EIA SCREENING (ENVIRONMENTAL) REPORT

FOR PROPOSED RESIDENTIAL DEVELOPMENT

AT

CARPENTERSTOWN, ROAD, CASTLEKNOCK

On behalf of Glenveagh Homes Ltd.

Prepared by

John Spain Associates
Planning & Development Consultants
Chartered Town Planners & Chartered Surveyors

In conjunction with Enviroguide, OCSC Consulting Engineers, IAC Archaeology, Byrne Environmental, Macroworks.

October 2019
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1.0 INTRODUCTION

1.1 On behalf of the applicant, Glenveagh Homes Limited, Block B, Maynooth Business Campus, Maynooth, Co. Kildare, we hereby submit this Environmental Impact Assessment Screening Report as part of a proposed Strategic Housing Development at lands located at a site at Carpenterstown Road, Castleknock, Co. Dublin.

1.2 In summary, proposed development will consist of the demolition of the existing dwelling and ancillary buildings (c. 1,287 sq. m) and the construction of a residential development of 192 no. apartments (and ancillary facilities including a creche and a gym) in 5 no. 5 storey apartment buildings, comprising 67 no. 1 bedroom apartments, 104 no. 2 bedroom apartments and 21 no. 3 bedroom apartments (all apartments with balconies or terraces), provision of landscaped areas, attenuation and all ancillary site development works, single storey ESB substation, single storey bicycle and bin stores, all on a site of c. 1.77 hectares, located on the Carpenterstown Road, Carpenterstown, Dublin 15.

1.3 This report will accompany the Strategic Housing Development planning application. The possible effect on the environment has been examined through the process of an EIAR Screening which will be detailed below.
2.0 SITE DESCRIPTION

2.1 The subject site is located to the south of Carpenterstown Road, Castleknock, Dublin 15 to the west of the M50 and to the north of Diswellstown, a large residential development. St. Patrick’s school and Diswellstown Community Centre are located to the south west. Castleknock Community College and a small neighbourhood scale retail location is located further to the west. The site area is approximately 1.77 hectares and is currently occupied by a residential property and ancillary buildings. A number of wooded areas exist at the site, primarily orientated on the north-south axis.

2.2 The subject site is surrounding by residential development on all sides and benefits from excellent transport links situated in close proximity to the M50, as well as nearby railway stops at Castleknock and Coolmine. The surrounding area is well served by educational, retail, community and recreational facilities.

Figure 2.1 – Site Location with approximate extent of site outlined in red (Google Maps)

(Source: Google Maps)
3.0 DESCRIPTION OF PROPOSED DEVELOPMENT

3.1 In summary, the proposed development on an overall site of c. 1.77 hectares will comprise a residential development of 192 no. apartments as follows:

Table 3.1 – Overall Dwelling Mix

<table>
<thead>
<tr>
<th></th>
<th>1 bedroom</th>
<th>2 bedroom</th>
<th>3 bedroom</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apartments</td>
<td>67</td>
<td>104</td>
<td>21</td>
<td>192</td>
</tr>
<tr>
<td>Overall Mix</td>
<td>34.8%</td>
<td>53.1%</td>
<td>10.9%</td>
<td></td>
</tr>
</tbody>
</table>

Source: De Blacam & Meagher Architects Schedule of Areas

3.2 The scheme will provide car and bicycle parking across the site as follows.

Table 3.2 – Car Parking and Cycle Parking Provision

<table>
<thead>
<tr>
<th></th>
<th>Car Parking</th>
<th>Cycle Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apartments</td>
<td>79 (surface)</td>
<td>172 (surface)</td>
</tr>
<tr>
<td></td>
<td>113 (basement)</td>
<td>180 (basement)</td>
</tr>
<tr>
<td>Visitor</td>
<td>3 (surface)</td>
<td>(included in the above)</td>
</tr>
<tr>
<td>Creche</td>
<td>45 (basement)</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>240</td>
<td>352</td>
</tr>
</tbody>
</table>

Source: De Blacam & Meagher Architects Schedule of Areas

Landscaping Strategy

3.3 The landscape strategy aims to integrate the new built development with the existing landscape through the retention of a significant number of existing trees on the site and the incorporation of these into a high-quality landscaping scheme. This is detailed within the accompanying Landscape Masterplan and rationale, prepared by Bernard Seymour Landscape Architecture.

3.4 The site layout and landscaping plan seeks to limit the use of the private car on site and prioritise pedestrian and cyclist movement. The internal road layout is limited to the northern perimeter and part of the eastern and western perimeters to provide access to Blocks A and B.

3.5 The focal point of the proposed landscaping scheme is a large central courtyard which is accessed by easily navigable pedestrian routes and provides a range of active and passive recreation. The central space also provides a children’s play area and benefits from passive surveillance from the adjacent residential blocks, creating a sense of place for users.

3.6 The additional tree, shrub and hedgerow planting will consolidate the established setting of the site and reinforce its character, ensuring it integrates appropriately with adjacent land uses. Elevated planting also contributes to visual screening, minimising the appearance of the development when observed from the surrounding area.
Drainage & Infrastructure

3.7 In terms of surface water drainage, the proposed landscaping scheme incorporates SUDS features in the form of swales, green roofs and filter drains. Surface water will be attenuated on site before being discharged at a greenfield rate to the existing surface water sewer on Carpenterstown Road.

3.8 Foul water will also be disposed of to an existing foul water sewer on Carpenterstown Road, adjoining the site to the north. Irish Water have issued a Confirmation of Feasibility which notes that a connection to the existing sewerage network is viable. Water supply is secured from an existing watermain to the north of the site.

3.9 Details of the proposed foul and surface water strategy at the site is detailed within the accompanying Engineering Services Report prepared by OCSC Consulting Engineers.

4.0 EIA SCREENING METHODOLOGY

4.1 LEGISLATION & GUIDANCE

4.1 This EIA Screening exercise has been guided by the following documents:

- Planning and Development Act 2000 (as amended);
- Planning and Development Regulations 2001 (as amended);
- European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018;
- Planning and Development (Housing) and Residential Tenancies Act 2016;
- Directive 2011/92/EU;
- Directive 2014/52/EU;
- Preparation of guidance documents for the implementation of EIA directive (Directive 2011/92/EU as amended by 2014/52/EU) – Annex I to the Final Report (COWI, Milieu; April 2017);
- Guidelines on the information to be contained in Environmental Impact Assessment Reports (draft) (EPA 2017);
- Environmental Impact Assessment – Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018; DoECLG);
- Guidance for Consent Authorities regarding Sub-threshold Development (2003; DoEHLG).

4.2 Using the above documents, it has been possible to carry out a desktop EIAR Screening using the best available guidance while operating within the applicable legislation. It is noted that Directive 2014/52/EU has been transposed into Irish Legislation through the European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018. The methodology employed in this screening exercise is in accordance with the EIA Guidelines published in August 2018 by the DoHPLG and the contents of Schedule 7 and 7A of the Planning and Development Regulations 2018.

4.3 Mitigation measures for the proposed development during the construction phase are set out in the Construction Management Plan and a full description of mitigation measures during the construction and operational phases are contained as Appendix 3 to this report.

4.4 EIAR SCREENING STUDY TEAM AND GUARANTEE OF COMPETENCY AND INDEPENDENCE

4.4 This Environmental Impact Assessment Screening Statement was completed by John Spain Associates (JSA) with the assistance of the relevant special environmental inputs from the design team led by JSA.
4.5 This section of the EIAR has been prepared by Rory Kunz, BA (MOD), MScERM, MAT&CP, Dip EIA Mgmt., Executive Director with John Spain Associates.

4.6 JSA confirm that the experts involved in the preparation of this EIAR Screening Statement are fully qualified and competent in their respective fields.

4.3 EIA THRESHOLDS

Mandatory EIA

4.7 Schedule 5 of the Planning and Development Regulations 2001 (as amended) sets out the thresholds for which if a project exceeds, must be subject to an Environmental Impact Assessment.

4.8 Part 2 of Schedule 5 lists the following that may be relevant to the proposal:

‘10. Infrastructure projects –

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

(iii) Construction of a shopping centre with a gross floor space exceeding 10,000 square metres;

(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.’

Conclusions on Mandatory EIA Requirement

4.9 The threshold cited in the regulations is the ‘construction of more than 500 dwellings’. The proposed development involves the construction of 192 no. residential units comprising apartments located in a series of 5 no. buildings. The proposed development is therefore substantially sub-threshold and below the mandatory threshold of an EIAR requirement for the purposes of mandatory EIA comprising fewer than 500 dwellings and is therefore below the EIA threshold (b) (i).

4.10 The relevant threshold cited in the regulations is the ‘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’.

4.11 The application site area is not located within a “business district” in a city or town but is located within a “built-up area” so that the threshold area of 10 hectares applies. The application site area is circa 1.77 hectares which is substantially below the threshold for an EIA in urban context of 10ha. The proposed development is therefore listed in Class II of the Fifth Schedule and is of a class but sub threshold for the purposes of mandatory EIA having an area of less than the 10 hectare threshold applicable in a built up area.

4.12 The proposed development includes the demolition of the existing buildings on site, c. 1,287 sq. m. The level of demolition involved will not create any significant impacts on the environment.
The request is accompanied by an Appropriate Assessment screening report prepared by Enviroguide, which considers the perceived environmental impact of the proposed 192 no. unit development. The report also addresses the proposed development cumulatively with the future development on lands directly to the south in terms of environmental impact and biodiversity.

4.14 Section No. 15, above, relates to projects likely to have significant effects on the environment having regard to Schedule 7. The following section and basis of this screening is to screen for the requirement of EIAR on a sub-threshold project as the proposal does not exceed any other threshold in Schedule 5.

4.4 SUB THRESHOLD PROJECTS REQUIRING EIAR

4.15 An Environmental Impact Assessment Report (EIAR) is required to accompany an application for permission for strategic housing development of a class set out in Schedule 5 of the Planning and Development Regulations 2001 (as amended) which equals or exceeds, as the case may be, a limit, quantity or threshold set for that class of development. As seen above, the relevant thresholds have not been exceeded in the present case.

4.16 An EIAR will be required in respect of sub-threshold strategic housing development where the Board considers that the proposed development would be likely to have significant effects on the environment.

4.13 Sub-threshold development means ‘development of a type set out in Part 2 of Schedule 5 which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development’.

4.14 Schedule 7A of the Planning and Development Regulations 2001, as amended, outlines the information to be provided by the applicant or developer for the purposes of screening sub-threshold development for environmental impact assessment, as set out below:

1. A description of the proposed development, including in particular—
   (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works, and
   (b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from—
   (a) the expected residues and emissions and the production of waste, where relevant, and
   (b) the use of natural resources, in particular soil, land, water and biodiversity.
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

4.15 Schedule 7A (4) refers to Schedule 7 which provides a list of criteria for determining whether development listed in part 2 of schedule 5 should be subject to an environmental impact assessment.

4.16 The criteria under Schedule 7 is grouped under three broad headings:

- Characteristics of proposed development;
- Location of proposed development; and
- Types and characteristics of potential impacts.
4.17 Section 5 below provides the information required by Schedule 7A for the purposes of screening sub-threshold development for environmental impact assessment, and takes into account, where relevant, the criteria outlined in Schedule 7.
5.0 EIA SCREENING STATEMENT

Introduction

5.1 The following sections provide the information to be provided by the applicant for the purposes of screening sub-threshold development for Environmental Impact Assessment as required by Schedule 7A.

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

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

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

5.2 The following is outlined in response to:

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

5.3 The proposed development comprises 192 dwellings in a mix of 1, 2 and 3 bedroom apartments, including open space and landscaping, access, drainage infrastructure and parking on a 1.77 hectare site.

5.4 The development includes the demolition of the existing Balroy House and its associated outbuildings, as well as the removal of a number of trees on the site, as recommended by the accompanying tree survey report prepared by Independent Tree Surveys. The site will be cleared for development, exclusive of the retained trees which will contribute to the formation of a high-quality landscaping scheme which will preserve the woodland nature and setting of the location.

5.5 All demolition materials will be reused on site where possible or removed from the site by relevant competent contractors as detailed within the accompanying Construction & Demolition Waste Management Plan prepared by Byrne Environmental.

5.6 The following is outlined in response to:

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

5.7 The relevant development plan is the Fingal County Development Plan 2017 – 2023. The subject site is zoned ‘RS’ - ‘Provide for residential development and protect and improve residential amenity’.

5.8 The vision for the RS land use zoning objective is to: ‘ensure that any new development in existing areas would have a minimal impact on and enhance residential amenity’.

5.9 The accompanying Appropriate Assessment Screening prepared by Enviroguide to determine whether or not any likely effects upon a Natura 2000 site arising from the proposed development will be significant, alone and in combination with other development in the area.

5.10 A total of five SACs and two SPAs are located within a 15km radius of the development site, with the closest, located at Rye Water Valley / Carton SAC, at a distance of approximately 7.19 km. The report concluded that due to the distance and intervening landscape between the site and any SPA or SAC, ‘the possibility may be excluded that the proposed development will have a significant effect on any of the Natura 2000 sites’.
5.11 This is not a particularly large-scale project or overly dense in an urban context and is well related to residential land use located in the immediate vicinity of the site on all sides. This highlights the suitability of the site for the proposed scheme, which is compatible with its surrounding land uses and compliant with the site’s zoning objective ‘RS - Residential’ under the Fingal County Development Plan - which seeks to “Provide for residential development and protect and improve residential amenity.”

5.12 In zoning the land for residential use, the Planning Authority will have thoroughly assessed the nature of the site as part of the Strategic Environmental Assessment and Appropriate Assessment...
for the Fingal County Development Plan to ascertain its capacity to accommodation such
development and merit a zoning as designated. There are no apparent characteristics or elements
of the design of the scheme that are likely to cause significant effects on the environment.

5.13 The development is proposed on previously developed brownfield lands. Demolition on the site
will be minor in nature, comprising the existing residential dwelling and associated buildings, with
elements of demolition material to be reused as far as possible within the proposed development.

5.14 For further detail on the physical characteristics of the proposed development please refer to the
architectural drawings, design statement and the landscape drawings which accompany this
planning application.

“2. A description of the aspects of the environment likely to be significantly affected by
the proposed development.”

5.15 This section is intended to provide a clear statement on the possible effects on the environment, if
any. This section will consider the potential impacts of the proposed development under the
environmental topics prescribed by Directive 2014/52/EU. This approach will assist in providing a
comprehensive description of the aspects of the environment likely to be significantly affected by
the proposed development that have not previously been identified.

Population & Human Health

5.16 There may be possible short-term nuisances to human beings from noise, dust and pollution during
construction. These are not likely to be at such a quantity or of such a significance that would
warrant the completion of a sub threshold EIAR. Noise and dust or pollution will be subject to
standard mitigation measures as per typical construction projects. A Construction Management
Plan will be submitted which will mitigate potential impacts (see appendix 2 for CMP Mitigation).

5.17 There are no operational impacts that would be likely to cause significant effects in terms of
population and human health.

Biodiversity

5.18 The subject site does not lie within or directly adjacent to any SAC or SPA. An assessment of the
project outlined in the accompanying AA Screening has shown that significant negative effects are
not likely to occur to these areas either alone or in combination with other plans or projects.

5.19 In this regard, biodiversity is not likely to be significantly affected by the proposed development.

Lands and Soils

5.20 The subject lands exist as a previously developed brownfield site which has most recently been
used for residential use. A significant quantity of trees exist at the site and many of these species
shall be retained within the proposed development.

5.21 As referred to by the AA Screening prepared by Envirogude, the site is located within the River
Liffey sub-catchment and sub-basin. A small, unnamed watercourse is located approximately 240
metres to the east, which is a tributary to the River Liffey. The groundwater rock units underlying
the area are classified as Dinantian Upper Impure Limestones and the sub-soil at the site is
classified as Limestone till (carboniferous).

5.22 Land and Soils are not likely to be significantly affected by the proposed development.
Water

5.23 The AA Screening report notes that Diswellstown and the wider area are located within the Dublin groundwater body. The status of this waterbody is recorded as good. The site area is located on a locally important aquifer with groundwater vulnerability in the area listed as high. A small, unnamed watercourse is located approximately 240 metres to the east, which is a tributary to the River Liffey approximately 1.44km downstream.

5.24 As detailed within the accompanying Engineering Services Report prepared by OCSC Consulting Engineers, the drainage strategy on the site will feature SUDS elements and benefit from an extensive landscaping scheme, discharging surface water at greenfield rates to an existing 375mm diameter public surface water sewer at Carpenterstown Road which bounds the site to the north.

5.25 It is proposed to design the site surface water system to comply with the principles of sustainable urban drainage systems (SUDS) as embodied in the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS). All roads, footpaths and car parking areas across the site are permeable combining with landscaped areas with natural drainage assisting the attenuation and discharge of surface water. This will be released to the public surface water sewer at the equivalent greenfield rate of 9.0 l/s.

5.26 The GDSDS addresses the issue of sustainability by requiring designs to comply with a set of drainage criteria which aim to minimize the impact of urbanization by replicating the run-off characteristics of the greenfield site. The criteria provide a consistent approach to addressing both rate and volume of run-off as well as ensuring the environment is protected from pollution that is washed off roads and buildings.

5.27 Foul water will also be disposed to an existing pipeline at Carpenterstown Road, with water supply attained from an existing source at the same location.

5.28 A flood risk assessment for the site was undertaken as part of the preparation of this request. The assessment indicates that there is no apparent risk of internal property flooding for a design 100-year return period pluvial rainfall event. The site is located outside of Flood Zone A and Flood Zone B of the predicated 1% AEP flood extent of the River Tolka (1.9km north) and the River Liffey (1.25km south). As a result, OCSC note that the site is not considered to be at significant risk from pluvial flooding.

5.29 The drainage strategy for the site was subject to consultation with Fingal County Council through Section 247 meetings in February 2019 and has been informed by this process.

Air & Climate

5.30 The demolition and construction phase of the development has the potential to generate short term fugitive dust emissions during ground preparation and enabling works and from general site construction activities. These emissions will be controlled by appropriate mitigation techniques and through the implementation of a construction phase air quality management and monitoring, as detailed within the accompanying Outline Construction Management Plan prepared by OCSC Consulting Engineers (see appendix 2 for CMP mitigation).

5.31 This will ensure that existing adjacent residential properties will not be adversely impacted by a deterioration in air quality associated with the construction phase, with handling and storage areas sited as far as reasonably possible from public and residential areas.

5.32 The operational phase the development will see the operation of modern, well insulated thermally efficient buildings in which energy efficiency shall be achieved by implementing sustainable features into the building design.
5.33 The proposed development does not include the construction of structures which may impact on the local micro climate by means of shadowing effects, therefore the proposed development will not have an adverse impact on shading or temperature profiles at the nearest existing residential properties or on the local receiving environment in the vicinity of the site boundaries.

5.34 Road traffic is predicted to be the dominant source of greenhouse gas emissions associated with the development. Vehicles will give rise to CO2 and N2O emissions in the vicinity of the proposed development. 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”. Greenhouse gas emissions generated from the development will be insignificant in terms of national CO2 emissions and therefore, it is concluded that the impact of the proposed development on climate will be insignificant.

5.35 Having regard to the above, Air and Climate are not likely to be significantly affected by the proposed development.

Noise & Vibration

5.36 It is not anticipated that the proposed development will impose significant environment effects in terms of noise and vibration. As noted by the accompanying Outline Construction Management Plan prepared by OCSC Consulting Engineers the development will be operated in a way to minimise impact residential amenities of adjacent dwellings.

5.37 Construction periods shall be limited and will adhere to the British Standard Code of Practice for Noise and Vibration Control on Construction and Open Sites and will be monitored continually throughout the construction process. Noise mitigation measures will be put in place to minimise impacts on surrounding land uses. Vibration limits will be applied in accordance with NRA Guidelines for the Treatment of Noise and Vibration in National Road Schemes.

5.38 The operational phase of the proposed development would have no significant additional impact upon the existing noise environment of the area.

Landscape

5.39 The site will not impact on any designated views or prospects within the Fingal County Council Development Plan 2017-2023. It is not considered that there will be likely significant environment effects on the environment in relation to landscape.

5.40 It is noted that the subject site is located within the River Valley and Canal Landscape Character Type which is considered to have a high landscape value and high landscape sensitivity. The proposals are accompanied by a Landscape and Visual Impact Assessment prepared by Macroworks, which analyses the likely visual appearance of the proposed development from a number of viewpoints within the surrounding environment.

5.41 The scale and design of the development has been carefully considered to retain and utilise the existing natural woodland features at the site and optimise screening from trees, whilst incorporating additional features within the proposed landscaping scheme. The layout and siting of the buildings on site has been carefully developed in order to preserve the amenity of adjoining residential development and respect the nature of the landscape in which the scheme is located.

5.42 It is also highlighted that there are a number of residential developments located to the south and west, located within the River Valley and Canal Landscape Character area, such as Diswellstown. As such it is considered that the introduction of a high quality apartment scheme on a large infill site will not detract from the visual amenity of the River Valley.

5.43 We refer the Board to the enclosed LVIA prepared by Macroworks, which states that
“While the proposed development is located marginally within the northern fringe of the ‘River Valleys & Canal Character Type’, it is also within an infill site that has considerable residential development within its vicinity. This is particularly the case to the south, where there is over 500m of such development between the site and any naturalistic riparian landscape. According to Fingal’s County Development Plan (CDP), the landscape type in which the site is located is designated as a Highly Sensitive Landscape. Notwithstanding, there is considerable commercial, educational and residential development in the locality; development that has characterised it as part of the modern urban fabric of the city.

According to the CDP, the ‘River Valleys & Canal Character Type’ is “characterised by areas of grassland along meandering river valleys which, especially in the case of the Liffey, are well wooded at the edge of the floodplain and along the valley slopes.” However, such characteristics are not apparent within approx. 1km of the site. In addition, the dominant urban fabric of the site and within its 1.5km-radius LVIA study area is likely to result in a considerably lower, project specific, landscape sensitivity assessment than that of “highly sensitive.”

From the perspective of potential landscape impacts, the proposed development is not anticipated to give rise to any significant effects on this landscape character type. Furthermore, it is not anticipated that the proposed development is likely to impinge in any significant way on the character, integrity and distinctiveness of this area.”

Material Assets

5.44 The land on which the site is situated is a material asset. It has been zoned for residential development through the appropriate process, and as such, the use of this material asset in a manner compatible with the zoning designation, is entirely appropriate.

5.45 Upon completion, the operational phase will provide an important material asset for the area in terms of high-quality residential units and an element of social housing, as well as a crèche and high quality communal amenities.

5.46 The accompanying Traffic Impact Assessment prepared by OCSC Consulting Engineers notes that sufficient capacity exists on Carpenterstown Road to absorb the potential volume of vehicular movements arising from the development.

5.47 Given these limited impacts, and the design and layout of the proposed development and relationship to surrounding properties and lands, it is not considered that the proposed development would have a significant negative impact in terms of material assets.

Archaeology, Architecture and Cultural Heritage

5.48 IAC Archaeological Consultancy prepared an assessment on behalf of Glenveagh Homes Ltd, to study the impact, if any, on the archaeological, architectural, and cultural heritage resource of a proposed development.

5.49 The report notes that documentary and cartographic research shows that the proposal site is outside the zone of potential for any recorded archaeological monument in the area. The closest monument uncovered as a result of excavation work was found approximately 1.2km from the site and shows potential for sub surface archaeological remains in the area. The area on rich agricultural land is proximate to the River Liffey and is considered to have been a prime area for settlement in the past.

5.50 No archaeological monument or features were visible at ground level during the field survey with any sub-surface remains only exposed as a result of excavation works. The report recommends archaeological monitoring during excavation with any findings reported to the DHCG.
Vulnerability of the project to risks of major accidents and/or disasters

5.51 Standard construction practices will be employed throughout the construction phase. The subject lands are not proximate to any Seveso/COMAH designated sites.

5.52 A flood risk assessment for the site was undertaken as part of the preparation of this request. The assessment indicates that there is no apparent risk of internal property flooding for a design 100-year return period pluvial rainfall event. The site is located outside of Flood Zone A and Flood Zone B of the predicated 1% AEP flood extent of the River Tolka (1.9km north) and the River Liffey (1.25km south). As a result, the OCSC Engineering Services Report notes that the site is not considered to be at significant risk from flooding.

5.53 It is considered that any of the previously identified relatively minor impacts would not in themselves be considered significant nor would they cumulatively result in a likely significant effect on the environment.

“3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from

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

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

5.54 The proposed development is located in a suburban context, surrounded by other residential and commercial uses. The proposed use is therefore consistent and compatible with land in such a location. The works during the construction phase may have a minor impact on the immediate area; however, as works include only minor demolition, the potential impacts associated with this is minimised.

5.55 It is likely that the minor impact of noise and pollution during the construction phase will occur, however construction works in an urban environment are entirely normal and working hours will be limited generally to hours set by condition or as otherwise agreed. The frequency of vehicles accessing the site will vary throughout the construction phase; however, the impact is not considered to be significant.

5.56 On site works will be carried out in accordance with the content of the submitted outline Construction Management Plan, prepared by OCSC, with all mitigation measures implemented.

5.57 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. 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.

5.58 With reference to demolition, the accompanying Demolition & Construction Waste Management Plan & Operational Waste Management Plan, prepared by Byrne Environmental, set out the measures used in the responsible disposal of waste arising from the construction of the development. The majority of waste generated at the construction phase will be excavated material, with surplus construction materials and cuts also anticipated. Demolition material will be reused within the proposed development where possible.

5.59 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.
5.60 The Operational Waste Management Plan also includes strategy for the disposal of waste within the operational phase of the development. This 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.

5.61 The works during construction or the operational phase are not of such a scale or extent that would be considered to be likely to cause significant effects on the environment in the geographic area or on any considerable quantum of the population in the vicinity.

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

5.62 The following section sets out the Schedule 7 EIA Screening criteria.

6.0 SCHEDULE 7 EIA SCREENING

6.1 Schedule 7 of the regulations details “the criteria for determining whether development listed in part 2 of schedule 5 should be subject to an environmental impact assessment.” The criteria under Schedule 7 is grouped under three broad headings as discussed below:

6.1.1 Characteristics of the Proposed Development

<table>
<thead>
<tr>
<th>The characteristics of proposed development, in particular –</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) the size and design of the whole of the proposed development</td>
<td>The proposed development consists of 192 no. residential units on a site area of approximately 1.77 hectares. The 5 storey apartment blocks provide an appropriate and compatible form of development within a suburban area on lands which are currently zoned for residential purposes. The scale and height of the development has been designed in order to integrate with the surrounding residential land uses through a sensitive height strategy, set backs at upper floors and the use of existing screening and woodland features on site to mitigate its visual appearance within the landscape. Scale and design will mitigate visual impacts upon the surrounding area. The development is considered to be of appropriate density to ensure the potential of this brownfield resource is fully utilised. In doing so, the proposal will contribute to achieving compact growth in appropriate urban locations which are accessible to public transport (Commuter Rail and Dublin Bus). The proposal is considered to be compatible with its immediate adjoining land uses, which are predominantly residential. The suitability of the site for residential development is established by its land use zoning for residential uses. In zoning the land for these uses, the Planning Authority will have thoroughly assessed the nature of the site in order to ascertain its capacity to accommodate such development. The size and design of the proposed development is not likely to cause significant effects on the environment, with comprehensive landscaping and tree planting on...</td>
</tr>
</tbody>
</table>
site to ensure biodiversity is preserved and enhanced as far as possible.

There is no aspect of the proposed design or layout that is considered to be particularly unusual or which would be at significant variance with the suburban location and established suburban context of the site.

| (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 | The subject site is brownfield in nature, currently zoned for residential development. It is surrounded by residential development in the form of higher density schemes to the north and south, with single dwellings on larger plots of land to the east and west, consistent with the subject lands.

The Appropriate Assessment Screening by Enviroguide concludes that the likelihood of significant effects on Natura 2000 sites arising from the proposed development in combination with any other developments will ‘may be excluded’.

| (c) the nature of any associated demolition works | The development is on brownfield lands which are currently occupied by Balroy House and its associated outbuildings. Therefore the demolition undertaken as part of the development will be limited in nature with impacts minimised. As far as possible, demolition material will be recycled and reused within the proposed development or offered to other development sites in the area to minimise disposal costs and disruption arising from the waste material.

A number of trees currently exist on the site and many of these will be retained as part of the development.

As such, no environmental impacts are anticipated.

| (d) the use of natural resources in particular, land, soil, water and biodiversity | The nature of the proposed use and the scale of development is such that its development would not result in a significant use of natural resources. Waste, pollution and nuisance generated by the development would be limited by virtue of the proposed residential use and limited scale and the development is proposed to be connected to the public water and waste water systems. Similarly, the nature and scale of the development is not such that it would lead to a likely creation of an accident risk or have an adverse impact on human health.

There will be no large use of natural resources. The main use of natural resources will be land. The subject lands are brownfield lands which are zoned for residential use and have most recently been used as such.

The proposed development site extends to approximately 1.77 hectares, with the mainly source of waste anticipated to arise from excavation and minor demolition at the site. A significant quantum of open space is incorporated within the scheme and a number of existing trees shall be retained in order to preserve and enhance biodiversity at the site and assist with the attenuation of 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.
The construction or operation of the scheme would not use such a quantity of water to cause concern in relation to significant effects on the environment.

The use of natural resources in relation to the proposed development is not likely to cause significant effects on the environment. The overall environmental impact under these headings is therefore considered to be low.

(e) the production of waste

There will be some waste materials produced in the construction of the proposed scheme. Waste will be disposed of in a responsible manner using licensed waste disposal facilities and contractors. 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 Outline Construction Waste Management Plan prepared by OCSC Consulting Engineers and Construction & Demolition Waste Management Plan prepared by Byrne Environmental details the methodologies employed for the control, management, monitoring and disposal of waste from the site.

The Operational WMP also sets out the measures used during the operational phase of the development 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.

(f) pollution and nuisances

There will likely be potential for dust and noise produced during the demolition and construction phases. This will be managed by ensuring construction work largely operates within the approved hours of construction.

Standard dust and noise prevention mitigations measures will be employed and monitored. As such, pollution and nuisances are not considered likely to have the potential to cause significant effects on the environment. All works on the site will be completed in accordance with the content of the Outline Construction Management Plan prepared by OCSC Consulting Engineers (see Appendix 2 for CMP mitigation).

(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

Standard construction practices will be employed throughout the construction phase. There are no technologies or substances to be used in the development which may cause concern for having likely significant effects on the environment. The subject lands are not proximate to any Seveso/COMAH designated sites.

The potential impact of climate change has been allowed for in the design of the surface water drainage network and storage system, with an allowance for a 10% increase in rainfall intensities, as recommended by the GDSDS (Greater Dublin Strategic Drainage Study). All drainage infrastructure will be included within the red line boundary of the site and in accordance with the provision of SUDS.

(h) the risk to human health (for example due to water contamination or air pollution).

There is no impact on air pollution expected from the development outside of the potential dust impact during construction, and therefore the risk to human health is considered negligible in this regard. Standard mitigation measures will be employed.

In terms of potential water contamination, interceptors will prevent pollutants or sediments from discharging into water courses.
Wastewater will be connected to the existing foul sewer to the north of the site and therefore water contamination leading to a risk to human health will not occur.

### 6.1.2 Location of Proposed Development

<table>
<thead>
<tr>
<th>The environmental sensitivity of geographical areas likely to be affected by proposed development, with particular regard to:</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) the existing and approved land use;</td>
<td>The existing use of the site is low density residential land use and the site is zoned as such within the Fingal County Development Plan 2017-2023. The lands in their current form do not fully optimise the use of brownfield land in a suburban location which can be utilised to support a higher density of residential development in accordance with national and regional policy and guidelines. The proposed use as a residential development is compatible with the land use zoning of the subject lands and the nature of existing and zoned lands in the immediate vicinity. No significant negative impacts are likely.</td>
</tr>
<tr>
<td>(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;</td>
<td>As stated in the accompanying AA Screening report, the proposed development is not located within or directly adjacent to any SAC or SPA, with no pathways existing to any feature. The nature of the proposed development is such that the natural resources used in its development are limited and there would be minimal ongoing use of natural resources from the proposed use of the site for residential purposes. An assessment of the project has shown that significant negative effects are not likely to occur to any significant environmental feature or Natura 2000 areas either alone or in combination with other plans or projects. There will be no significant likely effects on the environment in relation to natural resources in the area. The main use of natural resources will be land. The land is zoned for residential and the proposal is considered an efficient use of this brownfield land resource in an established residential area. The proposal involves a relatively small land take of c. 1.77 hectares and will put this resource to greater value use through appropriate density and scale of development. The scale of natural resources used both in construction and operation is not such it is likely to cause concern in terms of significant likely effects on the environment. A number of trees</td>
</tr>
</tbody>
</table>
currently exist at the site and many of these will be retained, as noted within the accompanying Landscape Masterplan by BSLA.

There will be no significant loss of soil, land, water or biodiversity.

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

<table>
<thead>
<tr>
<th>Area Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetlands, riparian Areas and river mouths;</td>
<td>The proposed development footprint is not within or directly connected to wetlands, riparian areas or river mouths. The water environment is not anticipated to be effected by the proposals, with the River Liffey located approximately 1.25 km south of the site.</td>
</tr>
<tr>
<td>Coastal Zones and the marine environment;</td>
<td>The proposed development is not located within a coastal zone or marine environment. The site is not located within or directly adjacent to any SACs and SPAs.</td>
</tr>
<tr>
<td>Mountain and forest areas;</td>
<td>The proposed development is not within or directly connected to any mountain or forest areas. There is no known pathway between the site and mountain or forest areas.</td>
</tr>
<tr>
<td>Nature reserves and parks;</td>
<td>The proposed development is not within or directly connected to any nature reserves or parks. There is no known pathway between the site and nature reserves or parks.</td>
</tr>
<tr>
<td>Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive;</td>
<td>The proposed development is not located within or directly adjacent to any SAC or SPA.</td>
</tr>
<tr>
<td>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;</td>
<td>The site is not known to be located within or connected to such an area.</td>
</tr>
</tbody>
</table>
(vii) Densely populated areas; and

The proposed development is located on zoned lands within an existing built up area, with an established residential land use. The proposed land use is compatible with the zoning provision and existing development and uses in the vicinity. The absorption capacity is not considered to be significantly affected.

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

The site will not impact on any designated views or prospects within the Fingal County Development Plan 2017-2023.

The subject site is located within the River Valley and Canal Landscape Character Type which is considered to have a high landscape value and high landscape sensitivity. The proposals are accompanied by a Landscape and Visual Impact Assessment prepared by Macroworks, which analyses the likely visual appearance of the proposed development from a number of viewpoints within the surrounding environment.

The scale, layout and design of the development has been carefully considered to retain and utilise the existing natural woodland features at the site and optimise screening from trees, whilst incorporating additional features within the proposed landscaping scheme.

No areas of archaeological interest were noted during the field inspection. The nearest monument to the proposed development uncovered by excavation was located c. 1.2km to the west of the site. A total of 4 no. archaeological monuments are located adjacent to the development site at Diswellstown and Castleknock in the form of a habitation site, ritual site, castle and motte and bailey.

The study area of the proposed development is not covered by an ACA nor is there any protected structures within it.

The archaeological report recommends monitoring at the excavation and construction stages of the development.

Conclusion

It is considered that the natural and built environment in this area has the capacity to absorb the proposed residential development.

6.1.3 Type and Characteristics of Potential Impacts

<table>
<thead>
<tr>
<th>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—</th>
<th>Response</th>
</tr>
</thead>
</table>

John Spain Associates Planning & Development Consultants 21
The site size is c 1.77 ha. The site is located on a brownfield site in a suburban location with an established residential land use.

The extent of the impact in terms of geographical area impacted and the size of the population potentially impacted is limited. During construction, there will be some impacts arising on local populations and environments arising from construction traffic, noise and dust. These impacts will however be short term and will be mitigated by good construction practices.

The works during construction or the operational phase are not of such a scale or extent that would be considered to be likely to cause significant effects on the environment in the immediate area or on any considerable quantum of the population in the vicinity.

The development may have a localised visual impact and minor local impacts on traffic, however there will be limited potential adverse impacts on the wider environment.

The proposals include the retention of a number of trees existing on site and the extensive landscaping scheme will enhance the biodiversity of the location. The site is not the subject of any ecological designations.

The nature of the site and the development is such that the impact on land and soils is likely to be negligible. With reference to drainage the nature of the development, and the implementation of standard mitigation measures, the development is considered not to give rise to a significant risk to water quality. The proposed drainage strategy accords with the Greater Dublin Strategic Drainage Study and incorporates SUDS elements to ensure discharge from the site to a surface water sewer adjacent to the north.

In relation to air and climate, and noise and vibration, there is the potential for impacts during the construction phase however given the nature and scale of the proposed development, it is considered that subject to construction mitigation and the use of good construction practices, environmental impacts under these headings will not be significant. Given these limited impacts, and the design and layout of the proposed development and relationship to surrounding properties and lands, it is not considered that the proposed development would have a significant negative impact in terms of material assets.

The development proposes the retention the existing trees in the centre of the site and also along site perimeters with significant open space provided throughout the site, enhancing the quality of landscaping at the scheme.

There are no protected structures and no recorded archaeological features or monuments on the site.

There are a number of potential interactions between environmental factors that arise, notably between water and ecology and population and human health and air and climate and noise and vibration. Subject to best practice mitigation measures during the construction phase significant interactions are not considered likely or such as would give rise to likely significant additional environmental impacts.
| (b) the nature of the impact; | The construction impacts have potential to cause nuisance associated with noise, dust and traffic. The Outline CMP and Construction & Demolition WMP will put in place measure to avoid, reduce or mitigate impacts.  
With mitigation measures in place no significant negative impacts are likely.  
The operational phase will result in the development of permanent residential accommodation, compatible with the established predominant land use in the area.  
No significant negative impacts are likely. |
| (c) the transboundary nature of the impact; | There are no construction phase or operational phase transboundary impacts.  
Any minor impacts will be contained in the immediate vicinity of the site. The subject lands are not located on any geographical or other boundary of relevance to assessment of likely significant effects on the environment. |
| (d) the intensity and complexity of the impact; | The nature of the environmental impacts are not particularly complex or intense. The intensity and complexity of the construction phase is in keeping with modern construction projects.  
No significant negative impacts are likely.  
The operational phase of the development is moderate in scale and will be actively managed.  
No significant negative impacts are likely. |
| (e) the probability of the impact; | It is likely that the minor impact of noise and pollution during the construction phase will occur; however construction works in an urban environment are entirely normal and working hours will be limited generally to hours set by condition or as otherwise agreed.  
All works carried out will be done so in accordance with approved management plans.  
In summary, some level of construction impacts is highly probable, but these will be mitigated by the implemented Outline Construction Management Plan. |
| (f) the expected onset, duration, frequency and reversibility of the impact; | The construction impacts will commence within approximately 6 months of planning approval; they will be short-term, over a period of c. 5 years and restricted by planning conditions in terms of the hours of operation.  
The nature of the proposed development, with the redevelopment of an existing brownfield site for residential use, is that the predicted impacts will be long term, ongoing and not readily reversible. The development is considered to consolidate the existing established residential land use at the site and provide a high quality development which optimises the use of the brownfield resource.  
The frequency of the minor impacts will vary throughout the construction phase; however, the impact is still not considered to be significant. |
No permanent negative impacts are anticipated as a result of the construction phase of the project. No significant negative impacts are likely.

The development will be occupied all year round and impacts will be irreversible.

The subject site is brownfield in nature, currently zoned for residential development. The site is neighboured by 2 no. single residences to the west and east respectively, with more modern higher density developments to the south and north.

The development in culmination with other existing, proposed and/or approved developments is not likely to cause significant effects on the environment, as noted by Appropriate Assessment Screening prepared by Enviroguide.

Appropriate mitigations measures will be undertaken in order to reduce likely significant effects on the environment arising from the proposed development, as set out in the accompanying Outline Construction Management Plan.

Any mitigations measures to manage noise, dust and/or pollution during the construction phase will be based on standard best practice, policies and guidance.

7.0 SUMMARY AND CONCLUSIONS

7.1 This Environmental Impact Assessment Screening Report has been prepared to accompany the Strategic Housing Development Pre-Application Consultation Request to An Bord Pleanála for the development of 192 no. unit residential development on lands at Carpenterstown Road, Castleknock, Dublin 15.

7.2 The report has assessed the potential impact of the proposed development on the environment in response to Section 6 of the pre-application consultation application form. The proposed development is substantially below the thresholds of a mandatory EIAR. The screening exercise has been completed in this report and the methodology used has been informed by the available guidance, legislation and directives.

7.3 It is considered that a sub threshold EIAR is not required for the proposed residential development for the following summation of the reasons set out in this screening exercise:

- The size of the site nature and scale of the proposed development, in particular the fact that the site size which is sub threshold in respect of Class 10(b)(i) (Infrastructure – Dwelling Units) and Class 10(b)(iv) (Infrastructure – Urban Development) of the Planning and Development Regulations, 2001 (as amended),

- The location of the site on lands that are zoned for residential use under the provisions of the Fingal County Development Plan 2017-2023 and the results of the strategic environmental assessment of this plan undertaken in accordance with the requirements of the SEA Directive,

- The suburban location of the site in an established residential area served by public infrastructure, the fact that it is not currently readily accessible for or laid out as a recreational amenity and the existing pattern of development in the vicinity,
• The location of the site outside of any sensitive location specified in article 109(4)(a) of the Planning and Development Regulations, 2001 and the absence of any relevant connectivity to any sensitive location,

• The guidance set out the ‘Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development’ issued by the Department of the Environment, Heritage and Local Government,

• To the criteria set out in Schedule 7 of the Planning and Development Regulations 2001 (as amended),

• The site makes optimum use of a suburban brownfield land resource in close proximity to existing residential development and utilises existing servicing provision;

• The AA Screening Statement also outlines that significant effects to the Natura 2000 network are not likely to arise, either alone or in combination with other plans or projects.

• The development will be connected to public services such as water, foul and storm sewers;

• The site will not be directly hydrologically connected to any protected environmental sites;

• The proposed drainage and flood risk strategy will contribute to improved retention of surface water on site;

• Standard construction practices can be employed to mitigate any risk of noise, dust or pollution;

• No identified impact in this screening exercise, cumulatively or individually is considered to likely cause significant effects on the environment.

7.4 In conclusion, it is considered that the proposed development will not have any significant impacts on the environment. All recommended mitigation measures and standard practices will be employed throughout the construction and operation phase of the development to ensure that the proposed development will not create any significant impacts on the quality of the surrounding environment.

7.5 A Screening Report for Appropriate Assessment has been prepared by Enviroguide Consulting and accompanies this submission. The AA Screening Report concluded that, ‘the possibility may be excluded that the proposed development will have a significant effect on any of the Natura 2000 sites’.
Appendix 1

Location of Designated Environmental Sites within 15km Radius of Subject Site
Appendix 2 –CMP Mitigation Extract
Material Re-use / Recovery Rate

Where possible materials will be re-used. Careful extraction of materials will be undertaken to ensure that the highest proportion of the materials can be re-used. This will reduce the level of new materials required for the proposed site. This in turn reduces the impact on new resources and carbon emissions associated with the extraction, manufacture and transportation of materials to the site. Undertaking the demolition and enabling works upfront ensures that more time can be spent on the careful recovery of materials on site. Where appropriate, excavated material from development sites should be reused on the subject site. If any of the excavated spoil is found to be clean/inert, the site manager will investigate whether nearby construction sites may require clean fill material, to both minimise the costs of transport and to reuse as much material as possible. Any material used on another site will be done under Article 27 of the European Communities (Waste Directive) Regulations 2011.

General Health, Safety and Environmental Consideration

Construction and demolition works will be carried out in such a way as to limit, as far as practicable, adverse environmental impact. Works will be carried out in accordance with the following general provisions:

- Planning approvals from the Local Authority;
- Requirements of the Local Authority.

As part of the Construction Method Statement, the process will ensure that construction techniques and materials used are a fundamental consideration of the design and intended long-term use, the aim below is achieved:

- Design for durability and low maintenance.
- Design for flexibility and adaptability.
- Use of materials from sustainable sources.
- Use of local materials where possible.

Safety, health and environmental issues are a primary consideration in the construction methods adopted. The construction team will develop detailed health and safety plans, specific environmental, fire and accident procedures to suit the construction sequence of the Development. Contractors involved in the Development will ensure that all non-English speaking employees are provided with relevant Health and Safety information in their national language.

All contractors will be required to adopt the relevant skills certification required for that element of the works.

A site specific Safety Statement and a detailed Construction Stage Safety & Health Plan will be compiled prior to any works on site and will be in accordance with the Health & Safety Authority and Local Authority guidelines.

Control of Substances Hazardous to Health

The strategy for controlling all substances and all work processes that may generate hazardous substances will have to be addresses and control measures put in place. Some of the control measures to be employed include the following:

- All fuel and chemicals to be stored in designated areas, with deliveries of hazardous materials supervised.
- Storage tanks and container facilities will be appropriately bunded.
In the case of spills or discharges, remedial action will be taken as soon as possible in accordance with company procedures.

Personal protective equipment (PPE) suitable to the pertaining conditions will be used by all site personnel.

**Environmental, Emergency and Accident Procedure**

Measures will be carried out to avoid environmental incidents, however if these occur then the following types must be reported to the responsible person in the construction team as per the Glenveagh Homes Accident and Emergency Procedure (HSE_P-02-002).

The overall strategy in the event of a spillage will be to “Stop-Contain-Notify” in the event of:

- Spills or discharge to the atmosphere, water supplies, sewage systems, rivers and other watercourses, or to the ground:
  - Any chemical products
  - Oils or fuels
  - Effluent/fumes and gases
  - Waste or contaminated materials
  - Damage to existing:
    - Trees and wildlife
  - Flora and existing local habitats
  - Any environmental incidents that could lead to:
    - Local Authority or regulatory enforcement
  - Public complaint

Emergency routes and procedures will be continuously adapted to suit the construction sequence and stage of the Development. An Emergency and Evacuation Plan will be prepared following the guidelines detailed below and updated on a regular basis during construction.

- Definition of the management organisation and responsibility for safety;
- Definition of appropriate fire prevention measures, including good housekeeping of site, welfare facilities and offices;
- Adequate provision of fire extinguishers across the site;
- Use of non-flammable/fire retardant materials for protection of finished works;
- Safe use and safe storage of flammable materials of all categories, whether solid, liquid or gas;
- Appropriate waste management procedures;
- Monitoring the type and frequency of fire inspections/audits;
- Development of evacuation plans, to include escape routes, muster stations, means of sounding alarms and general emergency procedures;
- Site safety inductions and fire drills;
- The application of permit systems for Hot works, Confined Space Entry and Electrical Access Control;
- The provision of first aiders. Checking of emergency routes are available and unobstructed at all times;
- Liaison with the emergency services and occupants of the adjacent buildings.

First aid facilities will be established and at least one trained first aider will be present on-site at all times. In addition, trained Fire Wardens / Fire Marshalls will be in place on-site to address fire safety.
Air Quality

General Provisions
Construction and demolition works will be carried out in such a way as to limit the emission to air of pollutants, employing best practices.
- The site will be managed in accordance with the Outline Construction Management Plan to minimise potential effects on air quality from construction;
- Air monitoring will be undertaken throughout the construction period as may be deemed necessary;
- The storage and handling of construction materials can be significant dust emission source. The appropriate dust control measures will greatly reduce dust emissions from these sources and ensure that the adverse effect will be reduced or eliminated. These include covering waste sips, scaffold netting, use of water to suppress dust, provision of hard stand access for truck and vehicles;
- Handling and storage areas will be sited as far away as is reasonably and practically possible from public/residential areas. Prolonged storage of materials will be avoided where possible. Transportation of materials that may be dusty will be sheeted down to prevent any escape of materials;
- The burning of materials is prohibited on all Glenveagh Homes’ project sites.

Construction Plant
Construction plant can be a significant source of emission although control measures can be implemented to minimise any adverse impacts. The following measures will be employed:
- Site plant and equipment will be serviced regularly and maintained in good condition and in accordance with the manufactures specifications. Allowing for economic constraints, the plant will be selected on the basis of which has the least potential for dust and emissions;
- Plant will not be left running when not in use;
- Plant with dust suppression equipment will be used where practicable.

5.7 Vehicle Movements
Vehicle movement may result in dust emissions and exhaust emissions. However, a number of control measures can be adopted to eliminate or minimise such emissions:
- Damping down the site haul roads during prolonged dry periods;
- Regular cleaning of hard surfaces at the site entrance;
- Ensuring that materials are transported appropriately (sheeting used over dusty materials);
- Confinement of plant and machinery to designated haul routes on site;
- Speed restrictions on site will be enforced (15 km/h);
- Hoarding to site boundaries where practical which will aid in the reduction of windblown dust off site.

Dust
Dust control will be best achieved at sources, and if possible activities will be carried out in a manner as to preclude dust generation.
If dust is generated, steps will be taken to protect workers in the vicinity who shall, as a minimum, be issued with appropriate dust masks. Dust will, as far as is reasonably practicable, be contained in the area where it was generated. Dust suppression will be carried out to ensure that dust nuisance affecting neighbouring properties is minimised.
Dust emissions from construction will be controlled through careful pre-project planning and effective site management. The following control measure and good practices, will be employed:
- Burning of materials is prohibited on all Glenveagh Homes’ Project sites;
- Loading and unloading will only be permitted in designated areas;
- Provision of water sprays in dust sensitive locations will be introduced, e.g. demolition areas, concrete cutting etc;

Ecology

All construction works will be carefully controlled in terms of potential environmental effects through implementation of this CMP and consultation with the relevant bodies. As part of the construction process, protective fencing will be provided to protected trees, which in turn will provide protection to the ecology. Procedures to minimise risk of pollution potential incidents will be put in place.

Noise and Vibration

General Provision

Noise and vibration levels will be controlled as set out below to ensure that the Developments is operated in a way that minimises detrimental impact to the amenities of local residents.

Construction Noise

During the construction of the works 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
- Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016, Part 5 Noise and Vibration

The noise limits to be applied for the duration of the infrastructure works are those specified in the b Category of BS 5228. These limits are summarised below and will be applied at the nearest sensitive receptors to the works.
- Night (23.00 – 07.00) = 45dB
- Evening (19.00 – 23.00) = 45dB
- Day (07.00 – 19.00) = 70dB

In addition to the above noise limits, the following restrictions will be observed in relation to day to day operations:
- Day to Day Operation (Noise Sensitive & Schools) – 40dB LAeq,15min;
- Day to Day Operation (Commercial) – 55dB LAeq,15min;
- Emergency Operation (Noise Sensitive & Schools) – 55dB LAeq,15min.

Noise levels will be monitored continuously and a threshold value of 65 db LAeq,1hr free field at residential noise sensitive locations in the vicinity of the development will be adopted. Where noise levels exceed this threshold, adequate steps will be taken by the site management to review works and implement additional mitigation measures.

Off-site infrastructure works, excavations and concrete works will be among the most significant activities. The activities are likely to generate the most noise over prolonged periods will be demolition and concrete activities.

The general mitigation principles and methods will include;
- Avoidance of unnecessary revving of engines and switching off of equipment when not required;
- Keeping internal haul roads well maintained;
Minimise drop heights of materials;
Start-up plant sequentially rather than together;
Where practical enclose noise sources;
Where possible keep site equipment away from sensitive areas;
Regular maintenance of plant and equipment.

Soils and Contamination

Operation Control

The strategy for controlling and mitigating potential adverse environmental or health and safety effects during construction will include the following, as appropriate:
- Identification and assessment of the potential for residual ground contamination to be presented prior to the start of any excavation works;
- Minimisation of potential risks to site workers as required by the Safety, Health and Welfare (Construction Regulations) 2013;
- Testing and sampling of excavated soils in order to assess the suitability of materials for re-use on site;
- Dust suppression from any contaminated soils by the regular use of water spray during any dry conditions, sheeting of haulage vehicle loads;
- Stockpiling of contaminated materials will be avoided where possible;
- Stockpiles will be treated to prevent windblown dust;
- Adequate drainage will be designed and installed during construction work to manage surface water runoff;
- The handling and storage of any potentially hazardous liquids on site, e.g. fuels and chemicals, will be controlled and best practice guidelines. Storage tanks/container facilities will have appropriate bunding within the designated area;
- If hazardous liquids escape, remedial action will be taken as soon as possible;
- Where unforeseen contamination is identified during the course of the work, specific investigations will be carried out in the areas in question and appropriate health and safety procedures will be implemented during the removal of the material.

A strategy will be prepared to identify, analyse, segregate and control existing contaminated materials on site.

Transport

General Provisions

Estimates of construction traffic generations for the construction phase are compiled and are discussed earlier within this report.

The works will be carried out in such a way that inconvenience to the public arising from increase in traffic flows and disruptive effects of construction traffic on local and main roads is limited wherever practical.

The key principle of the traffic management plan is to ensure the safety of all personnel (drivers & pedestrians). This means a separate entrance for vehicles and pedestrians. The onsite traffic flow will change through the course of the Development. All site traffic will be subject to speed restrictions.
Vehicles and pedestrians will be segregated at the site entrance. Site operatives will be required to wear high-vis clothing on site. Plant and truck operators will be required to have valid qualifications for the plant/trucks that they are operating.

Specific material storage will be identified and will be managed for on-site movement by the mobile crane or the forklift.

For large, wide or abnormal loads, appropriate guidelines will be followed.

A Traffic Management Plan will be developed for the project prior to commencing works. It will be reviewed and updated to reflect the changing access requirements and route availability. The Traffic Management Plan will be reviewed and updated in line with the construction programme and will typically include details of the following:

- Temporary Traffic Operations Supervisor (TTOS);
- Temporary traffic control measures;
- Temporary and permanent access to the works – vehicle and pedestrian;
- Off-loading and storage areas;
- Traffic management procedures for waste disposal vehicles;

- Personnel and vehicle segregation;
- Equipment e.g. road cones, temporary fencing and signage etc.;
- Ensuring all work is planned and method statements prepared and detailing safe systems of work;
- Ensuring that all sub-contractors make adequate provision for vehicle selection and supervision of drivers;
- Making vehicle safety an integral part of the development safety & health plan;
- Defining standards for driver competence, vehicle safety and maintenance;
- Ensuring the coordination and cooperation between contractors;
- Ensuring that all workers receive site induction training, detailing safe traffic routes and site rules for operating vehicles. Establish safety monitoring procedures for the use of vehicles on site.

Waste

As noted previously a separate “Construction & Demolition Waste Management Plan” prepared for the scheme by Byrne Environmental Consulting LTD has been submitted with this application under a separate cover.

General Provision

All works carried out as part of these works will comply with all Statutory Legislation including the Waste Management Act & Local Government (Water Pollution) Acts, and the contractor will co-operate in full with the Environmental Section of the Local Authority.

The disposal of waste generated during construction, including bulk excavation, will be managed to maximise the environmental and development benefits from the use of surplus materials and to reduce any adverse effects of disposal. In general, the principle of waste management hierarchy, which favours waste minimisation, re-use material and recycle over disposal to landfill will be favoured.

Construction and Demolition Waste

The management of Methods for waste reduction will form the basic strategy for construction waste management from the start. These materials will generally be inert or environmentally benign and may
have alternative uses on site or perhaps another site. Excavated material where possible shall be reused on site.

**Control during Construction**

The contractor will ensure minimisation of waste arising on site and reuse where possible, either directly or by recycling, waste monitoring and setting of targets. Recyclable materials such as metal, timber, cardboard and office paper will be put in colour coded bins, ready for collection by the appropriate contacter.

Initiatives to reduce other waste streams include as far as practically possible:

- Minimising raw material waste through analysing design and construction techniques where possible.
- Liaison with suppliers to enable packaging materials to be sent back for reuse, the use of off-cuts where possible and the recycling of off-cut materials by suppliers.
- Engaging contractors in the process of maximising the use of recycled aggregates for hardcore.
- The entrance to the site will be kept clean as to minimise dust and pollution to the water course.

**Water Resource**

The works will be carried out and working methods adopted to ensure that construction activities do not adversely affect surface water and ground water quality. The most damaging being concrete leachate, oils and chemicals and suspended solids.

The following best practice measures will be adopted:

- Use of silt fences and silt bags to contain surface water run-off from the site;
- Discharge to public sewers – after prior agreement with the local authority;
- The existing storm water drainage system will be retained where possible during construction, with modifications as necessary to prevent ingress of debris;
- Control of spoil and other materials to prevent spillage;
- Oils/Fuels/Hazardous Wastes will be stored in bunded areas or in bunded containers;
- Washout from concrete trucks will be contained or prohibited on site;
- All drainage arrangements will be determined in consultation with the Local Authority;
- Surface water as arising during excavation works will be discharged to the surface water system;
- Sediment control will be implemented where surface water is contaminated with silt.

**ENVIRONMENTAL MANAGEMENT**

**Construction Phase – Pollution Prevention**

Works will follow best practice guidance as outlined in *Guidelines on the Protection of Fisheries during Construction Works in and Adjacent to Waters* (IFI, 2016). Although the risk of any significant impact on water quality in any receiving water bodies is considered to be extremely low given the lack of running water features on the site. Best practice will be implemented at all times in relation to all construction activities to avoid any accidental pollution events occurring to the wet ditches in the area, or polluting the ground water table.

This will include the following actions:
SuDS will be constructed in line with manufacturer’s guidelines / best practice methods;

During construction, any surfaces which are intended to enable infiltration must be protected from compaction. This includes protecting from heavy traffic or storage materials;

Water contaminated with silt will not be allowed to enter a watercourse or drain as it can cause pollution. All parts of the drainage system will be protected from construction runoff to prevent silt clogging the system and causing pollution downstream. Measures to prevent this include soil stabilisation, early construction of sediment management basins, channelling run-off away from watercourses and surface water drains and erosion prevention measures;

Following construction, subsoil that has been compacted during construction should be broken up prior to the re-application of topsoil to reinstate the natural infiltration performance of the ground;

Areas of SuDS that have been compacted will be refurbished;

Pipe systems and orifices will be checked for blockages or partial blockages;

Silt deposited during construction will be removed;

Soils will be stabilised and protected from erosion whilst planting becomes established;

Hydrocarbons or any hazardous chemicals will be stored in specific bunded areas. Refuelling of plant and machinery will also be carried out in bunded areas to minimise risk of any potential pollutants being discharged from the site;

Pollution control measures will be implemented to control run-off from the site and prevent run-off which is potentially contaminated with sediments or hazardous chemicals entering the drainage network;

Pouring of cement based materials for works will only be carried out in dry conditions. Pumped concrete will be monitored to ensure there is no accidental discharge. Mixer washings and excess concrete will not be discharged directly into the drainage network. Concrete washout areas will be created to avoid any accidental discharge from the proposed development site;

Foul drainage from site offices and compounds, where not directed to the existing wastewater network, will be contained and disposed of off-site in an appropriate manner and in accordance with the relevant statutory regulations to prevent the pollution of watercourses;

A response procedure will be put in place to deal with any accidental pollution events and spillage kits will be available on site. Construction staff will be familiar with the emergency procedures and use of the equipment.

Measures to Reduce Impacts on Habitat Loss

Care will be taken to ensure that trees and hedges being retained are incorporated into the development without being impacted upon. Protective fencing will be provided around trees and hedge vegetation being retained and this will enclose their Root Protection areas (RPAs). The fencing will be at least 2.3m high and constructed in accordance with figure 1 of BS 5837 2012. The fencing will be made up of Herras fencing panels.

Measures to Reduce Impacts on Bats

Lighting proposals for the construction phase will adhere to the advice provided in Bats and lighting – Guidance for Planners, Engineers, Architects and Developers (Bat Conservation Ireland 2010), Guidance Notes for the Reduction of Obtrusive Light GN01 (Institute of Lighting Professionals, 2011) and Bats and...
Lighting in the UK – Bats and the Built Environment Series (Bat Conservation Trust UK, January 2008). Construction stage lighting shall be reviewed by a qualified bat ecologist.

If necessary the bat ecologist shall recommend adjustments to directional lighting (e.g. through cowls, shields or louvres) to ensure minimum light spill onto vegetated areas, and above lighting columns (reducing light spill to vegetated areas to below 3 lux where possible).

Measures to Reduce Impacts on Birds

To limit the potential impact of construction on breeding birds, vegetation removal will be restricted to the non-breeding season (September to February, inclusive). Where the construction programme does not allow this, an ecologist will undertake a breeding bird check immediately prior to vegetation clearance. Where no breeding birds are present clearance may proceed without requiring a licence. However given that breeding birds and their nests of all bird species are protected under the Wildlife Acts, a licence would be required from the NPWS to permit the destruction of nest sites and disturbance to breeding birds during the bird breeding season (1st March to the 31st August). Depending on the species in question licences may or may not be granted and therefore avoidance of the breeding bird season is by far the best option in order to avoid delays during vegetation clearance.

Measures to Reduce Impacts on Amphibians

Drainage ditches will be checked for the presence of amphibians prior to works on them commencing. If amphibians are found, a license will be required from the National Parks and Wildlife Service before works can proceed. In order to protect suitable amphibian breeding habitat, measures to avoid the release of silt into the local drainage network during vegetation clearance and construction at this site will be required to be put in place prior to works commencing.