the Dodder Valley Park.

The VIA has undertaken and assessment of the potential impact during the construction phase from 12 representative photomontage view location that have been prepared by Digital Dimensions. With reference to the VIA prepared by Doyle + O'Troithigh Landscape Architects (2022) this demonstrates that the residual impact on landscape and visual impact during construction will be ***long term***, and range from ***imperceptible to moderate*** and ***negative to neutral***. There is no likelihood of significant effects on the environment arising from the proposed development in respect of landscape and visual impacts during the operational phase.

5.7 CULTURAL HERITAGE, AND ARCHAEOLOGY

5.7.1 Construction Phase

A review of the Heritage Council's online database (https://heritagemaps.ie/) determined that there are no recorded archaeological sites or monuments within the proposed development lands. In addition, a review of the South Dublin County Council Development Plan 2016-2022 and Draft SDCC Development Plan 2022 – 2028 confirms that there are no protected structures within the proposed development lands.

An Archaeology Impact Assessment and Method Statement has been prepared by Archaeology & Heritage Consultancy Limited (2022).

The proposed development area falls within the Zone of Archaeological Potential associated with Sally Park House (DU022-103----) as recorded on the Record of Monuments and Places.

However, as the site is recorded as '*House - 18th/19th century'* on the Sites and Monuments Record, the possibility of any physical elements of the RMP site extending into the proposed development area are negligible.

Any impacts on Sally Park House are therefore deemed to be indirect, in the form of impacts on the visual amenity.

There are no known archaeological sites within the red line boundary of the development. However, the townland boundary which runs along the northern side of the site, is noteworthy. It takes the form of a well-constructed and well-maintained rubble and cement built wall.

See Archaeology Impact Assessment and Method Statement prepared by Archaeology & Heritage Consultancy Limited (2022) for further detail.

The Archaeological Method Statement Section 8 recommends that a Level 2 Archaeological Survey be undertaken to record the 'Smithy' building, prior to its removal. Furthermore, it is anticipated that a condition on grant of permission would

require that the applicant engage the services of a fully licenced archaeologist to coordinate and implement the Archaeological Method Statement in consultation with the National Monuments Service. A method statement for the proposed works arising from the on-going additional archaeological testing will be agreed with the National Monuments Service, Department of the Culture, Heritage and the Gaeltacht in advance of the commencement of construction work.

Refer to the Archaeological Impact Assessment and Method Statement prepared by Archaeology & Heritage Consultancy Limited (2021) for more information procedures in the instance of the discovery of archaeological remains.

As the site has been previously developed it is unlikely that the proposed development will uncover potential as yet unknown sub-surface archaeological features on the site.

While it is acknowledged that the proposed development works have the potential to have ***direct, negative*** and ***profound impacts*** on unknown sub-surface features. The implementation of the Archaeological Method Statement would mean that the residual impacts to Archaeology and Cultural Heritage would be ***neutral, imperceptible*** and ***long term.***

Having regard to the foregoing, the effect of culture, heritage and archaeology impacts arising from the proposed development during the construction phase is ***not significant***.

5.7.2 Operational Phase

The operational phase of the proposed development is not predicted to have any impact on archaeological, architectural and cultural heritage.

In this regard any impacts upon cultural heritage and archaeological are considered to be ***neutral, imperceptible*** and ***long term*** in nature.

Having regard to the foregoing, the effect on culture, heritage and archaeology arising from the proposed development during the operational phase is ***not significant***.

5.8 TRAFFIC AND TRANSPORTATION

5.8.1 Construction Phase

During the construction phase of the proposed development, there will be additional traffic movements to/from the site from construction personnel, security staff, professional staff (i.e. design team, utility companies), excavation plant, dumper trucks and deliveries/removal of materials (waste/spoil).

In order to transport construction material to the site in the most efficient and environmentally sensitive manner appropriate routes need to be identified. Having considered the site location it is proposed that the most appropriate route to the site for material and plant delivery will be via Junction 12 off the M50 which serves both Northbound and Southbound traffic. From Junction 12 along the Killininny Road and north along the Ballycullen Road will be the most direct for all deliveries including Oversized (under specific licence), which is an overall distance of 1.7 kilometres.

The frequency of vehicles accessing the site will vary throughout the construction phase. A site-specific construction traffic management plan incorporating the mitigation measures set out under the CEMP will be prepared by the contractor and submitted to

the planning authority prior to the commencement of construction. After the implementation of mitigation measures the potential impact on Traffic and Transportation are ***negative*** and ***short term*** for the construction phase.

Having regard to the foregoing, the effect of traffic and transportation impacts arising from the proposed development during the construction phase is ***not significant***.

5.8.2 Operational Phase

The proposed scheme will see an increased level of traffic coming to and from the site when compared to the existing situation.

Traffic and Transport Assessment (Transport Insights, 2021), Traffic and Transport Assessment (Transport Insights, 2021) have undertaken an assessment of operational traffic flows from the proposed development. This concluded (Section 7 of the Traffic and Transport Assessment) that the percentage change in traffic through the assessed junctions due to traffic generated by the proposed development during both peak hours in the development's assumed year of opening is projected to result in:

- an increase of 4.0% through the 3-arm Site Access Firhouse Road junction in both the AM and PM peak hours; and
- an increase of 1.3% and 1.2% through the 4-arm Firhouse Road/ Ballycullen Road/ Mount Carmel Park signalised junction in the AM and PM peak hours respectively.

The Traffic and Transport Assessment states that due to the low additional traffic generated at both junctions assessed, i.e. no more than 4% additional traffic in any assessment year, more detailed analysis in the form of traffic modelling has not been deemed necessary in support of the proposed development.

A set of modal share targets have been established for the Residential Travel Plan (RTP), with an Action Plan subsequently developed for the proposed development with a view to meeting these targets and facilitating and incentivizing sustainable mobility choices among future residents. The RTP implementation will be continually overseen and managed by an appointed Travel Plan Coordinator (TPC), with a range of proposed measures to support cycling, walking and public transport. The Framework RTP is complemented by a Car Parking Management Plan, which is set out in Section 9 of the Traffic and Transport Assessment (Transport Insights, 2021), setting out the proposed car parking allocation rules, monitoring and enforcement protocols.

The requirements on the current infrastructure are considered to be consistent with the site's zoning objective and the proportionate proposed bicycle parking provision will ensure sustainable modes of transport are promoted.

On the basis of the above the potential effects on Traffic and Transportation are considered to be ***negative***, ***moderate***, and ***long term*** for the operational phase.

Having regard to the foregoing, the effect of traffic and transportation impacts arising from the proposed development during the operational phase is ***not significant***.

5.9 MATERIAL ASSETS, INCLUDING WASTE MANAGEMENT

5.9.1 Construction Phase

Utilities: Foul Sewer, Stormwater and Potable Water

The proposed development will have an impact upon other material assets such as 'built services and infrastructure' (set out in the EPA Guidelines 2022) such as electricity, telecommunications, gas and water supply.

Welfare facilities (canteens, toilets etc.) will be available within the construction compound and this will remain in place for the construction of the proposed development. The offices and site amenities will initially need to have their own power supply (generator), water deliveries and foul water collection until connections are made to the mains networks.

Electrical connections will be made by suitably qualified personnel following consultation with the relevant authorities and will be cognisant of subsequent construction works. High voltage connections will be established for heavy duty equipment and site facilities, as required. All electrical works, including connection to the ESB network will be carried out by a suitably qualified contractor. The power and electrical supply requirements during construction are relatively minor, and there is no potential impact anticipated on existing users.

Water supply required for welfare facilities, dust suppression and general construction activities will be sourced from the existing public piped supplies running into the site. Although before connections are established to the water supply it may need to be trucked onto site. As with electrical works, this will be carried out by a suitably qualified contractor. It will be necessary to service the site with a reliable and safe water supply.

Site welfare facilities will be established to provide sanitary facilities for construction workers on site. The main contractor will ensure that sufficient facilities are available at all times to accommodate the number of employees on site. Foul water from the offices and welfare facilities on the site will discharge into the existing sewer on site (the cabins may initially need to have the foul water collected by a licensed waste sewerage contractor before connection to the sewer line can be made).

In respect of the foregoing, the predicted impacts upon foul sewer, stormwater and potable water are considered to be ***neutral, imperceptible*** and ***short term*** in nature.

Waste and Waste Management

There will be some waste materials produced in the construction of the proposed scheme which will be disposed of using licensed waste disposal facilities and contractors (See Section 3.5). The scale of the waste production in conjunction with the use of licensed waste disposal facilities and contractors does not cause concern for likely significant effects on the environment.

The accompanying CWMP prepared by PHM Consulting details the methodologies employed for the control, management, monitoring and disposal of waste from the site. The plan sets out the measures used is to maximise the quantity of waste recycled by providing sufficient waste recycling infrastructure, waste reduction initiatives and waste collection and waste management information to the residents of the development.

Other than waste generated from materials necessary for the construction of the building the proposed development will not produce significant volumes of waste.

All waste arising during the construction phase will be managed and disposed of in a way that ensures the provisions of the Waste Management Act 1996 as amended and associated amendments and regulations and the Waste Management Plan. In the event, there is excess material with no defined purpose, it will be transported to an

authorised soil recovery site or notified to the EPA as a by-product when it will be beneficially used.

Waste during construction will be managed in accordance with a project specific Resource and Waste Management Plan, as well as any subsequent planning conditions.

It is considered that the proposed development will not have any significant impact in terms of resources or waste generation.

A carefully planned approach to waste management as set out in Section 3.5 will ensure that the impact on the environment will be ***short-term, neutral*** and ***imperceptible***.

Having regard to the foregoing, the effect of material assets impacts arising from the proposed development during the construction phase is ***not significant***.

5.9.2 Operational Phase

Utilities: Foul Sewer, Stormwater and Potable Water

The proposed development will have an impact upon other material assets such as 'built services and infrastructure' (set out in the EPA Guidelines 2022) such as electricity, telecommunications, gas and water supply. The likely impact is considered to be consistent with the site's zoning objective as set out in the South Dublin County Council Development Plan 2016-2022 and is typical of a development at an urban location.

A Pre-Connection Enquiry (reference CDS20006237) was submitted to Irish Water to determine the feasibility of connecting to the public water supply and drainage infrastructure. A response was received from Irish Water on January 28th, 2021 confirming feasibility without the need for infrastructure upgrades by Irish Water. Further information is set out in the accompanying Water Services Report (PHM Consulting, 2021a).

The proposal will have an impact on servicing and utilities infrastructure in the area, requiring connections to water, electricity, and gas supplies, as well as connecting to the existing road network. Due to the brownfield nature of the site, the development is well placed to benefit from in-situ infrastructure provision and will therefore constitute a sustainable use at the location. Further information is set out in the accompanying Water Services Report (PHM Consulting, 2021a).

Water supply and wastewater will be provided via the existing public mains network adjacent to the site. The disposal of foul water from the site will be separated from that of surface water.

In respect of the foregoing, the predicted impacts upon foul sewer, stormwater and potable water are considered to be ***neutral, imperceptible*** and ***long term*** in nature.

Waste and Waste Management

The proposed development will give rise to a variety of waste streams during the operational phase, i.e., when the project is completed, and fully operational. The majority of waste will be generated by the residents living in the apartment blocks and the commercial tenants during the fully operational stage.

An Operational Waste Management Plan has been prepared by OCSC Consulting Engineers, which will outline measures to maximise the quantity of waste recycled by providing sufficient waste recycling infrastructure, waste reduction initiatives and waste collection and waste management information to the residents and tenants of the development.

During the operational phase, a structured approach to waste management as set out will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of waste prevention, reuse, recycling and recovery is achieved, the predicted impact of the operational phase on the environment will be ***long-term, neutral*** and ***imperceptible***.

Conclusion

There are no likely significant environmental effects in terms of the material assets, for the proposed development and considering the existing environment and proposed future environment which would warrant preparation of an EIA.

Having regard to the foregoing, the effect of material assets impacts arising from the proposed development during the operational phase is ***not significant***.

5.10 POTENTIAL IMPACTS FROM INTERACTIONS

This section discusses the potential interactions and inter-relationships between the environmental factors discussed in the preceding sections. This section covers both the construction and operational phase of the proposed development.

In accordance with the guidance not only are the individual significant impacts required to be considered when assessing the impact of a development on the environment, but so must the interrelationships between these factors be identified and assessed.

The majority of the interactions that are considered to have a neutral effect (i.e., no effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error).

There is a potential interaction between land, soil geology, hydrogeology and hydrology through poorly managed surface water run-off during the construction phase of the proposed development.

There is a potential for interactions between air quality during construction activities on human health and biodiversity via dust generation. There is a potential for interactions between noise and vibration during construction activities on human health.

However, these potential interactions are short-term and associated with the construction phase. The CEMP has outlined minimisation measures to ensure that pollution and nuisances arising from demolition, site clearance and construction activities is prevented where possible and managed in accordance with best practice and any subsequent planning conditions relevant to the proposed development.

Having regard to the foregoing, the effect of potential impacts from interactions arising from the proposed development during the construction phase is ***not significant***.

It is considered that there will be no likely significant interactions which require preparation of an EIAR.

5.11 POTENTIAL CUMULATIVE IMPACTS

As part of the assessment of the proposed development, the likelihood of potential cumulative impact of the proposed development has been considered with any future development (as far as practically possible) and the cumulative impacts with developments in the locality (including planned and permitted developments).

The National Planning Application Map was consulted for the previous 5 years to identify notable applications (proposed development), or applications granted permission (permitted development) within that period within 500 m of the development site. The National Planning Application Map includes planning application data sourced from the 31 individual local authorities across Ireland. This list of consented development is shown in Appendix A at the end of this report. The review of the online planning tool noted a large number of insignificant small extensions, changes of use, retention and other minor alterations in the vicinity of the proposed development. These proposed and consented development have been, where relevant, considered as a part of the overall project impact.

Cumulative impacts are those impacts that relate to incremental / additive impacts of the planned development in addition to historical, present or foreseeable future actions. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

Mitigation is included in the project design to minimise impacts on the receiving environment. Each project currently permitted in the wider area is subject to planning conditions which include appropriate mitigation measures to minimise environmental impacts. Provided that mitigation measures for other developments are implemented as permitted, there will be no significant cumulative effects.

Any future development will be required to incorporate appropriate mitigation measures (e.g. noise management, dust management, traffic management, management of water quality in run-off water, landscape, etc) during the construction phase as such any cumulative development will not have a significant effect on human health, material assets, land, soils, geology, hydrogeology, and hydrology.

Any future development proposed on the surrounding lands should be cognisant with the zoning and will be subject to EIA and/or planning conditions which include appropriate mitigation measures to minimise environmental impacts.

Having regard to the foregoing, the effect of potential cumulative impacts arising from the proposed development and the surrounding developments being constructed concurrently is ***not significant***.

Based on the assessment of the environmental sensitivities in the existing environment and consideration of potential cumulative impacts, it is concluded that there are no likely cumulative environmental impacts which would warrant preparation of an EIA.

6.0 FINDINGS AND CONCLUSIONS

The purpose of this EIA Screening Report has been to consider whether there is a requirement for the preparation of an Environmental Impact Assessment Report (EIAR) to accompany the Strategic Housing Development application to An Bord

Pleanála (ABP), and to provide ABP with the information required under Schedule 7A of the Planning and Development Regulations 2001, as amended, to enable the Board to determine in light of the criteria set out under Schedule 7 of those regulations whether the proposed development is likely to have significant effects on the environment. If the Board determines that the proposed development is not likely to have significant effects on the environment, the request can be determined without an Environmental Impact Assessment Report (EIAR) having been submitted.

The proposed development and component parts have been considered against the thresholds outlined in Schedule 5, Part 2 Class 10 (a) to (m). The most relevant project type in the context of the proposed development is Class 10 (b) (i) and (iv);

10. Infrastructure projects

(b) (i) Construction of more than 500 dwelling units

(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.

On the basis of the evaluation set out in Section 2.0 an EIA for the proposed Project is not mandatory. The proposed project is considered to be a sub-threshold development and therefore, the Board is required to assess whether the proposed development is likely to have significant effects on the environment in order to determine whether the submission of an EIAR is required. The information necessary to enable this screening assessment has been provided in this report and the methodology used has been informed by the available guidance, legislation and directives.

It is concluded having regard to the nature, scale and location of the subject site, that there is no likelihood of significant effects as a result of the proposed development on the environment (direct, indirect or cumulatively with other development) and therefore it is considered that an environmental impact assessment report is not required in this instance.

AWN has considered the proposed development and assessed the potential for significant environmental effects and the need for an EIAR is documented Sections 3.0, 4.0 and 5.0. It is considered that:

- Compliance with the CEMP will prevent potential short-term nuisances (such as dust, noise and vibration, and traffic) and risks from the storage of any hazardous substances (fuels, chemicals and other construction materials that may pose a risk to the environment). These measures associated with the construction phase are best practice measures, and are in no way included to avoid or reduce any potential harmful effects to any European sites.
- Compliance with the accompanying Construction Waste Management Plan prepared by PHM Consulting, will ensure best practice methodologies employed for the control, management, monitoring and disposal of waste from the site.
- The proposed drainage and flood risk strategy will contribute to improved retention of surface water on site and controlled discharge. The SuDS features associated with the proposed development are not included within the design to avoid or reduce any potential harmful effects to any European sites.
- The AA Screening concluded that activities associated with the Proposed Development either alone, or in-combination with other projects or land uses, will not have any direct or indirect adverse effects on the conservation objectives of any Natura 2000 European Designated sites.

The site makes optimum and sustainable use of a brownfield site adjacent to other residential uses and will use existing servicing provision as well as being directly adjacent to high frequency public transport links and will have a neutral long term impact on material assets.

AWN has concluded that there are no likely significant effects on the environment for the proposed development, so the preparation of an EIAR is not required. A mandatory EIAR is not required for the proposed development, and as there is no likelihood of significant effects on the environment. It is submitted by AWN that there is not a requirement for an EIAR to be submitted with this planning application.

As required by Regulation 299B(1)(b)(ii)(II)(C), the available results of other relevant assessments of the effects on the environment carried out pursuant to European Union legislation other than the Environmental Impact Assessment Directive have been taken into account within this EIA Screening Report. A standalone Regulation 299B(1)(b)(ii)(II)(C) Statement has been provided as part of this application.

7.0 REFERENCES

Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report, European Commission, 2017 http://ec.europa.eu/environment/eia/eia-support.htm

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

Guidelines for Planning Authorities and An Bord Pleanala on carrying out Environmental Impact Assessment. Department of Housing, Planning and Local Government. DHPLG: 2018.

Water Services Report for Firhouse Inn Strategic Housing Development Firhouse Road, Dublin 24. PHM Consulting. 2021a.

Construction Environmental Management Plan - Firhouse Inn Strategic Housing Development Firhouse Road, Dublin 24. PHM Consulting. 2021b.

Construction Waste Management Plan - Firhouse Inn Strategic Housing Development Firhouse Road, Dublin 24. PHM Consulting. 2021c.

Bat survey of Firhouse Inn and adjacent buildings, Dublin 24. Flynn Furney Environmental Consultants. 2022a.

Firhouse Inn Development: Ecological Impact Assessment Report. Flynn Furney Environmental Consultants. 2021b.

Screening for Appropiate Assessment Firhouse Inn Redevelopment. Furney Environmental Consultants. 2021c.

Archaeological Impact assessment and method statement for a proposed SHD development at The Firhouse Inn, Firhouse Road Dublin 24. Archaeology and Heritage Consultancy Ltd. 2021.

Operational Waste Management Plan Firhouse, Firhouse Road, Dublin 24. O'Connor Sutton Cronin (OSCS). 2021.

Traffic and Transport Assessment. Transport Insights. 2021.

Landscape and Visual Impact Assessment. Doyle + O'Troithigh Landscape Architecture. 2022.

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APPENDIX A - RELEVANT PLANNING HISTORY

Application Number	Development Description	Development Address	Decision	Grant Date
SD20A/0140	Construction of 2 grass playing pitches: pitch No.1 will measure some 145m long by 90m wide and pitch No.2 will measure some 133m long by 80m wide; club facilities including 4 changing rooms measuring 51sq.m each; storage facilities; function rooms; meeting rooms; physiotherapy facilities; kitchen facilities; wc and circulation space; site works include removal of existing hedgerows and trees; replanting areas; formation of a new pedestrian and vehicular entrance on Firhouse road; 67 car parking spaces; 24 bicycle spaces; perimeter pathway; fencing and attendant landscaping works.	Lands adjacent to Carmel of the Assumption Convent, Firhouse Road, Firhouse, Dublin 24	GRANT PERMISSION	08/06/2021
SD16A/0444	Retention of change of use of 2 storey family flat granted under S01A/0574 to a separate dwelling and permission for works to front garden	8, Brookmount Lawns, Tallaght, Dublin 24	GRANT PERMISSION & GRANT RETENTION	21/02/2017
SD19B/0164	Construction of a double storey extension to the rear; internal alterations; vehicular entrance.	19, Mount Carmel Park, Firhouse, Dublin 24	GRANT PERMISSION	14/06/2019
SD21B/0217	Ground & first floor extension at rear to replace single storey structure plus attic conversion into non-habitable space along with porch extension to front	10, Mount Carmel Park, Dublin 24	GRANT PERMISSION	09/06/2021
SD17A/0279	Demolition of existing garage and construction of semi-detached two-storey, three bedroom dwelling house with new vehicular entrance and associated landscaping, boundary and site development works.	Side of 1, Mount Carmel Park, Knocklyon, Dublin 24, D24 E9T4	GRANT PERMISSION	14/02/2018
SD20B/0120	Retention permission for a single storey extension to rear of existing house (Protected Structure).	14, Homeville Court, Ballycullen Road, Dublin 16	GRANT PERMISSION FOR RETENTION	16/07/2020
SD18B/0452	Demolition of rear conservatory and chimney and construction of a 2 storey rear extension with flat roof over; alterations to porch door and side windows; window in gable wall at first floor; internal alterations at ground floor and first floor and associated site works.	The Beeches, Firhouse Road, Knocklyon, Dublin 16.	GRANT PERMISSION	19/12/2018
SD13B/0055/EP	Demolition of existing single storey garage to the side (12sq.m); construction of a new two storey extension to the side with a rooflight and construction of a new single storey extension to the rear with rooflights (totalling 62sq.m).	34, Delaford Park, Dublin 16	GRANT PERMISSION OF DURATION OF PERMISSION	26/7/2018

SD18A/0372	(a) 3 storey permanent primary school building containing 16 en-suite classrooms, 1 general purpose room, 1 library/resource room, 1 multi-purpose room, 3 special education tuition rooms, all associated staff and pupil ancillary accommodation/facilities, roof garden, PV solar panels on the south facing pitched roofs and external building signage; (b) 2 ball courts with associated perimeter fencing; (c) junior play areas; (d) car parking for staff and visitors; (e) formation of a drop off bay for 10 cars, relocation of pedestrian crossing and provision for new pedestrian crossing, all on the Knocklyon Road; (f) realignment of access road and junction from Knocklyon Road including provision for new and realigned footpaths including shared cycle/pedestrian paths to both north and south of the junction; (g) all associated site works including boundary walls/fencing with signage, entrance gates, connection to public storm drainage via an attenuation system, connection to public foul drainage at Delaford Ave, public lighting, bike shelter, landscaping and temporary site compound.	Gaelscoil Chnoc Liamhna, Knocklyon Road, Dublin 16.	GRANT PERMISSION	5/12/2018
SD21B/0154	Proposed ground floor side extension with pitched roof over with 2 roof lights.	2, Old Knocklyon Road, Knocklyon, Dublin 16	GRANT PERMISSION	15/6/2021
SD17B/0316	New detached single storey structure located to the rear of the existing rear garden and to be used as a utility/dry room area, gym/recreation area with a toilet/shower room, external finishes to match existing and associated site works.	11 Monalea Park, Firhouse, Dublin 24.	GRANT PERMISSION	2/11/2017
SD18B/0405	Extend the existing concrete ridge tiles & roof tiles to form a new 'Dutch' type roof structure, extend side structure up to new soffit level with two additional windows in the existing gable wall, dormer roof structure to the existing rear tiled roof with attic conversion, internal alterations, front porch, single storey extension to the rear of the dwelling, external finishes to match existing and associated site works.	39, Monalea Park, Dublin 24	GRANT PERMISSION	21/11/2018
SD20A/0294	Room extension at the western end of the main school building. The works will involve the demolition and removal of the existing prefabricated Resource Room structure.	Scoil Carmel Junior National School, Firhouse Road, Dublin 24	GRANT PERMISSION	18/1/2021
SD19A/0106	Demolition of 42sq.m including the entrance lobby, reception area and adjacent office; construction of extension of 140sq.m; fenestration and emergency egress doors; decorative cladding to exterior; logo and signage to facade; minor works associated with interior alterations; the works to the Community Enterprise Hall building include new fenestration and emergency egress doors; decorative cladding to	Bolbrook Enterprise Centre, Avonmore Road, Tallaght, Dublin 24	GRANT PERMISSION	5/9/2019

	exterior; logo and signage to facade; minor works associated with interior alterations; bicycle shelter; hard and soft landscaping and all associated site works.			
SD20A/0323	Amend granted planning permission SD19A/0106 from current tea/coffee station to an artisan coffee shop with an area of 140sq.m encompassing an internal seating and casual meeting area.	Bolbrook Enterprise Centre, Avonmore Road, Tallaght, Dublin 24	GRANT PERMISSION	9/2/2021
SD22A/0058	The installation of a 1.62m high, 0.87 m wide, 0.5m deep above ground natural gas pressure reduction cabinet and an accompanying 3.25m vent stack with all ancillary services and associated site works.	Glenview Lawns, Tallaght, Dublin 24	PERMISSION APPLICATION SUBMITTED	
SD188/0002	Rapid Build Social Housing Development consisting of 16 housing units on undeveloped lands on site located on Old Knocklyon Road [Homeville end], and bounded by Firhouse Road, and the M50 motorway, (site opposite Homeville Court), at Firhouse, Dublin 16. In accordance with the requirements of the above, notice is hereby given that South Dublin County Council proposes: 2 no. 3 bedroom/5 person units - 2 storey; 5 no. 3 bedroom/5 person units - 2 storey; 9 no. 2 bedroom/3 person units - 3 storey Apartment Unit. The works include: New access off Old Knocklyon Road, landscaping works to boundaries and new park/play area, ancillary works to landscape housing areas, and all necessary associated ancillary works on the site and adjacent areas. All units to be minimum A2 BER rated. The housing provision includes two / three storey units grouped in terraces. Plans and particulars of the proposed scheme will be available for inspection or purchased at a fee not exceeding the reasonable cost of making a copy for a period of 6 weeks from Thursday 26th April 2018 during the public opening hours at the offices of South Dublin County Council, County Hall, Tallaght, Dublin 24 and South Dublin County Council, Civic Offices, Clondalkin, Dublin 22 (between the hours of 9:00am – 5:00pm Monday to Thursday and 9.00am - 4.30pm on Friday). Submissions: A submission or observation in relation to the proposed development, dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made, in writing, to the Senior Executive Officer, Housing Department, South	Old Knocklyon Road, Firhouse, Dublin 16	UNREGISTERED APPLICATION	

	Dublin County Council, County Hall, Tallaght, Dublin 24, before 5:00pm Monday to Thursday and before 4:30pm on Friday, on Monday, 25th June 2018. Only submissions received by 5:00pm on Monday the 25th of June and addressed as set out above, will be considered. Submissions and observations can also be made online between the 26th April 2018 and 25th June 2018 (excluding Public Holidays) at https://consult.sdublincoco.ie up to 12.00 Midnight on the 25th June 2018. NOTE: Please make your submission by one medium only. Only submissions received by 25th June 2018 and addressed as set out above, will be considered. Submissions cannot be accepted in any other format or to any other postal address. Submissions and observations should state the name, address, and, where relevant, details of any organisation, community group or company etc. which you represent. Senior Executive Officer, Housing Department, South Dublin County Council, County Hall, Tallaght, Dublin 24. https://consult.sdublincoco.ie/en/consultation/proposed-rapid-build-social-housing-development-consisting-16-housing-units-site			