



# Environmental Impact Assessment Report (EIAR)

## Volume 1: Non-Technical Summary

*In respect of a Part 10 (s. 175) Planning Application for a Proposed Mixed-use Residential-Led Development located on lands at Cherry Orchard, Dublin 10.*

*On behalf of The Land Development Agency*

November 2023

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## Introduction

This Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIA) prepared on behalf of The Land Development Agency (LDA), in respect of a Proposed Development at sites located on lands at Cherry Orchard, Dublin 10 (known as Development Site 4 and 5 in the Park West Cherry Orchard Local Area Plan 2019).

The Development will be delivered across four Phases and will have a mix of residential, retail / commercial, community and art / cultural uses, including public, private, and communal open spaces, play areas and a creche facility.

The Phase 1 of the Development, which is the subject of this Planning Application, consists of the construction of a residential led mixed use scheme comprising 708no. residential apartment units comprising 547no. cost rental and 161no. social / affordable units (59,022 sqm total residential GFA), a convenience retail supermarket (2,523 sqm GFA), 7 no. independent retail / commercial units (total 373 sqm GFA), 13 no. dedicated community and arts / cultural spaces (total 1,222 sqm GFA), external community events space (630 sqm), a childcare facility (672 sqm) with dedicated outdoor play area of c. 200 sqm, including community plaza, community gardens, multipurpose amenity lawn, outdoor gym, multi-use games area (MUGA), playground and all associated site and development work. The proposed development represents Phase 1 of the overall planned development for Development Sites 4 and 5 of the LAP lands.

The purpose of the NTS is to summarise and explain in non-technical language the likely direct and indirect environmental impacts arising from the proposed development. The EIA has been prepared in accordance with the requirements of the *Planning and Development Act 2000 (as amended)* and the *Planning and Development Regulations 2001 (as amended)* which adapts Environmental Impact Assessments (EIA) regulations under EU Directives.

## Requirement for an EIA

Annex I of the EIA Directive 85/337/EC requires as mandatory the preparation of an EIA for all development projects listed therein. Schedule 5 (Part 1) of the *Planning and Development Regulations 2001 (as amended)* transposes Annex I of the EIA Directive directly into Irish land use planning legislation. The Directive prescribes mandatory thresholds in respect to Annex I projects. Annex II of the EIA Directive provides EU Member States discretion in determining the need for an EIA on a case-by-case basis for certain classes of project having regard to the overriding consideration that projects likely have significant effects on the environment should be subject to EIA. Schedule 5 (Part 2) of the *Planning and Development Regulations 2001 (as amended)* set mandatory thresholds for each project class.

Class 10 (b) (i) and (iv) addresses 'Infrastructure Projects' and requires that the following class of project be subject to EIA:

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

Furthermore Category 10(b)(iv) refers to:

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

The requirement for an Environmental Impact Assessment Report was subject to informal scoping with An Bord Pleanála over the course of the pre-planning consultation.

## Project Team

This EIAR has been prepared by KPMG Future Analytics (Chartered Town Planning and Development Consultants) along with various competent specialist sub-consultants on behalf of the Land Development Agency (LDA). The list below presents the subject matter experts who contributed to the preparation of the report and their qualifications:

Table 1 Project Team Authors and Qualifications

Environmental Aspect	Company Name	Person Responsible	Qualification
EIAR Manager	KPMG Future Analytics	Alan Crawford	BA (Hons) MRUP MIPI
EIAR Reviewer	KPMG Future Analytics	Stephen Purcell	BSc. (Hons) MRUP MSc. MIPI FSCSI FRICS
Air Quality	AWN Consulting	Dr Avril Challoner	PhD, BEng, CSci, CEnv
Climate Factors	AWN Consulting	Dr Avril Challoner	PhD, BEng, CSci, CEnv
Noise and Vibration	AWN Consulting	Alistair Maclaurin	BSc PgDip MIOA
Biodiversity	-	Gerry Tobin	BSc. (Zoo), M.A.
Archaeological, Architectural and Cultural Heritage	Archer Heritage Planning	Maeve McCormick	BA MSc Archaeology
Landscape and Visual Impact	Mitchell and Associates	Feergus McGarvey	BA (Hons) DipLA MILI HMGLDA
Lands, Soils, and Geology	Waterman Moylan	Robert Walpole	HCEng, BEng, BEng, MIEI
Water	Waterman Moylan	Robert Walpole	HCEng, BEng, BEng, MIEI
Population and Human Health	KPMG Future Analytics	Alan Crawford	BA (Hons) MRUP MIPI
Material Assets – Traffic and Transport	Waterman Moylan	Brian McCann	BE, MSc (Eng), DIC, CEng, FIEI, MIStructE, MConsEI
Material Assets – Waste Management	AWN Consulting	Niamh Kelly	B.A. Earth Sciences, MSc International Disaster Management, Affiliate Member of CIWM
		Chonaiil Bradley, Principal Environmental Consultant	BSc Environmental Science, Associate Member of CIWM
Material Assets - Utilities	Waterman Moylan	Robert Walpole	HCEng, BEng, BEng, MIEI

## Background to the Scheme

The subject landholding consists of 2 no. sites know as Key Development Site 4 and Site 5 under the Park West Cherry Orchard Local Area Plan 2019. The lands are located in Cherry Orchard, Dublin 12 and together have a combined area of c. 11.5 hectares. The subject lands are under the ownership of Dublin City Council and are being developed for a mixed-use residential scheme.



Figure 1 Development Sites 4 and 5 under the Park West Cherry Orchard LAP (2019) marked in blue, with the Application Site marked in red.

The subject lands are part of a wider area identified under the Dublin City Development Plan 2016-2022 for regeneration and hence, was designated a Strategic Regeneration Development Area (subject lands fall under SDR4). This objective has since been carried forward and reflected under the current Dublin City Development Plan 2022-2028. The area also has a Local Area Plan (2019), which then identified 8 no. Key Development Sites within the area with potential to deliver approximately 2,000 residential units alongside new mixed use and commercial development.

Subsequently, the Land Development Agency in partnership with Dublin City Council will be developing Sites 4 and 5 and delivering it across 4 Phases with a mix of uses, predominantly residential – which includes a mix of cost rental, social and affordable units planned for Phases 1 to 3 of the development.

In total the development, once delivered, will provide approximately 1,115 homes, 4,790 sqm of retail uses on Park West Avenue, creche and up to 16,310 sqm of commercial / enterprise uses adjacent to the M50 corridor.

The application site represents Phase 1 of the overall planned development, and forms part of Site 4 of Local Area Plan (2019). The total site area is c. 6.27 hectares.

The summary development description for the proposed scheme is as follows:

*The proposed development (GFA of c. 66,399sqm) involves the construction of a residential led mixed use scheme across 16 blocks contained within 9 buildings ranging in height from 4 to 15 storeys. The development includes the provision of 708no. residential apartments comprising 547no. cost rental and 161no. social / affordable units (28no. studio units, 263no. one-bed units, 368no. two-bed units and 49no. three-bed units, together with a convenience retail supermarket (2,523sq.m GFA), 7no. retail / commercial units (totalling 373sq.m GFA), community, arts and cultural spaces delivered across 13no. community and arts / cultural units (totalling 1,222sq.m GFA), and associated external events space and community gardens (1,157sq.m) and a childcare facility (672sq.m GFA) with associated external playing space (200sq.m) and all ancillary accommodation including sub stations, plant, refuse stores, cycle stores, and metre / comms rooms. The proposed development also includes the provision of landscaped public open space of 6,123 sq. m. including a public plaza, play space, outdoor fitness trail, communal amenity space of 5,596 sq. m. Private open space for the apartment units is achieved through the provision of balconies or terraces for all individual apartments.*

*The proposed development will also involve the provision of sufficient car parking (including accessible car parking) and bicycle parking spaces at undercroft and surface level throughout the development. The development will also provide for all associated ancillary site development infrastructure including site clearance, boundary treatment, associated public lighting, internal roads and pathways, ESB substations, switch room, water tank rooms, storage room, meter room, sprinkler tank room, comms room, bin storage, bicycle stores, green roofs, hard and soft landscaping, play equipment, attenuation area, green and blue infrastructure including green roofs, PV panels and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply. Please refer to the statutory notices for full and complete description of the proposed development.*

Please refer to the statutory notices for the full details on the proposed development.

The subject site is bound by Cloverhill Road to the north, Cedar Brook Avenue and Park West Avenue to the east, Park West Cherry Orchard Rail Station to the southeast, the rail line to the south, and the M50 motorway to the west. Two large industrial estates can be found to the south and southwest of the site as well as many green spaces and parks softening the area.

Located approximately 7km from the city centre, the proposed scheme is served by high-frequency transport (including the Park West Train Station and Bus Connect routes). The proposed scheme is hence, ideally positioned with convenient access to other parts of the city.

## Planning Policy Context

This Chapter of the EIA describes the proposal in the context of the relevant planning policy as it relates to the environment. The accompanying planning report included as part of this planning application provides a detailed review of these policies and objectives.

Given that the Development Sites are located within the Dublin administrative area, the Dublin City Development Plan 2022-2028 is the key policy document for the Dublin City Council area. However, the site is located within the area identified under the Dublin City Development 2016-2022, as area for which a Local Area Plan will be prepared. This has been carried forward to the current Dublin City Development Plan 2022-2028. Therefore, the Park West Cherry Orchard Local Area Plan 2019 is the local statutory policy document of relevance for the subject site. The Park West Cherry Orchard Local Area Plan was adopted by Dublin City Council in 2019.

Other relevant policy documents include the National Planning Framework – Project Ireland 2040 (including the review of the Road Map for the First Revision and the National Development Plan 2021-2030) the Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly, Housing for All, A New Housing Plan for Ireland 2021, Dublin City Development Plan 2022-2028, and the Park West Cherry Orchard Local Area Plan 2019.

This chapter sets out a summary of the National and Regional planning policies and Local Planning and Development Standards in context and the interaction of this policy context with the specialist chapters of the report.

The Development Sites, which are currently undeveloped lands have been zoned for regeneration as Strategic Development and Regeneration Area (Z14) under the Dublin City Development Plan 2022-2028. The proposed uses are permitted in principle on the subject site and hence, the proposed scheme would be considered acceptable in principle by the land use zoning objective.

The Development will minimise the potential environmental impacts as set out in the various Chapters of this EIA. Additionally, risk management and interactions between environmental factors have been examined, and a programme of mitigation and monitoring measures has been set out.

## Air Quality

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality associated with the proposed development at Cherry Orchard.

In terms of the existing air quality environment, baseline monitoring data available from similar environments indicates that levels of nitrogen dioxide, particulate matter less than 10 microns and less than 2.5 microns are generally well below the National and European Union (EU) ambient air quality standards.

Impacts to air quality can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions. In terms of the operational stage air quality and climate impacts will predominantly occur as a result of the change in traffic flows on the local roads associated with the proposed development.

The UK Institute of Air Quality Management guidance was used to assign a high level of sensitivity to dust soiling impacts to the area in the immediate vicinity of the proposed development. The local area is considered of low sensitivity to human health impacts from dust emissions. The scale and nature of the construction works were reviewed, and it was determined that a medium level of dust control was required for the demolition and construction phases of the proposed development. Once the dust mitigation measures outlined in Appendix 5.1 of Chapter 5 are implemented, dust emissions are predicted to be short-term, negative and imperceptible and will not cause a nuisance at nearby sensitive receptors. Construction phase traffic can also impact air quality, particularly due to the number of HGVs accessing the site. Construction phase traffic levels were reviewed and it was found that the change in traffic was not of the magnitude to require a detailed assessment, therefore the impact is considered short-term and neutral.

The TII guidance PE-ENV-01106 details a methodology for determining air quality impact significance criteria for TII road schemes and infrastructure projects however, this significance criteria can be applied to any development that causes a change in traffic. The changes in traffic volumes associated with the operational phase of the development were not substantial enough to meet the assessment criteria requiring a detailed air quality and climate modelling assessment. Therefore, this assessment was scoped out. The potential impact of the proposed development on ambient air quality in the operational stage when compared to the EU limit values is considered long-term, localised, neutral, imperceptible and non-significant.

The Grand Canal pNHA (Site Code: 002104) is within 200 m from a road link impacted by the proposed development during the operational phase. Therefore, there is the potential for impacts to ecology as a result of nitrogen oxide emissions or nitrogen deposition and an assessment is required. The assessment, in accordance with PE-ENV-01106, for ecological impacts due to operational phase traffic, found there is an overall negative, slight and long-term which is not significant in EIA terms.

No significant impacts to either air quality are predicted during the construction or operational phases of the proposed development.

## Climate Factors

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on Climate associated with the proposed development at Cherry Orchard.

Data published in July 2023 (EPA, 2023) predicts that Ireland exceeded (without the use of flexibilities) its 2022 annual limit set under EU's Effort Sharing Decision (ESD) (EU 2018/842) by 3.72 Mt CO<sub>2</sub>eq. When the available flexibilities are taken into account, the limit is exceeded by 1 MtCO<sub>2</sub>eq. The sector with the highest emissions in 2022 was agriculture at 38.4% of the total, followed by transport at 19.1%. For 2022 total national emissions (excluding LULUCF) were estimated to be 60.76 Mt CO<sub>2</sub>eq (EPA, 2023).

There is the potential for release of a number of greenhouse gas emissions to atmosphere during the full lifecycle of the proposed development including construction, operation and decommissioning. The embodied carbon within the construction materials has been calculated. This calculation was based on OneClickLCA Carbon Designer Tool for Ireland from the Green Building Council for structural elements with non-structural elements (civils i.e. drainage, road surfaces) added via the TII online carbon tool. The breakdown of the activities between the different phases of the proposed development has been assessed. Once mitigation measures are put in place during detailed design, the effect of the proposed development in relation to GHG emissions is considered long-term, minor adverse and not significant in EIA terms.

An operational phase assessment was conducted to consider the vulnerability of the proposed development to climate change. This involves an analysis of the sensitivity and exposure of the development to future climate hazards which together provide a measure of vulnerability. It has been assessed that there is a low risk as a result of the majority of future climate change hazards with the exception of flooding and extreme cold associated with landscaping elements which has a medium risk. Flood risk is classed as medium vulnerability due to potential future flooding as a 30% allowance for climate change has not been considered to align with high-risk future scenarios (RCP8.5). The design is currently in line with a low vulnerability to the moderate-risk future scenario (RCP4.5) and there is the potential that if an assessment was completed during detailed design for the high-risk future scenario that the design is also sufficient to apply a low vulnerability. Landscaping has a medium vulnerability to extreme cold temperatures. Available mitigation for this will be considered during detailed design. All other vulnerabilities to future climate change have been identified as low and therefore are not a significant risk.

The proposed development will result in some impacts to climate through the release of GHGs, however the projects Climate Action Energy Statement prepared by Waterman Moylan aims to minimise operational phase energy requirements. TII state that the crux of assessing significance is "not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050". The impact of the proposed development in relation to GHG emissions is considered long-term, minor adverse and not significant in EIA terms provided the final design and operational phase emissions take account of GHG mitigation measures set out in the local and National Climate Action Plans.

## Noise

The existing noise climate has been surveyed during daytime periods and it has been found that prevailing noise levels are primarily due to local road traffic and rail movements.

The potential noise and vibration impact on the nearest noise-sensitive locations was assessed for the short-term construction phase and the long-term operational phase.

Provided that the mitigation measures recommended within the chapter are employed and subject to good working practice during the construction phase it is predicted that the noise impact during the construction phase will be short-term, negative, and slight to moderate. The vibration impact is considered to be short-term, negative, and not significant.

During the operational phase, the key potential noise sources, including increased road traffic and mechanical plant noise emissions, have been assessed and commented upon. The assessment has indicated that additional traffic on local roads will result in a negative, moderate and long-term impact at Junction Arm 6 C, all other junctions and routes are predicted to have a neutral to negative, imperceptible to slight, long-term impact.

The operational plant noise from the development will be designed to ensure the prevailing background noise environment is not exceeded by plant noise such that potential adverse noise impacts are avoided. Once noise emissions from operational plant and activities are designed in accordance with BS 4142 Methods for Rating and Assessing Industrial and Commercial Sound, resultant residual noise impact from this source will be of negative, not significant, long-term impact.

The potential for inward noise impact on the proposed development has also been assessed. The assessment was carried out with reference to the guidance contained in Professional Practice Guidance on Planning & Noise (ProPG), BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings (BSI); and the local and national Noise Action Plans relevant to the area. The assessment has identified facades where upgraded acoustic glazing will be required.

## Biodiversity

The area proposed for the present development is characterised by the following. There are no Annex 1 or 2 species or habitats present.

Extensive bat surveys have been carried out during the active bat seasons and forage and commuting routes have been identified with current route planning of this proposed development being modified in line with these findings.

There is no Red or amber listed bird species (Birds of Conservation Concern in Ireland) in the area proposed for the present development.

Watercourses such as rivers and canals are important ecological corridors as mentioned under Article 10 of the Habitats Directive. The present development will not interfere with mammal access along these river and stream corridors as there are none present on-site.

The current habitats on site within the footprint of the proposed development are of little ecological significance, are heavily trafficked and modified and are common throughout the rest of the site.

There are no rare habitats and rare or protected species within and adjacent to the site.

Annex I of the EU Habitats Directive. There are no annex 1 habitats present.

Annex I of the EU Birds Directive. There are no annex 1 bird species presently nesting in the footprint of the proposed development.

Red or amber listed bird species in the current list of Birds of conservation concern in Ireland. There are currently no birds of conservation concern within the area of the proposed development.

There is no impact anticipated on local adjacent habitats and thus no impact on rare or protected species.

Ecological surveys have been carried out at many times of the year and cover all seasons.

No application needs to be made to the National Parks and Wildlife Service for a derogation licence to permit actions affecting otter and bats species that would normally be prohibited.

Badgers and their sets are protected under the provisions of the Wildlife Act, 1976, and the Wildlife Amendment Act, 2000. It is an offence to intentionally kill or injure a protected species or to wilfully interfere with or destroy the breeding site or resting place of a protected wild animal. Badger setts can only be disturbed under licence from NPWS. There are no badger setts in the vicinity of the proposed development.

All construction work will be monitored by Gerard Tobin BSC MA. Should there be an issue of ecological concern the author will report and rectify the failure. The author has twenty-five years' experience as a professional ecologist and is familiar with the measures necessary to monitor developments in both rare and common habitats.

Otters have not been seen or evidence for their presence has not been found during field work. Habitats on site are not suitable for the presence of otters.

No Bat roosts will be disturbed. No impact on bat population numbers is anticipated.

No Badger setts were found during field work.

No derogation licences are required.

## Archaeological, Architectural and Cultural Heritage

An archaeological, architectural, and cultural heritage study was undertaken at the subject site in order to identify and record the location, nature and dimensions of any archaeological or cultural heritage features, fabric or artefacts that may be impacted by the proposed works. This assessment included a desk-based study and site walkover survey. The desktop study collated data from the Record of Monuments and Places (RMP), the Topographical files of the National Museum of Ireland (NMI), cartographic sources, aerial photography, documentary research and relevant on-line databases. In addition to documentary research, site inspection, geophysical survey and test excavation assisted in providing an understanding of the receiving archaeological and cultural heritage environment and potential. The following factors were identified in the course of assessment:

The subject site is large in scale at 11.28 Hectares.

There are no artefacts listed in the Topographical Files as found within or in close proximity to the subject site.

There are no RMP's within the site. Burial Ground (DU017-083) is located c. 200m SE of Site 4.

A series of townland boundaries and a parish boundary were recorded on cartographic sources.

No potential archaeological features were recorded within the subject site during analysis of aerial photographs. The site was observed as having previously been disturbed by construction activity.

No previous archaeological excavation works were undertaken on subject site.

There are no Protected Structures within either subject area and the site does not lie within an ACA.

No potential archaeological features were recorded during the site walkover survey. Site 4 appears partially disturbed by previous construction activities; only the northern part seems to be undisturbed green field.

Licensed geophysical survey (22R0221) did not discover any potential archaeological features.

Licensed Test Excavation (22E0522) uncovered three features of archaeological significance were identified in Trench 12. They comprised the ploughed out remains of a fulacht fia.

The features in Trench 12 are likely to be prehistoric and appear to be associated with burnt mounds/fulachtaí fia, a relatively common site-type found throughout the country.

### Predicted Impacts

The proposed development will involve considerable ground disturbance works across the subject site including excavations and other groundworks (e.g., provision of access roads and service trenches), movement of machines and storage of material in sensitive areas. Open area topsoil stripping has the greatest potential to expose and damage these remains. Test excavations revealed the remains of a Fulacht Fia within Trenches 11 and 12. The potential impact is based on Guidelines for the Information to be contained in Environmental Impact Assessment Reports (EPA 2017). It is concluded that, in the absence of the mitigation measures described below, significant impacts on the potential buried archaeological remains at the site would be **Profound, Negative, Permanent and Direct**.

There is low potential for the survival of further buried archaeological remains across the remainder of the site.

### Mitigation

Mitigation measures shall be undertaken as directed by the DHLGH in compliance with national policy guidelines and statutory provisions for the protection of archaeology and cultural heritage.

### Recommended Pre-Construction Phase Mitigation Measure

Due to the discovery of a Bronze Age *Fulacht Fia* within the subject area, it is recommended as mitigation prior to any further ground works within the subject area that a full archaeological excavation take place in order to preserve the identified archaeological features by record.

#### **Recommended Construction Phase Mitigation Measure**

All ground disturbance works across the development site will be monitored by a suitably qualified archaeologist. In the event that further archaeological material is recorded during monitoring, discussion/consultation with the DHLGH will be sought in order to ascertain the appropriate treatment (i.e. preservation by record/preservation in situ) of any additional archaeological remains. Should the DHLGH recommend preservation by record/full archaeological excavation, this work will be undertaken under the appropriate licence. The DHLGH may recommend preservation in situ, should avoidance of any newly discovered archaeological remains be possible.

#### **Operational Phase Mitigation**

No operational phase mitigation is anticipated. Issues of archaeological and cultural heritage interest will have been resolved prior to or during the construction phase.

#### **Architecture**

There are no Protected Structures or structures entered on the NIAH located within or in the immediate vicinity of the subject area. No mitigation measures are required.

#### **Cultural Heritage**

It is recommended that the likely removal of existing townland boundaries be mitigated by the creation of a descriptive, drawn and photographic record.

#### **Residual Impacts**

The residual effects are the final predicted or intended effects which occur after the proposed mitigation measures have been implemented. It is not anticipated that there will be any residual impacts with the appropriate mitigation measures in place during the construction and operational phases.

#### **Cumulative Impacts**

It is noted that previous archaeological assessment and excavation has been carried out in advance of development to the west of the M50 Motorway at Gallanstown/Yellowmeadows/Ballymanaggin townlands. This work identified a ring ditch, burnt spreads and metalworking, largely of prehistoric date. Also, previous pre-development assessments at the Parkwest commercial complex identified an early medieval cemetery. Consequently, the likely cumulative impacts of the proposed development have been increased. However, the proposed mitigation outlined in this Chapter will ensure that cumulative effects will not be significant.

#### **Monitoring**

All ground disturbance works across the development site will be monitored by a suitably qualified archaeologist.

## Landscape and Visual Impact

### Non-Technical Summary of Chapter 10, Landscape and Visual Assessment, of the EIAR.

The full assessment of Landscape & Visual Character is contained within Chapter 10 of the EIAR.

#### *Introduction*

The proposed development site is part of a development plan site within the Park West Cherry Orchard Local Area Plan. It is currently a brownfield site of approx. 11.5 ha. It is located to the north of Cherry Orchard railway station and to the west of residential area of Cherry Orchard, where the M50 motorway forms its western boundary, screened by tree planting. The main body of the site is defined on its eastern boundary by Parkwest Avenue, and by the Dublin to Galway railway line which is in a cutting to the south. To the south, from parts of the site, the Dublin mountains are visible beyond high voltage cables, with one pylon being approx. 120m from the site. A smaller pylon is located in the development site on the east of Park West Avenue. Part of the site lies to the east, along Cedarbrook Way, with a parcel of land forming the balance of the development plan site to the south of Cedarbrook Way. The site therefore is very much defined by large scale infrastructure around its edges.

#### *Physical context – land use, topography and vegetation*

The broader landscape setting is of the long established Cherry Orchard residential area to the east, consisting of two-storey terraced housing forming a ring around Cherry Orchard Park. In between, Cedarbrook is a more recent residential development of 2-4 storey apartments. To the south, beyond the railway station, are the Academy, Crescent and Concert buildings which are residential and commercial. A vacant site sits between the Academy building, and another vacant site is on the eastern side of Park West Avenue to the south of the railway line. The site in discussion therefore forms another development site in a series of sites to the west of Cherry Orchard.

The site consists of the remnants of fields, including hedgerows across the site which are the boundaries of 3 townlands; Raheen to the north, Ballymanaggin to the west and Gallanstown to the south. Much of the land is degraded pasture, and there are large swathes of stripped of soil which are regenerating. The land is secured by a high palisade fence along Parkwest Avenue, behind which the boundary is mounded, reducing visibility in to the site. Within the site, at the time of the initial site visit, there were horses grazing, amongst horse carcasses and burnt out cars.

The lands are relatively flat, and levels are defined by the adjacent infrastructure, with the M50 elevated to some extent, and Park west Avenue rising southwards to a bridge that crossed over the M50. There are maturing trees to the southern end of the site – at this point part of the overall development plan site – presumably planted as part of the Parkwest Avenue and bridge scheme. To the south, with the railway line in a cutting, Parkwest Avenue rises to the Cherry orchard railway station which sits on a bridge over the railway line.

#### Impact Assessment

##### *Do Nothing*

In the event of no development proceeding, the land is likely to continue to be left unmanaged, other than the grazing of horses, and vulnerable to anti social activity.. In time, as the site is zoned for development, it is likely that in the absence of this subject proposal that a development of a similar nature would be progressed on the site that accords with national and regional policies to promote sustainable growth with enhanced emphasis on self-sustaining economic and employment based development opportunities. The effects of any other type of development are predicted to be consistent with those outlined in the impact section below.

### *Construction Phase*

Potential impacts during the construction phase are related to temporary works, site activity, and vehicular movement within and around the subject site. Vehicular movement may increase in the immediate area, and temporary vertical elements such as cranes, scaffolding, site fencing, gates, plant and machinery etc., will be required and put in place. Most of the construction impacts will be temporary, and may include the following:

- Site preparation works and operations (including tree protection measures as appropriate);
- Site excavations and earthworks;
- Site infrastructure and vehicular access;
- Materials storage, spoil heaps etc;
- Construction traffic, dust and other emissions;
- Temporary fencing/hoardings, site lighting and site buildings (including office accommodation);
- Cranes and scaffolding;

Where trees are to be felled, or hedgerows cleared, these impacts will be permanent, however any proposed new planting will offset such effects, increasingly so as the proposed development matures.

### *Operational Phase*

The designed scheme seeks to consolidate a key part of the urban plan, and harmonise and integrate the development within the existing landscape and the broader urban environment, in line with the Dublin City Development Plan 2022-2028, the Park West and Cherry Orchard LAP, and associated policies and objectives. It must do this whilst adhering to national planning policy which seeks the densification and the provision of increased height on appropriate urban sites. The design rationale and detail employed seeks to mitigate potential negative effects on the landscape character and visual amenity of the area by:

- Establishing an integrated relationship between the proposed development and surrounding buildings, infrastructure and the broader urban landscape beyond, incorporating aspects of current and emerging trends in built-form, scale, texturing, colour and materials;
- The insertion, positioning and detailed modelling of the buildings, in order to assist in the appropriate visual assimilation of their mass
- Appropriate architectural detailing to assist in the integration of the external building facades –including the modulation of openings and fenestration;
- Rationalisation of all services elements and any other potential visual clutter and its incorporation internally within building envelopes (as far as practically possible);
- Simplification and rationalisation of the proposed roof lines, including green roofs
- Use of appropriate materials in the architectural expression of the buildings. In this instance, brick is used in the facades across the scheme, with variation in colour, pattern, texture and tone occurring in the individual character areas or emphasising specific parts of facades. This approach reinforces the articulation of the massing of the blocks, as well as lending importance and interest to specific areas.
- The provision of community uses within the development, including public open space and associated amenities, in turn combining with internal cultural spaces.
- The provision of secure communal spaces with each residential block.
- Sustainable approach to drainage and biodiversity
- Detailing in the architectural and landscape design to mitigate wind and shadow effects to create good microclimates.

In terms of potential visual impacts, whilst the proposed scheme is not uncharacteristic within the broader context, there is a clear change of building scale between the relatively greenfield site and what is proposed. The taller scale of the proposed buildings does make it potentially more visible from the

immediate environs and further afield. Sensitivities may well be somewhat dulled by the degraded nature of the site and the expectation of substantial new buildings and infrastructure. However the quality of the proposed building and their setting offers the a coherent and vibrant completion of this quarter. The potential for a measure of visual impact, experienced by people visiting, living in, or using these areas, is therefore reasonably high. The selected viewpoints for the preparation of photomontages takes this into account by taking views from corresponding locations.

#### *Cumulative Impact*

The cumulative effects are generated by schemes in the context of the Park West Cherry Orchard Local Area Plan. It is clear from the assessment that the gap sites are causing urban dereliction and antisocial behaviour, with a notable effect on the quality of the public realm. The granting of schemes and the completion of permitted development will further consolidate the ambitions of the LAP and SDRA4 of the Dublin City Development Plan. As schemes are permitted following national, regional and local guidance, it is fair to assume that the quality of design remains appropriate. In that regard, the generation of a good senses of place and innate wayfinding in the streetscape, the provision of public realm and activation of civic and public space is seen in a positive light. Increasing the population and amenity in proximity to public transport, and connecting it through green infrastructure to the local area, should be a positive way to make new, integrated communities. The cumulative effects are therefore seen as **moderate** and **positive**

#### *Mitigation*

##### *Construction Phase*

The Construction Management Plan to be prepared by the appointed contractor, and agreed with the Local Authority prior to the commencement of any construction works, will deal with all issues related to the construction, delivery and management of the scheme during the construction stage and will ultimately include details on the following:

- Daily and weekly working hours;
- Agreed haul routes for incoming materials;
- Licensed hauliers to be used;
- Disposal sites;
- Travel arrangements for construction personnel;
- Appropriate on-site parking arrangements for construction personnel to prevent overspill parking on the local road network;
- Temporary construction entrances to be provided;
- Wheel wash facilities if required;
- Road cleaning and sweeping measures to be put in place if required;
- Temporary construction signage to be put in place and maintained.

The planning application includes an Outline Construction Management Plan, prepared by Waterman Moylan Consulting Engineers, which outlines a range of construction phase mitigation measures, many of which are relevant to the reduction of the temporary impacts on the landscape and visual environment during the construction phase. This Outline Construction Management Plan forms the basis for the required measures to be included in the appointed Contractor's Construction Management Plan. As such it references construction phase mitigation measures which are relevant to the assessment of Landscape and Visual Impact.

Initially the erection of site hoarding and hedgerow/ tree protection measures will be completed, site access points established, and site accommodation units placed. Early in the construction period, demolitions, surface/topsoil stripping, tree/shrub removal and the required excavations for the

construction of building foundations will commence. The erection of cranes and/or scaffolding as appropriate will take place and temporary site lighting will be established. Removal and/or storage of excavated materials from site and the delivery of construction materials will generate increased traffic within, to and from the site. As construction progresses over the construction period, impacts will vary with the on-going business of construction, delivery and storage of materials, the erection of the buildings, etc. Mitigation measures have been proposed to minimise the impact of the construction works on the site environs and generally where this occurs, they are effective in limiting construction phase effects.

The landscape and visual effects of these changes are most likely to be experienced as adverse effects by adjacent residents and users of Park West Avenue and Cedarbrook Way.

Generally, landscape and visual effects during the Construction Phase are likely to vary from **slight and neutral to moderate and negative**, depending on the stage of construction, and the intensity of site activity. The construction impacts will be of **short-term** duration.

#### *Operational Phase*

The design rationale and detail employed seeks to mitigate potential negative effects on the landscape character and visual amenity of the area by:

- Establishing an integrated relationship between the proposed development and surrounding buildings, infrastructure and the broader urban landscape beyond, incorporating aspects of current and emerging trends in built-form, scale, texturing, colour and materials;
- The insertion, positioning and detailed modelling of the buildings, in order to assist in the appropriate visual assimilation of their mass
- Appropriate architectural detailing to assist in the integration of the external building facades –including the modulation of openings and fenestration;
- Rationalisation of all services elements and any other potential visual clutter and its incorporation internally within building envelopes (as far as practically possible);
- Simplification and rationalisation of the proposed roof lines, including green roofs
- Use of appropriate materials in the architectural expression of the buildings. In this instance, brick is used in the facades across the scheme, with variation in colour, pattern, texture and tone occurring in the individual character areas or emphasising specific parts of facades. This approach reinforces the articulation of the massing of the blocks, as well as lending importance and interest to specific areas.
- The provision of community uses within the development, including public open space and associated amenities, in turn combining with internal cultural spaces.
- The provision of secure communal spaces with each residential block.
- Sustainable approach to nature based drainage and to enhance biodiversity
- Detailing in the architectural and landscape design to mitigate wind and shadow effects to create good microclimates.

The proposed development has been designed to introduce a consolidated urban quarter and greater connectivity to and through the site by way of the integration with the existing network of routes in the area, taking into account the potential for future phases through a development plan, and in respect of the Local Area Plan. Landscape effects created by such new development on this compartmentalised site are relatively localised and will not be notably evident in the wider landscape.

The significance of the landscape effects resulting from a **low** landscape sensitivity, and a **high** magnitude of change, is **moderate**. Qualitatively the landscape effect is **positive**.

### Residual Impact Assessment

The degree of impact is seen as **moderate** in the context of a baseline of a brown and greenfield site with appropriate zoning and a landscape character that is not particularly sensitive in this locality.

The design of the scheme produces a neutral to **positive** quality in this context.

### Monitoring

The success of the proposed development is dependent on the proposal being properly executed as approved.

During construction, daily inspections of the site perimeter will be undertaken to ensure hoardings are maintained to a high standard.

Detailed agreement on finishes and materials to be employed needs to be ensured through the provision of and on-going adherence to reference samples provided on site for the duration of the construction works and defects period.

During operation, the proposed soft landscape works will need to be maintained and managed especially over the initial period after planting, in order to ensure they are successfully established.

## Land, Soils, and Geology

A technical assessment included in full as Chapter 11 of this Report has been carried out generally in accordance with the relevant guidance. The assessment was broken down to phases, assessing the proposed development and baseline conditions, direct and indirect site investigations, assessment and refinement of the design layout and strategies against environmental risks and impacts, application of mitigation measures, review of residual risk, and final completion of the full EIAR Chapter 11.

The Site Investigation (SI) report has generally described both sites as a mix of green field and brownfield lands. Made ground from their previous use as construction compounds has been identified. The SI report further advises that soil conditions are poor in respect to surface water infiltration.

No artificial or natural surface water networks are present on either of the sites. Site 4 previously had 2 ditches running through from the west and southwest, merging on-site, and flowing out to the east, but these ditches have been cut off by construction to the west of the M50 and to the east by residential development. The ditches are now considered static ditches, meaning that only local rainfall on the grasslands beside the ditches flows to them, and there is no means for the rainfall to flow out, and is instead eventually absorbed by the ground over time.

Geological Survey Ireland (GSI) produces a wide range of datasets, including bedrock geology mapping. The mapping indicates that the sites lie within the Lucan Formation. The Aquifer mapping indicates the location as having a designation of LI, which represents Locally Important Aquifer qualities, where the bedrock is moderately productive only in local zones. The same map viewer series did not indicate the presence of any groundwater wells or springs in the immediate vicinity of the site. The groundwater vulnerability in the vicinity of the proposed sites was also examined by referencing the Geological Survey of Ireland. From the GSI groundwater vulnerability map, the sites lie within an area of high groundwater vulnerability.

The results of the site investigations on the subsoil indicated topsoil in all the exploratory holes and was present to a maximum depth of 0.3m below ground level (BGL). On Site 4 the Made Ground deposits were encountered beneath the Topsoil/Surfacing and were present to depths of between 0.65m and 1.1m BGL. On site 5 the Made Ground deposits were deeper and encountered to depths of up to 3.2m BGL. Cohesive deposits were encountered beneath the Made Ground and were described typically as *brown sandy gravelly CLAY with occasional cobbles and boulders*. The boreholes found Medium Strong to Very Strong laminated LIMESTONE interbedded with Mudstone. Rare visible Pyrite veins were noted which are typically present within the Calp Limestone. The depth to rock varies from 2.3m BGL to a maximum of 5.3m BGL. Groundwater strikes were recorded during the investigation. Laboratory testing (particle size distribution) confirmed the deposits are well graded for sands and gravels. Chemical laboratory testing found the pH to be neutral and the water-soluble sulphate result to be low.

As part of the environmental laboratory testing no asbestos fibres were found and the material excavated from site is likely to be considered as inert waste, based on the limitations of the site investigation report.

The primary residual impacts from the construction phase, with the protective measures noted in Chapter 11 in place during the excavation works, any potential impacts on soils and geology in the area will not have significant adverse impacts, and no significant adverse impacts on the soils and geology of the subject lands are envisaged.

The residual risk associated with site clearance, excavation and construction are considered to be negative, slight (not significant) local, likely and permanent.

The residual impacts during the operation stage will be minor permanent regrading of the sites in line with the ground levels proposed for the buildings and roads. Open spaces will be regraded to meet these buildings and roads.

Reinstatement measures in relation to soils consist primarily of the re-soiling of open areas / landscaping and the replanting of these areas. No post development reinstatement works will be required.

On completion of the construction phase and following replacement of topsoil and implementation of a planting programme, no further impacts on the soil are envisaged.

SuDS measures, including permeable paving and infiltration drains, will assist with cleaning surface water runoff while replenishing the natural ground water table and their impact will be positive, slight (not significant), likely and permanent.

## Water

A technical assessment included in full as Chapter 12 of this Report has been carried out generally in accordance with the relevant guide. The assessment was broken down to phases, assessing the proposed development and baseline conditions, direct and indirect site investigations, assessment and refinement of the design layout and strategies against environmental risks and impacts, application of mitigation measures, review of residual risk, and final completion of the full EIAR Chapter 12.

The Site Investigation (SI) report has generally described both sites as a mix of green field and brownfield lands. Made ground from their previous use as construction compounds has been identified. The SI report further advises that soil conditions are poor in respect to surface water infiltration.

No artificial or natural surface water networks are present on either of the sites. Site 4 previously had 2 ditches running through from the west and southwest, merging on-site, and flowing out to the east, but these ditches have been cut off by construction to the west of the M50 and to the east by residential development. The ditches are now considered static ditches, meaning that only local rainfall on the grasslands beside the ditches flows to them, and there is no means for the rainfall to flow out, and is instead eventually absorbed by the ground over time.

As noted above there are no ditches, streams or rivers flowing through the sites, nor are they served by any artificial surface water networks. There is a static ditch located on Site 4 as discussed above. Rainfall is absorbed through the soil. In the case of heavier rainfall events, there is potential that rainfall to the sites, may flow over the boundaries to the adjacent roads and enter the road drainage gullies. This owes to the fact that the SI report has determined the sites have relatively poor infiltration capacities.

The site lies within the catchment of the Blackditch Stream, which outfalls to the Camac River, which has an ultimate outfall to the River Liffey.

A review of the EPA's (Environmental Protection Agency) website database classifies the ground waterbody (2016-2021) status as good. The national Aquifer Bedrock Map prepared by the Geological Survey of Ireland was consulted and the sites lie in an area which has a designation of LI, which represents Locally Important Aquifer qualities, where the bedrock is moderately productive only in local zones. The same map viewer series didn't indicate the presence of any groundwater wells or springs in the immediate vicinity of the site. The groundwater vulnerability in the vicinity of the proposed sites was also examined by referencing the Geological Survey of Ireland. From the GSI groundwater vulnerability map, the sites lie within an area of high groundwater vulnerability.

A Flood Risk Assessment has been prepared by Waterman Moylan Engineers and has been submitted under a separate cover. This Flood Risk Assessment has been carried out in accordance with the DEHLG/OPW Guidelines on the Planning Process and Flood Risk Management published in November 2009. The assessment identifies and sets out possible mitigation measures against potential risks of flooding from various sources. Sources of possible flooding include coastal, fluvial (river), pluvial (direct heavy rain) and groundwater. With the implementation of mitigation measures for the identified risks, the residual risk from all sources of flooding is considered to range from low to negligible.

SuDS measures, including permeable paving and infiltration drains, will assist with cleaning surface water runoff while replenishing the natural ground water table and their impact will be positive, slight (not significant) likely, and permanent, and assist in the WFD's aim of achieving overall Good status in the catchment.

Due to the proposed remedial measures outlined in Chapter 12 no significant adverse residual impacts are expected to arise during the construction phase of the proposed development. There will be a minor increase in water demand and foul water outflow during the period of construction.

Due to the proposed mitigation measures outlined in Chapter 12 many of the potential impacts will not arise during the operational phase of the proposed development on surface water and groundwater quality.

Surface water discharge from the site will be restricted by means of attenuation to below the current greenfield runoff rate. The installation of a Sustainable Urban Drainage System will ensure surface water runoff will be of high quality before discharge to the local surface water network.

There will be an increased water demand and an increased foul flow volume generated for the proposed development. Irish Water have confirmed in their Confirmation of Feasibility Letter that the existing network has sufficient capacity to cater for the development.

## Population and Human Health

This chapter of the EIAR assesses any potential impacts the Development may have on Population and Human Health in accordance with the requirements set out within the EIA legislation and guidance on preparation and content of EIAR.

The assessment of potential impacts of the proposed development on the Population and Human Health of residents in the Study Area are based on local population information sourced from the Central Statistics Office (CSO) Census data captured in the previous Censuses of 2016 and 2022. Data sets analysed in this assessment include Population and housing data, data on human health, economic activity, and employment data. To provide further context to the social and demographic assessment, a similar data analysis exercise, at a broader scale, was performed on the Local Electoral Area (LEA) for the site, Dublin City and the State. Furthermore, an assessment of the current provision of social infrastructure was conducted through spatial analysis.

The construction of the proposed development may give rise to short term impacts to the locality, such as construction traffic and surface contaminants, dust, exhaust emissions and noise. Residents of homes situated on Cedar Brook Avenue (east of the site), Park West Avenue (south of the site), Barnville Park (southeast) and St Oliver's Park adjacent to Cloverhill Road (north of the site) are likely to experience effects arising from the Development – construction and / or operational phase. Where applicable, these impacts have been considered in the relevant chapters of the EIAR and will be minimised or mitigated where appropriate. It is unlikely that these impacts will be of a scale to wither encourage people to move from the area or discourage people from moving to the area.

The operational phase of the Development will result in the provision of 1,115 no. residential units, a creche facility, retail supermarket, independent retail / commercial units, community and art / cultural uses and significant public open space across 4 phases. This will provide for approximately 3,122 persons, based upon an estimated occupancy rate of 2.8 persons per unit. The uplift in the local population generated by the proposed development will contribute to the compact development targets set out in the National Planning Framework i.e., at least 50% of all new homes within or contiguous to the existing built-up area in Dublin and 30% in other settlements. On consideration of the above, the development will have a significant permanent positive impact on the population and household in the area. The wide-ranging typology of the proposed residential units will cater to a wider cohort of persons.

This Chapter sets out the slight positive impact on local economic activity. The construction of the proposed development is likely to have a slight positive effect on the local economy. The development in the short term will provide for increased construction related employment. During the construction phase, businesses directly involved in the sector and those indirectly involved in the supply chain will generate economic benefits that will provide a positive net impact on the economy.

The operational phase of the proposed development will provide accommodation for approximately 3,122 persons, based upon an estimated occupancy rate of 2.8 persons per unit. Considering the demographics of the area as of 2022, the population aged 15-64 years is c. 70%, therefore, the approximate number of people that could be in a position to work (within Phase 1 of the scheme), is c. 2185 persons. The total population over 15 years, that are 'At work' in the study area is c. 54%, on the basis of which it can be expected that around 1,180 persons may be in a position to be working when the scheme is fully delivered and occupied. This increase in occupancy in the area will enhance local spending power and will contribute to a critical mass of population to support a wide range of employment generating opportunities. The Proposed Development will be a positive effect for the local area and will provide a slight positive significant impact to the overall economy of the local area through indirect socioeconomic benefits to local services, including shops, restaurants, cafes within the locality. The proposed retail supermarket will also provide further services and employment opportunities, with the community and art / cultural units fulfilling requirement for any work / event spaces including other local activities.

Community and Social amenities such as childcare services, schools, healthcare facilities, sports and recreational facilities, retail services and religious institutions have also been identified and assessed as part of this planning application. Some scarcity in the availability of retail, community and arts / cultural facilities were identified and sufficiently provided for, to be delivered within the proposed scheme. This will cater to the needs of the future and existing residents of the local area surrounding the Development Sites. Additionally, a creche facility of c. 672 sqm GFA has been provided with a capacity for c. 135 no. child spaces and is considered sufficient to cater to the future demand generated within the Development.

It is also noted that the proposed scheme will be served by a high-frequency public transport with the delivery of the DART+ South West project on the currently existing DART line to the south of the Development Sites 4 and 5. The DART + South West is the second of the infrastructural projects of the DART+ Programme expected to be delivered. The Rail Order Application for this has been submitted for statutory approval for its design, as of March 2023. It is expected that once this project is delivered, it will increase the train capacity to double the current (12) trains per hour per direction and increase passenger capacity from the current peak capacity of approximately 5,000 passengers per hour to around 20,000 passengers per hour per direction. The route map proposed for the DART + South West extension also illustrates the new route passing adjacent to the Development Sites 4 and 5, through the Park West and Cherry Orchard train station. The deliver of this project in tandem with the proposed development will have a permanent positive impact on the Cherry Orchard local area encouraging people to move into the area to live and work.

The assessment concludes that the Development will provide employment, accommodation, childcare facilities, retail / commercial facilities, and community and art / cultural facilities which will be a significant long-term positive impact for the local area and the overall economy.

An overview of the impact assessment has been provided in the below table:

Table 2 Summary of Impacts / Significance of Effects

Characteristics	Significance of Effects / Impact Assessment
<b>Construction Phase</b>	
Human Health	Slight or Non-Significant Impact
Socio-Economic	Slight positive, short-term impact; Non-Significant Impact
Air Quality and Climate Factors	Imperceptible, negative, short-term, non-significant impacts
Noise and Vibration	Negative, slight to moderate and brief to short-term construction noise impact; Non-Significant Impact
Water Quality	Negative, slight (not significant), likely and short-term in nature
Traffic and Transport	No significant impact
Landscape and Visual	Slight and neutral to moderate and negative
<b>Operational Phase</b>	
Human Health	Slight positive, long-term impact; no significant negative impact
Population	Positive permanent significant impact
Socio-Economic	Slight positive significant impact
Air Quality and Climate Factors	Long-term, neutral, imperceptible, and non-significant
Noise and Vibration	No significant negative impact
Traffic and Transport	Slight positive permanent impact; no negative impact
Landscape and Visual	No significant negative impacts
Community and Social Amenities	Positive significant and long-term impacts

## Material Assets – Traffic and Transport

### Introduction

This chapter of the Environmental Impact Assessment Report (EIA) has been prepared by Waterman Moylan on behalf of the Land Development Agency (LDA) and provides an assessment of the impact that the proposed development at Cherry Orchard Point, Park West Avenue, Dublin 10 will have on traffic and transportation infrastructure and network in the surrounding area.

A Traffic & Transport Assessment (TTA) was also prepared by Waterman Moylan in September 2023 in compliance with Section 2.3 of Appendix 5: *Transportation and Mobility Technical Requirements* of the Dublin City Development Plan 2022 – 2028. Further detail on the transportation aspects of the proposed development can be found in the TTA.

### Methodology

In common with established practice and other transportation studies and reports, this chapter of the EIA assesses the impact of the proposed development on the transportation network during the AM Peak.

### Phasing

It is proposed to construct the development in four phases with Phases 1, 2 and 4 on Site 4 and Phase 3 on Site 5.

### Project Timescale

For the purpose of this EIA, the Base Year has been taken as 2022, the Opening Year as 2027, the Design Year as 2032 (Opening Year + 5) and the future Year as 2042 (Opening Year + 15).

### Location and Description of Site

The two sites for the proposed development (part of the overall the Park West – Cherry Orchard Local Area Plan), Site 4 (M50 / Cedarbrook Avenue) and Site 5 (Barnville), are located east and west of Park West Avenue, Dublin 10, immediately to the north of the Park West & Cherry Orchard Railway Station. The LAP extends to an area of 267.5 ha of which Sites 4 M50-Cedarbrook Avenue and Site 5 Barnville extend to a total of 13.0 ha.

At the time of writing in September 2023, the site comprised undeveloped greenfield sites. Both sites were unoccupied with no traffic movements in or out.

### Access by Walking and Cycling

Overall, walking and cycling access to the various services and amenities in the area of the subject site is good for some facilities but not so good for others.

Access is good to the rail based public transport serving an east -west corridor. Access is moderate to the bus based north-south corridor.

Access also is good to local amenities and community services.

However, access is not good to retail or other commercial services with the nearest retail provision located to the northeast in the Ballyfermot area at a walking distance of 20 – 40 minutes or a cycling distance of up to 10 minutes.

The proposed supermarket at Cherry Orchard Point is expected to make good this deficit.

### Proposed Development – Phase 1

The proposed development on Site 4 Phase 1 will comprise 708 residential apartments, supermarket, retail units, creche and community facilities.

Car parking with a total of 444 number spaces comprising 328 number spaces at surface level for residents (including 17 number spaces for disabled), 92 number spaces at lower ground level for retail (including 4 number spaces for disabled), 7 number retail spaces on Park West Avenue (including one loading bay), 6 number surface spaces for the Creche and 11 number spaces for car sharing (GoCar) will be provided. Access will be from Park West Avenue.

222 number spaces will be equipped with fully functional EV Charging Point(s) and the remaining 222 spaces designed to facilitate the relevant infrastructure to accommodate future EV charging.

A total of 22 spaces will be provided for motorcycle parking (5%).

A total of 1,618 number bicycle parking spaces with 1,552 number spaces for residents and visitors at the apartments and 66 number spaces for staff, customers and visitors at the supermarket, retail, creche and community.

The public realm around the site will incorporate an upgrade of the pedestrian and cycle environment.

The development includes all associated infrastructure to service the development including access junctions, footpaths and cycle paths together with a network of watermains, foul water drains and surface water drains.

The layout of the proposed development is illustrated on the drawings included with the planning application.

### Future Development – Phase 2

Future Phase 2 development on Site 4 of Cherry Orchard Point is expected to comprise 53 residential houses and 100 residential apartments. A total of 105 number car parking spaces and a total of 210 number bicycle parking spaces will also be provided. The preliminary Phase 2 site layout can be seen on the drawings included with the planning application.

### Future Development – Phase 3

Future Phase 3 development on Site 5 of Cherry Orchard Point is expected to comprise 275 residential apartments, retail and community facilities. A total of 132 number car parking spaces and a total of 544 number bicycle parking spaces will also be provided. The preliminary Phase 3 site layout can also be seen on the drawings included with the planning application.

### Future Development – Phase 4

Future Phase 4 development on Site 4 of Cherry Orchard Point is expected to comprise 16,300 sqm Commercial. A total of 82 number car parking spaces and a total of 300 number bicycle parking spaces will also be provided. The preliminary Phase 4 site layout can also be seen on the drawings included with the planning application.

### Car Parking - Phase 1

Car parking with a total of 444 number spaces comprising 328 number spaces at surface level for residents, 92 number spaces at lower ground level for retail, 7 number retail spaces on Park West Avenue, 6 number surface spaces for the creche and 11 number spaces for car sharing (GoCar). Access will be from Park West Avenue.

The provision of the 444 spaces will include includes 22 spaces for disabled, 222 spaces with charging facilities for electric vehicles (20%) and 222 spaces designed to facilitate the relevant infrastructure to accommodate future EV charging.

The proposed car parking ratio for the residential development is 0.5 space per apartment.

Car parking for the supermarket has been increased from the maximum of 20 spaces based on the City Development Plan to 92 spaces to cater for residents in the immediate surrounding area and the ongoing viability of a supermarket at Cherry Orchard Point.

### Car Park Management

Permits for access by residents to the 276 private spaces will be issued by the Management Company on a first come first served basis with not more than one permit per unit. Operation of the 59 on-street spaces including Pay & Display and permits will be managed by Dublin City Council.

For residents who require occasional car use without the need to own a vehicle, 11 spaces will be permanently allocated for car sharing with vehicles supplied by GoCar or similar company.

### **Cycle Parking – Phase 1**

A total of 1,618 number bicycle parking spaces with 1,552 number spaces will be provided for residents / visitors and 66 number spaces for staff / customers.

The public realm around the site will incorporate an upgrade of the pedestrian and cycle environment.

The development includes all associated infrastructure to service the development including access junctions, footpaths and cycle paths together with a network of watermains, foul water drains and surface water drains.

The layout of the proposed development is illustrated on the drawings included with the planning application.

### **Servicing**

Deliveries to and waste collection from the supermarket in Site 4 will take place at the dedicated service yard located at the supermarket.

Deliveries to the retail units in Site 4 will take place from the loading bay on Park West Avenue. The operational hours proposed for the loading bays are 07h00 – 19h00 Monday – Saturday.

The following short stay transport related activities by residents will be facilitated off the internal road network:

- Drop Off / Collection by car or taxi.
- Moving In / Moving Out including furniture delivery and removal.
- Courier / Parcel Collections and deliveries.
- Accessible spaces for disabled parking (22 spaces).

### **Roads and Streets**

The proposed development is located on either side of Park West Avenue between the R134 Nangor Road and Ballyfermot Road / Coldcut Road.

Park West Avenue is a wide single carriageway road with a north – south alignment and a posted speed limit of 50 kph. It is linked to Cloverhill Road via a roundabout junction at its northern end and to the R134 Nangor Road via signalised crossroads at its southern end. Park West Avenue has a 9.0 metre wide carriageway with footpaths and cycle tracks on both sides. Speed ramps are provided for traffic calming but there are no parking restrictions.

### **Traffic Conditions**

The Park West - Cherry Orchard LAP 2019 noted that the road network serving Park West – Cherry Orchard experiences some traffic congestion during peak hours in areas such as Cloverhill Road, Park West Avenue and Le Fanu Road with the highest delays occurring where these roads connect to regional roads such as Ballyfermot Road and the New Nangor Road.

A traffic survey in November 2022 recorded a 24-hour traffic flow on Park West Avenue of some 11,004 vehicles per day and a 24-hour traffic flow on Barnville Walk of some 4,092 vehicles per day.

### **Bus Services**

Bus services in the area of the proposed are a combination of historic services operated by Dublin Bus and new services are provided under the auspices of Bus Connects. Dublin Bus Routes 79 and 79a which formerly served the Park West Avenue, and the Park West / Cherry Orchard Station were replaced by Routes G1 and 60 in October 2022.

Bus stops are located on Park West Avenue, Barnville Walk and Cedar Brook Way.

### **Rail Services**

Park West & Cherry Orchard which opened in 2008, is an intermediate station on the Kildare Commuter Line with regular commuter and inter-city services including stopping services from Portlaoise and Newbridge to Heuston Station and from Hazelhatch & Celbridge to Grand Canal Dock.

The journey time to Heuston by rail is some 9 - 11 minutes and the journey time to Grand Canal Dock is some 40 – 45 minutes. There are 5 existing services from Park West and Cherry Orchard to the City Centre during the AM Peak Hour 8 – 9.

At other periods outside the AM Peak, rail services at Cherry Orchard & Park West are provided between Hazelhatch and Grand Canal Street at hourly intervals.

The Park West - Cherry Orchard LAP 2019 noted that rail users at Park West Cherry Orchard Station represent a very low modal split of 2%. This is despite its central location and despite 2,550 people having access to the station within a 15-minute walk.

The DART Expansion Project proposed by Irish rail will deliver new electrified rail services between the existing DART network in the City Centre City Centre and Hazelhatch. The service through Park West & Cherry Orchard will provide an increased service frequency and enhanced passenger capacity.

An application for a Railway Order for DART+ South West was lodged with An Bord Pleanála in March 2023.

### **Pedestrian and Cycle Facilities**

Existing pedestrian facilities in the area of the subject site comprise footpaths on both sides of Park West Road, Barnville Walk, Barnville Place, Cedar Brook Walk and Cedar Brook Way.

There are no footpaths on Cedar Brook Avenue which is primarily a residential parking area.

Pedestrian crossing facilities are provided at the following locations:

- Junction 1: Uncontrolled Crossing (Cloverhill Road / Park West Avenue)
- Junction 4: Signalised Crossing (Park West Avenue / Barnville Walk).

The existing cycle facilities in the area of the subject site comprise cycle tracks on both sides of Park West Road, partly on-road and partly off-road.

This development provides for upgraded footpaths and cycle tracks on the Park West Avenue together with pedestrian and cycle phases in the signalised junction at Barnville Walk.

There are a number of new pedestrian or cycling facilities proposed in the area of the subject site including: -

- New / improved off road pedestrian and cycle facilities along Ballyfermot Road as part of the Bus Connects Liffey Valley to City Centre Core Bus Corridor works.
- New / improved pedestrian and cycle facilities within the adjacent City Edge development area immediately to the east and south of the subject site

- New cycle facilities as part of the Grand Canal Greenway.

### Cumulative Impact

This chapter of the EIAR addresses all committed developments within the vicinity of the site including sites which have previously been granted planning permission but which are yet to become operational as well as any planning applications that have been submitted but have yet to be determined.

In addition to the trips that will be generated by the future development of Sites 4 and 5, the trips that would be generated by the approved Park West SHD development on Site 6 have been included in this assessment.

### Contiguous Development on Site 6

Planning permission for a residential development of 750 units and 552 car parking spaces (including 14 car sharing) on a 9.4 ha site at Park West, Dublin 12 was granted by An Bord Pleanála to Greenseed Ltd in June 2022 subject to 29 conditions (ABP Reg Ref 312290-21). The site included the Aspect Hotel.

### Construction Traffic Access Routes

Construction traffic routes to the proposed development are facilitated by the high standard of the existing road network in the surrounding area.

The primary construction access route is expected to be from the R134 Nangor Road via Park West Avenue. The secondary construction access would be from Ballyfermot Road / Coldcut Road via Cloverhill Road and Park West Avenue.

At the time of writing in September 2023, both of the proposed construction access routes are fully operational and open to traffic including road markings and traffic signals.

### Traffic Impact – Construction Stage

During the construction stage of the proposed development, some construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

The day-to-day traffic movements associated with the construction activities are predicted to be less than 3.0% of the existing traffic movements on Park West Avenue. As this increase is less than the benchmark of 10% set out in the Traffic and Transport Assessment Guidelines published by TII in May 2014, no further transportation assessment of the road network is required for the construction stage.

The number of construction vehicle movements is low compared to the number of vehicular trips expected to be generated by the proposed development during the operational phase. It should be noted that most of such trips will occur outside of the traditional peak hours, and it is not considered that this level of construction traffic would result in any operational problems.

Having regard to the predicted impacts described in this chapter, it can be concluded that no significant impact on roads and traffic will arise from the Construction Stage of the proposed development at Cherry Orchard Point.

### Traffic Impact –Operational Stage

The traffic impact from the proposed development during the Operational Stage is predicted to be 10% or greater at all junctions included in the traffic modelling undertaken for this project.

However, the results of the assessments undertaken indicate that all assessed junctions, except Junctions 4 and 7, will operate within capacity with the proposed development in place in the Opening Year 2027 through the Design Year in 2032 to the Future Year 2042.

For the DO-NOTHING scenario 2027, Junction 7 is indicated to operate marginally above capacity in the PM Peak Hour even without the inclusion of the proposed development trips. It is likely Junction 7 will require upgrading, most likely to a signalised crossroads, about 2027 with or without development at Cherry Orchard Point.

For the DO-NOTHING scenario, Junction 4 is predicted to operate within capacity and will continue to do so for during 2027, 2032 and 2042, should the proposed development not take place.

For the DO-SOMETHING scenarios, Junction 4 is predicted to operate above capacity during 2027, 2032 and 2042 in both peak hours with the inclusion of the proposed development trips.

Overall, the impact of the proposed development at Cherry Point on the surrounding transportation network will not be significant.

Six of the eight road junctions assessed will continue to operate satisfactorily up to 2042 with the development in place. The existing roundabout at the junction of Park West Avenue and Park West Road is likely to reach capacity in 2027 with or without the proposed development. As a result, it is likely to be converted to a signalised crossroads about that time.

The proposed signalised crossroads at the junction of Park West Avenue and the Site Access is predicted to operate over capacity for short periods during the AM and PM Peaks from 2027 as a consequence of compliance with the design requirement of DMURS. The adoption of an alternative design for traffic movements albeit with longer crossing times for pedestrians and cyclists could bring the junction within capacity for 2027, 2032 and 2042.

Having regard to the predicted impacts described in this chapter, it can be concluded that no significant impact on roads and traffic will arise from the Operational Stage of the proposed development at Cherry Orchard Point.

### Public Transport Impact

In common with established practice and other transportation studies and reports, this chapter of the EIAR assesses the impact of the proposed development on the rail service during the AM peak.

The projected demand from the proposed development is projected to be well within the existing and proposed capacity of the public transport services, both rail and bus serving the surrounding area.

Having regard to the predicted impacts described in this chapter, it can be concluded that no significant impact on public transport services will arise from the Operational Stage of the proposed development at Cherry Orchard Point.

### Summary

This chapter of the EIAR demonstrates that the proposed development will be consistent with the objectives for Transport and Mobility set out in the Dublin City Development Plan 2022 – 2028 and the Park West Cherry Orchard Local Area Plan 2019.

No significant impact on the existing and proposed traffic and transport in the surrounding area is predicted to arise from the Construction or Operational Stages of the proposed development at Cherry Orchard Point.

## Material Assets – Waste Management

### Introduction

AWN Consulting undertook the waste management assessment. The receiving environment is largely defined by Dublin City Council (DCC) as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

### Baseline Environment

There is currently no waste generated at the proposed development site.

### Potential Impacts of the Proposed Development

#### Construction Phase

During the construction phase the mismanagement of waste, including the inadequate storage of waste, inadequate handling of hazardous waste, the use of inappropriate or insufficient segregation techniques, and the use of non-permitted waste contractors, would likely lead to negative impacts such as waste unnecessarily being diverted to landfill, litter pollution which may lead to vermin, runoff pollution from waste, fly tipping and illegal dumping of waste. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant** and **negative**.

#### Operational Phase

The potential impacts on the environment during the operational phase of the proposed development would be caused by improper, or lack of waste management. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant** and **negative**.

### Mitigation and Residual Effects (Post-Mitigation)

#### Construction Phase

During the construction phase, typical construction waste materials will be generated which will be source segregated on-site into appropriate skips/containers, within designated waste storage areas and removed from site by suitably permitted waste contractors as required, to authorised waste facilities, by appropriately licensed waste contractors. While the accurate keeping of waste records will be undertaken. All waste leaving the site will be recorded and copies of relevant documentation maintained.

This will all be overseen by the main contractor, who will appoint a construction phase Resource Manager to ensure effective management of waste during the excavation and construction works. All construction staff will be provided with training regarding the waste management procedures on site.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (Appendix 15.1) and Chapter 15 during the construction phase, this will ensure that the effect on the environment will be **short-term, neutral** and **imperceptible**.

#### Operational Phase

During the operational phase, waste will be generated by the residents and commercial tenants. Dedicated Waste Storage Areas (WSAs) have been allocated throughout the development for the use of the residents and commercial tenants. The WSAs have been appropriately sized to accommodate the estimated waste arisings from the development. The WSAs have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection areas by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared by AWN and is included as Appendix 15.2. The proposed development will give rise to a wide variety of waste streams during the operational phase, i.e. when the project is completed, open and occupied. Operational waste will be generated on

a daily basis by the operator including cardboard, plastic, paper, glass, dry mixed recyclables, mixed non-recyclables, cooking oil, lightbulbs, batteries, WEEE waste, and organic waste.

All recyclable materials will be segregated at source where possible to reduce waste contractor costs and ensure maximum diversion of materials from landfill in line with the development OWMP. This strategy will be supplemented, as required, by the operator as required with any new information on waste segregation, storage, reuse and recycling initiatives that are subsequently introduced.

Provided the mitigation measures in the development OWMP (Appendix 15.2) and in Chapter 15 are implemented, and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, neutral** and **imperceptible**.

## Cumulative Impact of the Proposed Development

### Construction Phase

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place in the area. In a worst-case scenario, multiple developments in the area could be developed concurrently or overlap in the construction phase. Due to the high number of waste contractors in the DCC region, as provided from the National Waste Collection Permit Office and the EPA, there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all of the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate against any potential cumulative effects associated with waste generation and waste management. As such the cumulative effect will be **short-term, imperceptible** and **neutral**.

### Operational Phase

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current and potential developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate any potential cumulative impacts associated with waste generation and waste management. As such the cumulative effect will be a **long-term, imperceptible** and **neutral**.

## Interrelationships, Interactions, and Indirect Effects

This chapter deals with likely interactions between effects predicted as a result of the proposed development. The chapter has been prepared by KPMG Future Analytics in accordance with the requirements set out within the Planning and Development Regulations 2002 to 2022 and the EPA's Guidelines on Information to be Contained in Environmental Impact Assessment Reports (2022) to summarise the interactions and interrelationships between key factors identified and assessed.

Impact interactions and inter-relationships have been considered throughout in the preparation of the individual, topic specific chapters of this EIAR so that it can take into account the broader picture of how the proposed scheme may affect the various environmental media. All environmental topics are interlinked to a degree such that interrelationships exist on numerous levels. It is general practice, to evaluate interaction of effects as a matrix between effects and key factors assessed, accompanied by brief text describing the interactions identified. This chapter has been compiled to list in one location of all of the interactions identified in the assessment of impacts set out in Chapters 5 to 16 of the EIAR Main Report.

## Summary of Mitigation Measures and Residual Impacts

This chapter in the EIA provides a complete summary of mitigation measures and predicted residual impacts on the environment proposed in Chapters 5 to 15. The appointed contractor is required to adhere to the mitigation measure provided here to avoid or reduce significant effects and ensure sustainable development.

The EPA Guidelines on information to be contained in EIAs (2022) established four main strategies for mitigation of effects avoidance, prevention, reduction, and offsetting. Residual Impacts, according to the Draft EPA Guidelines (2022, p.88) are: - *“The final predicted effect / impact remaining after mitigation.”*

The project will be carried out in accordance with the Safety Health and Welfare at Work (Construction) Regulations 2013 and subsequent amendments. The mitigation risks for both construction and ‘in use’ risks will be considered by the design team. The design team will carry out risk reviews throughout design to ensure that the General Principles of Prevention are applied. Any residual risks will be documented in the Safety File issued on completion of project.

Additionally, the project will also follow the specific management plans prepared for the design elements which will define methodologies and requirement for management of risks to worker and the public, such as Waste Management Plans, Traffic and Environmental Managements Plans.

This chapter provides a detailed assessment of the mitigation measures and predicted residual impacts as follows:

- Air Quality and Climatic Factors
- Noise and Vibration
- Biodiversity
- Archaeological, Architectural and Cultural Heritage
- Landscape and Visual
- Land, Soils and Geology
- Water
- Population and Human Health
- Material Assets – Traffic and Transport
- Material Assets – Waste
- Material Assts – Utilities

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