

Intended for
Vantage Data Centers DUB11 Limited

Date
November 2022

Project Number
1620014883

VANTAGE DUBLIN DATA CENTER DUB13

VOLUME 2: LANDSCAPE, VISUAL AND BUILT HERITAGE IMPACT ASSESSMENT

RAMBOLL

Volume 2:

Landscape, Visual and Heritage Impact Assessment

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1 LANDSCAPE AND VISUAL

1.1 Introduction

1.1.1 This chapter of the EIA reports on the likely significant Landscape and Visual effects arising from the Proposed Development's demolition and construction and operation at Day 1 and Year 5 (for viewpoint 06 and 07).

1.1.2 The chapter describes the landscape policy context; the methods used to assess the potential impacts and likely effects; the baseline conditions within and surrounding the site; the likely landscape and visual effects taking into consideration embedded mitigation; if additional mitigation and enhancement is required; the significance of residual effects; and inter-project cumulative effects.

1.1.3 The chapter is supported by the following technical appendices in EIA Volume 2:

- Appendix 1.1:
 - Figure 1: Location Plan and Study Area;
 - Figure 2: Site Landscape Elements and Features;
 - Figure 3: ZTV and Viewpoint Locations;
 - Figure 4: Future Baseline - DUB 1 Landscape General Arrangement;
- Appendix 1.2: Viewpoint Photographs;
- Appendix 1.3: Day 1 of Operation Viewpoint Photomontages; and
- Appendix 1.4: Year 5 of Operation Viewpoint Photomontage for VP 06 and 07

1.2 Consultation

1.2.1 Landscape and visual scope for the EIA was discussed at an informal discussion at the pre-application meeting on 21 September 2022, with South Dublin County Council (SDCC), the Applicant and Ramboll. The proposed viewpoint locations were presented and agreed at the meeting.

1.3 Assessment Scope

Technical Scope

1.3.1 This LVIA identifies and assesses the significance of effects that result from the proposed development's impact on both the landscape, as an environmental resource in its own right, and on people's views and visual amenity. The semi-urban nature of the surrounding land requires both landscape and townscape elements to be considered as part of the assessment.

1.3.2 As advised in EPA Guidance¹, the LVIA has been prepared considering relevant local and national guidance, policy and legislation, and the Landscape Institute's 2013 Guidelines for Landscape and Visual Impact Assessment² (GLVIA) that provides the definitions that have been used as described below:

- Landscape is an area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors. Townscape refers to areas where the built environment is dominant. Villages, towns and cities often make important contributions as elements in wider open landscapes, but townscape means the landscape within the built-up area, the character and

composition of the built environment including the buildings, the relationships between them, the different types of urban open spaces, including green spaces, and the relationship between buildings and open spaces³. The way that villages, towns and cities change and develop over time contributes to their current form and character.

- Visual amenity is the overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual backdrop for the enjoyment of activities of the people living, working, recreating, visiting, or travelling through an area.

Spatial Scope

1.3.3 As shown in Figure 1, Appendix 1.1 of this volume, The Landscape study area extends to 1 km surrounding the Site located at located at Irish grid reference O 03911 30784, within Profile Park commercial area.

1.3.4 The Site's immediate boundaries are defined by:

- New Nangor Road (R134) to the north;
- Falcon Avenue, with Equinox land (subject to data centre development, application SD21A/0186 and SD22A/0156) and Grange Castle Golf Club beyond to the east;
- Falcon Avenue to the south; and
- the consented Vantage data centre development DUB-1 (planning reference SD21A/0241) to the west.

1.3.5 The site is an irregular parcel of former agricultural land covering an area of 3.79 ha at an elevation between 74 and 75 m Above Ordnance Datum (m AOD).

Temporal Scope

1.3.6 The assessment considers impacts that would arise during the demolition and construction stage which would be expected to be temporary (<1 year).

1.3.7 Operation impacts are considered at Day 1 and Year 5 and would be expected to be long-term (15-60 years) to Permanent (> 60 years) in nature.

¹ Environmental Protection Agency, 2017, Draft Guidelines on the information to be contained in the Environmental Impact Assessment Reports
² Landscape Institute, 2013, Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Third Edition.

³ Landscape Institute Technical Information Note (TIN) "Townscape Character Assessment" specifically for undertaking a character assessment for "townscape" LI TN 05/2017 [Ref 3.1].

1.4 Baseline Characterisation Method

Desk Study

- 1.4.1 To establish the study area's existing baseline landscape and visual conditions, relevant data was reviewed and assessed. The data sets and associated sources can be summarised as follows:
- Available and relevant landscape character assessments published at the time of the assessment;
 - Online resources including any online records and available designations that include landscape, heritage, natural heritage and environment; and
 - Geographic Information System (GIS) resources and analysis, including calculating a zone of theoretical visibility using a DSM to approximately 1 km from the site boundary to determine landscape and visual receptors within the study area.
- 1.4.2 The baseline would identify landscape and visual receptors and make a judgement on their value and susceptibility to development of the type proposed to determine their sensitivity for the basis of the assessment.
- 1.4.3 The landscape study area extends to 1 km from the site and visual amenity study area extends to approximately 2 km from the site to take account of the Grand Canal designated feature and N7 transport route.

Field Study

- 1.4.4 Photography was undertaken at 11 viewpoint locations identified through desk study and agreed with SDCC at pre-application consultation. Photography was undertaken using a Sony full Frame Sensor camera with 50 mm lens in accordance with the Landscape Institute's Technical Guidance Note 06/19⁴. GPS Coordinates and angle of view were recorded to provide accurate positioning for the development of photomontages. Three site visits were undertaken to secure photography, all during summer months when vegetation foliage is at its maximum.

1.5 Assessment Method

Methodology

- 1.5.1 This LVIA forms part of an Environmental Impact Assessment Report (EiAR) that has been prepared to accompany the planning application for the proposed development by the Applicant. The LVIA is delivered in accordance with the principles outlined within the GLVIA⁵.
- 1.5.2 The GLVIA states the need for an approach that is proportionate to the scale of the project being assessed and the nature of its likely effects. In accordance with the GLVIA and within this LVIA, 'impact' is defined as the action being taken, and the 'effect' is defined as the change resulting from that action. In accordance with the GLVIA guidance, this LVIA specifies the nature of the proposed development, describes the existing landscape and visual amenity in the area that may be affected, predicts the effects, and considers how those effects might be mitigated.
- 1.5.3 This LVIA has been prepared under the supervision of a Chartered Member of the Landscape Institute. In carrying out this LVIA, an independent stance has been taken. As appropriate, the LVIA addresses both the positive and negative impacts of the proposed development in a way that can be relied upon by all parties concerned. All impacts are assumed to be negative unless stated otherwise in the

assessment. The assessment has been informed by a combination of desk-top research, digital analysis and photography.

- 1.5.1 The proposed development would form part of a wider data center campus associated with the July 2022 DUB-1 permitted development. It has been designed within the built and landscape context of the adjacent July 2022 DUB-1 permitted development. The proposed development would be constructed over a similar time period as DUB-1 Phase 2. Consequently, the landscape and visual effects are closely related. Within this context, it has been agreed that effects will be reviewed against a future baseline of the July 2022 DUB-1 permitted development in existence (refer to Chapter 2, Volume 1).

- 1.5.2 To account for the future baseline in this assessment, a two stage approach is taken:
- Establish the existing baseline: the existing baseline conditions are established for the proposed development to ensure a robust and coherent review of the current landscape and visual condition and amenity.
 - Establish a future baseline: the July 2022 DUB-1 permitted development within the context of the existing landscape and visual condition.

1.5.3 Within the operational visual assessment each viewpoint has been assessed at day 1 of operation and year 5 of operation. Photomontages and wireframes are used to determine the landscape and visual impacts at day 1 of operation and at year 5 of operation. The photomontages:

- place 3D georeferenced models into the viewpoint photography provided at Appendix 1.2;
- render the model to give an accurate representation of building facade treatment and landscape planting;
- include the July 2022 DUB-1 permitted development, where the building is screened, a blue line is used to indicate the building location;
- include DUB-13 proposed development, where the building is screened, a red line is used to indicate the building location;
- are provided by the architect and reviewed by the landscape architect responsible for the landscape design and strategy to ensure planting accurately depicts the type and size of planting specified.

1.5.4 Year 5 of operation photomontages have been produced for viewpoints containing the dominant facades along New Nangor Road and Profile Park Roundabout (connected to Falcon Avenue), therefore these photomontages have only been produced for viewpoint 7 and viewpoint 8. Where photomontages for year 5 of operation have not been produced, professional judgement has been adopted for the assessment of effects. Year 5 photomontages will demonstrate the effectiveness of boundary landscape treatments to screen the proposed development as planting takes time to mature and become established. Year 5 photomontages assume 30 cm growth per annum, so an additional 150 cm growth on trees is shown.

1.5.5 A cumulative impact assessment is undertaken to establish the impact of the proposed development when considered in conjunction with similar in-planning, consented and reasonably foreseeable developments within the study area.

1.5.6 The assessment of effects arising from the cumulative developments has been carried out using the same criteria as set out below. The study area used for the proposed development⁶ is used to identify the cumulative projects.

1.6 Assessment Criteria

1.6.1 When assessing landscape and visual amenity receptors the following are determined:

⁴ https://landscapewvstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf (Accessed on 28/9/22)

⁵ Landscape Institute, 2013. Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Third Edition.

⁶ The cumulative study area was decided upon extensive previous experience in respect to similar developments elsewhere, with the majority of cumulative developments experiencing intervisibility with the proposed development contained within.

- Nature of the receptor (sensitivity): The value, importance, and susceptibility of the receptor in relation to proposed development; and
 - Nature of impact (magnitude): The impact on the receptor arising as a result of the proposed development regarding probability, reversibility, spatial extent, and temporal aspects.
- 1.6.2 The criteria used for determining the sensitivity of landscape and visual receptors is described in Table 1-1. The descriptions are not intended to be exhaustive but provide an indication of each level of receptor sensitivity. Professional judgment is applied when determining the appropriate level of sensitivity for each receptor with reasoning provided in the assessment that considers the duration of the effect, the geographical extent of the effect and the surrounding landscape context.

Receptor Sensitivity/Value Criteria

1.6.3 The sensitivity of receptors has been classified as low, medium or high in accordance with the criteria set out in Table 1-1.

Table 1- 1: Receptor Sensitivity Criteria

Sensitivity	Criteria	
	Landscape	Visual
Low	High capacity to accommodate development of the same type, scale and appearance as the Proposed Development. An area of poor quality or condition. Is locally abundant and has few or no distinguishing or designated features.	A view that is characterised by features of the same type, scale and appearance as the proposed development. A view that has little visual amenity or interest, or of a townscape with poor condition. A view that is incidental or experienced at speed.
Medium	Locally valued for its character, features and sense of place. Good to medium quality or condition, potentially including some designated features such as Tree Preservation Orders or Listed Buildings.	A positive view experienced by people during leisure activities such as sports, walking, cycling. A view that has specific local value but is not recognised by designation in local planning or guidance.
High	Value or character is recognised through national or local designation (within, or predominantly within a Conservation Area or Registered Park and Garden, or a high proportion of Listed Buildings, Ancient Woodland). Consistently of high quality and condition, offers strong scenic value. Little capacity to accommodate development of the same type, scale and appearance as the Proposed Development.	A positive view experienced in passing by large numbers of people in passing from transport corridors A view recognised by designation in local planning policy or guidance. A positive/valued view experienced by residents, or large number of visitors/recreational users. Static views towards important local features, landmarks, or buildings. Views that are susceptible to changes of the type, scale and appearance as the proposed development.

Table 1- 1: Receptor Sensitivity Criteria

Sensitivity	Criteria	
	Landscape	Visual
Very High	Landscapes of very high international/national importance and rarity or value with no or very limited ability to accommodate change without substantial loss/gain (e.g. national parks, internationally acclaimed landscapes - UNESCO World Heritage Sites)	A view recognised by designation in national or international policy or guidance. A positive/valued view that is the primary reason for visiting the area by local, national and international users. Views that are very susceptible to changes of the type, scale and appearance as the proposed development.

Impact Magnitude Criteria

1.6.4 The magnitude of impact has been classified as no change/negligible, low, medium, or high, in accordance with the criteria set out in Table 1.2.

Table 1- 2: Impact Magnitude Criteria

Magnitude of Impact	Criteria	
	Landscape	Visual
No Change/Negligible	No perceptible change to the landscape character. A small change resulting from the proposed development that may be incongruous in itself, whilst retaining the overall character and quality of the wider townscape area.	No perceptible change to the overall view. A change that is visible but would not be immediately apparent to the visual receptor or in key views. A change that is visible but is consistent with the nature and amenity of the existing view.
Low	A notable change to the landscape area resulting from the proposed development that is in-keeping with the surrounding character.	A notable change within a small proportion of overall view, or for limited durations.
Medium	A notable change resulting from the proposed development that is incongruous with the surrounding character. The proposed development would result in the loss/addition of a valuable component of the landscape.	A notable change within a view. The addition or removal of a key component of the view.
High	The proposed development would result in a large-scale change to the character of the area. The proposed development would conflict with the character of the wider area and exert a large influence upon it.	A complete change to the nature of the view. Addition of a feature within part of the view that influences the perception and amenity of the wider view.

Scale of Effect Criteria

- 1.6.5 Impacts have been assessed on the basis of the value/sensitivity of receptors against the magnitude of impact to determine the scale of effect as presented in Table 1.3.

Magnitude	Sensitivity of Receptors			
	Low	Medium	High	Very High
No change/ Negligible	Imperceptible	Imperceptible	Not significant/ Slight	Moderate
Low	Imperceptible	Not significant/ Slight	Moderate	Significant
Medium	Not significant/ Slight	Moderate	Significant	Very Significant
High	Moderate	Significant	Very Significant	Profound

- 1.6.6 Based on Environmental Protection Agency's (EPA) Guidelines on the information to be contained in Environment Impact Assessment Reports⁷ (2022), as described in Chapter 2: EIA Process and Methodology, effects ranging from 'moderate' to 'profound' are considered 'significant' in terms of EIA.

Nature of Effect Criteria

- 1.6.7 The nature of the effect can be described as either negative, neutral, or positive as outlined in Chapter 2: EIA Process and Methodology. In this assessment, all effects are assumed to be negative unless stated otherwise in the assessment.

1.7 Assumptions and Limitations

- 1.7.1 Photographs were taken in June and August 2021 and August 2022 when trees were in leaf. The worst-case scenario for visual impacts is during the winter months, when the absence of leaves on the trees can open up more distant views. The LVIA has taken this into account using professional judgement and experience from other projects to determine the extent of visibility and the impact on views during winter months.
- 1.7.2 The Zone of Theoretical Visibility Analysis is determined using a Digital Surface Model that has an accuracy of +/- 1.5m accuracy and therefore positions could be inaccurate by up to 3 m. The model takes heights from the surface and does not consider screening by vegetation and buildings. Consequently, the ZTV presents a worse-case scenario and visibility of the Proposed Development on the ground would be less due to screening.

1.8 Baseline Conditions

Existing Landscape Baseline

- 1.8.1 The existing baseline represents the current conditions of the site and surrounding area as of Summer 2022, as described in Chapter 1 and 2, Volume 1 of this report. In addition, this assessment also establishes a future baseline, to account for the July 2022 DUB-1 permitted development (see section 1.8.23 below).

⁷ Environmental Protection Agency, 2022. Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)

- 1.8.2 The baseline considers landscape Features and elements of the site and surrounds and how combined they contribute to the wider context of the landscape character as an inherent resource and as it is perceived by people. Elements include:

- Topography;
- Hydrological Features;
- Landcover;
- Land use;
- Landscape types that are described by characteristics that can occur within different locations and character areas;
- Landscape Character Areas at the appropriate scale; and
- Designations that recognise landscape and/or landscape features.

- 1.8.3 A site plan is provided as Figure 1.2, Appendix 1 (Volume 2).

Topography

- 1.8.4 The site is a triangular parcel of agricultural land, with a residential dwelling located in the north-west corner of the site, and an area of hardstanding within the south-west of the site. The site covers a total area of 3.31 ha and lies at an elevation between approximately 74 and 75 m Above Ordnance Datum (m AOD).

- 1.8.5 Within the study area, the site is positioned within a lowland area that is gently sloping upwards from north (at c. 66 m AOD) to south (c 90 m AOD) as the land gently rises before transitioning to the slopes of the Dublin foothills at approximate 4.5 km from the site. Mount Seskin rises up to 271 m AOD to the south-east of the site. In contrast, the topography in an east west direction gently undulates transitioning between lows of 71 m AOD and highs of 77 m AOD across the study area.

Hydrological Features

- 1.8.6 As described in Chapter 10, Volume 1, the Baldonnel Stream crosses under Falcon Avenue and flows through the south of the site; entering at the south-east before meandering north-west and leaving the site. Within the site, the stream runs in a small channel with an unmanaged hedgerow on its northern bank and grassland along its southern bank. The stream is a tributary of the River Griffeen that travels north through the Grange Castle Business Park.

Land cover

- 1.8.7 The majority of the site is covered with improved grassland with scraggy hedgerows with some emerging trees following the path of the river across the south of the Site and form its southwest boundary.
- 1.8.8 A single residential dwelling and associated outbuilding occupy the north-west area of the site. The dwelling faces onto Nangor Road and is set back behind a small boundary wall to the rear of the grassed verge. A row of mature trees creates a visual and physical boundary between the dwelling and the eastern part of the site and an overgrown hedgerow provides a physical boundary to the west of the dwelling. An area of hard standing is located in the south-west of the site with two small outbuildings in a degraded condition. The Athgoe and Saggart Hills provide a backdrop to the site in the far distance.
- 1.8.9 As set out in the arboricultural report, there are 130 trees on the site and approximately 285 linear metres of hedgerow within the site.
- 1.8.10 Surrounding the site, the landcover is a mix of peri-urban development and agricultural fields with a network of hedgerows, shelter belts and road infrastructure crossing the area.

- 1.8.11 To the north, land cover is predominantly urbanised before development becomes more dispersed with an increase in grassland and hedgerows around Grange Castle. Beyond, at approximately 1.9 km, the proposed Natural Heritage Area (pNHA), the Grand Canal, crosses the landscape with Griffen Valley and a mix of urban cover including parkland beyond.
- 1.8.12 East of the site is the Equinox development site, prepared for development as an area of flat, hardstanding. Beyond is the Grange Castle Golf club with a mix of maintained grassland, ponds and small areas of trees that encompasses the south east of the study area.
- 1.8.13 From south to west, the area is less developed than the north with a patchwork of developed areas that are composed of large commercial buildings, typical of data centers, and improved grassland fields with boundary hedgerows and emerging trees.

Land use

- 1.8.14 Surrounding land use is varied within this transitional, peri-urban landscape. To the north, commercial buildings are dominant with large warehouses and technology industry buildings, including a substation, located in the Grange Castle Business Park and Kilcarbery Park.
- 1.8.15 To the east the land is less intensely developed with open areas between the business parks and the R136. Beyond the R136 land use becomes residential with a suburb of Oldcastle Park.
- 1.8.16 To the south east, land use is predominantly recreational with the Grange Castle Golf Club. Beyond the R136, recreational uses continue with bike tracks and baseball facilities.
- 1.8.17 To the south, there is a mixture of uses include the Digital Realty Profile Park with data centres and substations interspersed with undeveloped former agricultural fields. Further south, a waste water treatment plant is located near cultural elements including Killbride Cemetery and Baldonnel House and Orchard, before giving way to the large area associated with the Casement Aerodrome and its associated buildings.
- 1.8.18 South west of the site there is a mix of data centre development associated with the Grange Castle Business Park South and some intervening agricultural fields. Baldonnel Road curves round from the R134 south then south east, forming a boundary to the business park development. Scattered residences are located south of the road with Kilmactalway cemetery beyond. The small settlement of Castlebaggot is located approximately 1.5 km south west of the site with a mix of commercial uses including car repair, plant hire, and care sales
- 1.8.19 The road corridors form linear features across the study area, providing a link between townscape and landscape, traversing the transition between South Dublin urban area. The road corridors also provide boundaries between different land use areas for example, the R136 provides a dividing area to residential areas to the east and commercial development to the west and the Baldonnel Road contains Profile Park and the Grange Castle Business Park to the south.

Regional Character Assessment

- 1.8.20 A national Landscape Character Assessment is under development in Ireland, and until available Counties are responsible for identifying character types and areas within their administrative boundaries as set out in the Draft Guidelines for Planning Authorities⁸.
- 1.8.21 A Landscape Character Assessment was carried out on behalf of South Dublin County Council by Minoque and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd in February 2015, a review of the assessment was carried out in May 2021 with the Draft Report⁹ appended to the SDCC Development Plan 2022-2028. The report emphasises that:

- South Dublin County provides the landscape setting from the west and south of Dublin City and that maintaining this character and quality is of significance for the greater Dublin area and that it is arguably of national significance.
 - existing and new business and retail parks should provide for greater landscaping treatment that is more sympathetic to the landscape and less visually intrusive; considerable opportunities exist to use various green design options as well as planting schemes.
- 1.8.22 There are no protected views or prospects within the landscape or visual study area.

South Dublin Landscape Character Types

- 1.8.23 Within the SDCC character assessment, Landscape Character Types (LCTs) are identified. The site is located within an area typical of the urban fringe as described below:
- **Urban fringe:** Transitional lands that were largely rural, transforming into suburban or urban derived land use. Land use comprises transport, retail/business parks, quarries and urban derived housing. Priority is to screen through appropriate native broadleaf planting to provide stronger visual boundary and definition as well as enhancing ecological connectivity. Integrate transitional lands into landscape through appropriate planting and boundary treatments.
- 1.8.24 The site is in close proximity to areas identified as Limestone farmland LCT:
- **Limestone farmland:** Gently undulating low-lying (generally below 100 m) with limestone bedrock. Land use includes tillage and pasture. Generally dispersed settlement pattern. Principles for development include controls on urban expansion, ribbon development and other types of erosion and fragmentation of landscape character. Its character as a rural landscape provides a distinct and important identity to this area and requires site planning guidance on the use of appropriate vernacular styles and treatments in new developments. Assessed as low to medium sensitivity type.
- 1.8.25 Connected to the site by the Baldonnel stream, although outside of the landscape study area, includes the Grand Canal (pNHA) classified as the Canal LCT:
- **Canals:** man-made watercourses of historic importance. Embankments are a feature and frequently alignment is closely associated with the railway lines. Woodland and habitats associated with the canal are important ecological features. Offers accessible recreational area for urban dwellers. Principles for development include enhancing ecological connectivity. Assessed as low to medium sensitivity type.
- 1.8.26 Ensuring visual screening and high-quality boundary treatments that provide ecological connectivity area important considerations within the LCTs associated with the site.
- ### South Dublin Landscape Character Areas
- 1.8.27 Excluding the urban area of South Dublin, four LCAs are identified through the SDCC Landscape Character Assessment. The site is located within LCA 2: Newcastle Lowlands, close to the urban area boundary (see **Figure 1, Appendix 1.1**). The Dublin foothills form a backdrop to the site and are located within the Athgoe and Saggard Hills LCA and the Dodder and Glenasmole LCA. Due to the distance from the site and the proposed development's similarity in scale and form to surrounding structures in the immediate vicinity, it is judged that the Athgoe and Saggard Hills LCA and the Dodder and Glenasmole LCA would experience Negligible/No change magnitude of impact and are therefore judged to not be appropriate for inclusion in the baselines and assessment of this LVIA.
- 1.8.28 In general, the SDCC landscape assessment identified the following key characteristics for the Newcastle Lowlands LCA:
- Low-lying and gently undulating agricultural lands over limestone.

⁸ <https://www.gov.ie/en/publication/71181-landscape-and-landscape-assessment/> Accessed 23 September 2022.

⁹ <https://www.sdcc.ie/en/devplan2022/stage-2-draft-plan/appendices/appendix-9-draft-landscape-character-assessment.pdf> Accessed 23 September 2022

- Established communication corridors that include the Grand Canal, railway corridor and two aerodromes at Weston and Baldonnel.
 - Agricultural land use primarily pasture and tillage.
 - Increasing influence of urban activities closer to the motorways, national roads and regional roads.
 - Long history of historic settlement and human activity with medieval landscape complex associated with Newcastle village and surrounds.
 - Number of demesnes associated with former country houses and institutions including reuse of older country houses at sites such as Peamount and Baldonnel.
- 1.8.29 The assessment identifies the following potential Landscape and Visual sensitivities relevant to the site's context:
- Hard engineering and new infrastructure have not benefited from planting schemes that would assimilate them more sympathetically into the surrounding landscape.
 - Within the generally flat landscape, vertical structures such as existing pylons can be seen across quite long distances.
 - The remaining rural character of Newcastle Lowlands LCA fulfils landscape, ecological and economic functions and merits a considered approach.
- 1.8.30 The SDCC assessment reviewed Newlands Lowlands LCA sensitivity to change (Visual and Character), its value (in terms of experiential qualities) and its capacity to accommodate development as extracted below:
- Landscape value: **Medium to High**
 - Landscape capacity: **Low**: Key characteristics of the landscape are vulnerable to change. There may be limited opportunity to accommodate development without changing landscape character. Great care would be needed in locating development.
 - Overall landscape sensitivity: **Medium**
- 1.8.31 The SDCC assessment identifies mitigation measures for development in the area summarised below:
- Guidelines including those contained in the Urban Design Manual, Local Area Plan and, the County Development Plan provide relevant site planning advice and should be compiled with for new development and enhancing existing development where possible. Boundary treatments including screening through appropriate tree planting (of native provenance) would sympathetically absorb development into the ambient landscape.
 - Explore the potential to establish a linear park to enhance green infrastructure and appropriate recreational space from the Grand Canal to the foothills and uplands
 - When the opportunity arises, planting and other landscape design measures, including planting with native hedgerows, and/or installing limestone walls, should be used in laybys, and at new developments.
 - This LCA functions as the rural landscape that frames western Dublin and retaining both separate distances and its agricultural character is very important.
- 1.8.32 The landscape condition is described as variable across the LCA with the landscape closer to the urban fringe and major transport corridors tending to be more fragmented in character.
- 1.8.33 Profile Park sits within an area of the Newcastle Lowlands that is typical of the urban fringe character type, that is rapidly transitioning to an industrial and commercially focused area. The SDCC Development Plan 2022-2028¹⁰ designates the Profile Park area, and the Grange Business Park to the north and south, as land for enterprise and employment.

1.8.34

The plan allocation has led to an increasing commercial character with a focus of technology-led industrial development that consists of large, often clad buildings that create a scale of development that can be prominent in this relatively flat landscape. Developments surrounding the site have a mix of boundary types of varying quality that do not consistently contribute to a coherent landscape character within the commercial area.

1.8.35

Several locations within the landscape study area are under development with hoarding and building plant visible. The landscape character of the area immediately surrounding the site is that of a former agricultural landscape undergoing rapid change to a commercial and industrial landscape. The high quality, formal planting associated with Profile Park and Grange Castle Business Park entrances does not extend across the whole study area, much of which is of indifferent landscape quality.

1.8.36

Where boundary landscape planting is used effectively, such as at the Grange Castle Golf Course, the fragmentary nature of the area's landscape character is partially resolved and assimilated more effectively into the broader Lowland Character context.

1.8.37

Road corridors form a key townscape element within the study area landscape:

- The R134 crosses the study area from east to west, dividing the Grange Castle Business Park into North and South areas. The road transitions from a relatively constrained peri-urban environment to more open vistas as it extends into the Newcastle Lowlands.
- The R135 runs north to south providing a boundary between commercial and residential areas. The smaller Baldonnel Road provides a southern boundary to Profile Park and the Grange Castle Park South.

Architectural

1.8.38

There are no built heritage assets in the site, or in the immediate vicinity. An assessment of the impact of the Proposed Development on the heritage assets is undertaken in Volume 2, Chapter 2, Cultural Heritage. The listed buildings are assessed as landscape and townscape receptors that contribute to the character of the area.

1.8.39

Due to the high number of built heritage assets within the study area, they are collectively judged as having a high value. Overall, the buildings are assessed High sensitivity receptors due to their designation. Their distribution can be seen in **Figure 1, Appendix 1.1**. The buildings are grouped based on their orientation around the site. These groups are described below:

- To the north are a cluster of buildings associated with the Grand Canal including the 12th Lock Bridge and Mill Buildings. Listed sites include (1120454; 11204053; 1120458; 11204055; 1120453; 11204057). In closer proximity to the site is the ruins of the Grange Castle (11208012) that is a prominent landmark in the area.
- To the east are a cluster of buildings associated with the Nangor Road, including the group of four early-twentieth century semi-detached houses (11209004; 11209005; 11209002; 11209003) and Kilcarrberry House (11209001), a Georgian house, described in the listing as 'set in the rural' setting.
- To the south are a cluster of buildings associated with the Baldonnel Aerodrome (11208028; 11208025; 11208024; 11208027; 11208026; 11209093; 11209094) and Baldonnel House, a Victorian country house that is a demesne characteristic of the LCA. To the south-west, is Castle Bagot House (11208010) that is described as 'dominating the low-lying agricultural land'¹¹.
- To the west of the site are a cluster of four listed sites that include rural buildings and features. The area is a mix of rural and commercial in character with car yards and gym in the vicinity. From the road adjacent to the sites, the commercial buildings surrounding the site are visible. Listed features include: 1120815 (Miltown); 11208016 (Polly Hops), 11208006 (Miltown); 11208005 (Miltown gateway).

¹⁰ <https://www.sdcc.ie/en/services/planning/development-plan/>. Accessed 23 September 2022

¹¹ National Inventory of Architectural Heritage (2021) Website Available at: <https://www.buildingsofireland.ie/>. Accessed 22 July 2021

- **Employment receptors** including the commercial premises on the R134 adjacent Bolands Garage, Digital Realty Profile Park, Google PPL Data Center Campus, and businesses within the Grange Castle Business Park (North and South) and Kildarby Park.
- **Travel receptors** associated with all the existing roads including the New Nangor Road R134, Baldonnel Road, Falcon Avenue and potentially views from the N7 Naas Road.

Table 1.5 Landscape Receptor Sensitivity

Receptor	Description	Sensitivity
The Site	A small irregular shaped parcel of former agricultural land with residential dwelling and associated building within an allocated development area. Features include Baldonnel stream and vegetation cover that includes hedgerows established trees, shrubs, ground cover and areas of hard standing.	Low
Newcastle Lowlands Character	Low-lying and gently undulating agricultural lands over limestone. Key characteristics of the landscape are vulnerable to change. Limited opportunity to accommodate development without changing landscape character. Great care needed in locating development.	Medium
The Grand Canal	A pNHA providing important biodiversity, green infrastructure and recreational functions within the landscape. Although outside the landscape study area, the canal is linked via Baldonnel stream to the site.	High
NIAH Listed buildings	27 listed buildings are located within 1.5km of the site including a range of type and condition. Collectively the buildings' sensitivity has been determined by their listed status within the landscape and the susceptibility to change.	High
Baldonnel Stream	Watercourse connected to a pNHA area (the Grand Canal) with its surrounding riparian vegetation providing refuge for flora and fauna from surrounding agricultural, commercial and urban land uses. The river has been impacted by a long history of human activity within the area.	Medium
Road corridors	Road corridors form distinct features across this landscape including the R134, R136, Baldonnel Road and Falcon Avenue and provide a link between townscape and landscape, traversing the transition between South Dublin urban area	Low

Visual Amenity

- 1.8.40 The extent of the Proposed Schemes visibility was determined using a Zone of Theoretical Visibility (ZTV), as described in the Methodology.
- 1.8.41 Due to the range of surrounding land uses, the study area contains four main types of receptors as set out below:
- **Residential receptors** located in the surrounding settlements of Oldcastle Park and the scattered dwellings along Baldonnel Road. The ZTV shows limited visibility from Oldcastle Park due to intervening buildings and screening vegetation and therefore this area is scoped out of the assessment. Scattered dwellings along Baldonnel Road and at Casement Aerodrome are judged to have medium sensitivity due to the presence of existing buildings of similar scale and form within the views and surrounding commercial activities already within their vicinity, including the aerodrome.
 - **Recreational receptors** using the Grand Canal and adjacent Grange Castle Golf Club.

Representative Viewpoints

- 1.8.42 To assess the potential effect of the proposed development on landscape and visual amenity generally, a series of representative viewpoints have been selected. The effects on specific landscape and visual receptors and these locations are assessed. Baseline conditions at these locations are described in Table 1.6 below and the location of the viewpoints are shown in **Figure 3, Appendix 1.1.**

Table 1.6 Representative Viewpoint Baseline View

Viewpoint	Description	Receptor Type and Sensitivity
1: The Grand Canal looking south east	<p>The view extends from the Grand Canal, a pNHA, 2.6km north west of the Site. Currently the site is not visible from this location</p> <p>The view is generally open with long-distance views to the undulating Dublin foothills. A prominent urban element, composed of commercial buildings, forms the mid-ground of the view.</p> <p>The foreground is composed mixed predominantly native vegetation, including grasses, hedgerows with some small deciduous trees. Agricultural fields separate the fore and mid ground view.</p> <p>Despite the presence of the commercial buildings in the midground, the view retains relatively strong rural character typical of Newcastle Lowlands due to the open fields in the foreground and backdrop of the Dublin foothills.</p>	Recreational: Medium
2: New Nangor Road	<p>The view is from the roundabout junction at the R134, New Nangor Road, with Baldonnel Road looking south east 1km from the Site. Currently the site is not visible from this location.</p> <p>The view is generally open, with low-lying land that hosts a mix of elements including transport infrastructure, commercial buildings and open fields. The foreground contains footpaths, walls, a watercourse emerging from a culvert and public bench.</p> <p>The midground is formed by a field with long grass, scattered trees and mounds of earth potentially associated with construction.</p> <p>Glimpses of the Dublin foothills can be seen through gaps between trees.</p> <p>The view has a weak character due to the mix of elements that do not blend coherently within the view.</p>	Transport and Employment: Low

Table 1.6 Representative Viewpoint Baseline View

3: Baldonnell Road	The view extends east from Baldonnell Road at the junction with Falcon Avenue approximately 1km from the Site. Currently the site is not visible from this location The view is enclosed with raised land and buildings following Falcon Avenue as it disappears to the right behind raised land. The view has a strong commercial, built-up character with the security fencing prominent and limited boundary vegetation to soften the impact of the commercial buildings at street level. A large white-clad commercial building dominates the view in the foreground. In the mid ground is a grey industrial building with no visible windows or features. No long distance views are visible from this location.	Transport and Employment: Low
4: Casement Aerodrome entrance	The view extends north from a Baldonnell Road layby near the entrance of the Casement Aerodrome approximately 715m from the Site. Currently the site not directly visible from this location although the top of a row of trees that cross the site can be seen. Views are relatively open although constrained to the mid-ground by commercial buildings and trees. Some vertical grey structures punctuate the skyline in the far distance. A mix of agricultural and commercial elements give this view an indistinct character.	Residents: Medium Transport and Employment: Low
5: Bolands Garage	The view extends east from Bolands Garage located on the R134, New Nangor Road approximately 300m west of the Site. Currently the site is not visible from this location. The view has a commercial and road-side character with road infrastructure features and commercial buildings prominent in the view. Established vegetation, trees and overgrown hedgerow, help soften the impact of the hardscape and provides some visual amenity and screening. Views are constrained at this location, channelled along the road corridor with no distance elements.	Transport and Employment: Low
6 North West Corner of the Site	The view extends south east from New Nangor Road approximately 100m from the north west corner of the Site with much of the site visible from this location The view has an indistinct roadside character with infrastructure, boundary planting and a residential dwelling forming the view. The foreground is dominated by the road, a pedestrian crossing and some signage.	Transport and Employment: Low

Table 1.6 Representative Viewpoint Baseline View

7 Entrance to Profile Park	In the mid-ground, telegraph poles and wires cross the view with shrub type vegetation screening the majority of the residential dwelling in the Site. A row of large established trees screen further views. No long distance views are visible from this location.	Transport and Employment: Low
8 Profile Park Access Road	The view extends north west from an access road located south of Falcon Avenue, approximately 160m south of the Site. The Site is visible from this location. The foreground is made up of road infrastructure including adjacent footpath and lighting columns. The midground transitions to scrub vegetation and long grasses with large established trees. Tree planting is a mix of formal row of trees along Falcon Avenue, accompanied by lower maintained hedgerow planting, and more naturalistic planting away from Falcon Avenue. Established trees on the Proposed Development site are visible. In the far distance, part of a large commercial building is visible through gaps in the trees	Transport and Employment: Low
9 Falcon Avenue	The view extends north east from Falcon Avenue approximately 355m south west of the Site, and the site is clearly visible from this location. The view is composed of a tarmac road, running from the fore to the mid ground view, and adjacent grass fields with scattered established trees. In the distance, a continuous line of trees interspersed with lamp posts runs along the horizon, interrupts the sightline.	Transport and Employment: Low
10 N7 Junction with R136	The view extends north west from the elevated junction of the N7 and R136 approximately 2.2km south east of the Site. The Site is not visible from this location.	Transport and Employment: Low

Table 1.6 Representative Viewpoint Baseline View

	The view is dominated by a dual carriageway bridge structure. In the midground, road signage for a roundabout can be seen with traffic lights. A tree line runs across the far-ground view with a mix of trees varying in height and distance.	
11 Grange Castle Golf Course Entrance	The view extends west from the footway north of the entrance to the Golf Course approximate 455m from the Site. The Site is not visible from this location The foreground view is dominated by the road and adjacent footpath. Lighting columns extend to the skyline across the view. A roundabout and the entrance to the Golf Course form the mid-ground view, with the blue security fencing prominent against a background of trees that prevent long distance views.	Recreational: Medium Transport and Employment: Low

Future Baseline

- 1.8.43 The future baseline for the Landscape and Visual assessment comprises the area to the west of the proposed development site, which would be occupied by the July 2022 DUB-1 permitted development.
- 1.8.44 During the demolition and construction stage of the proposed development, the July 2022 DUB-1 permitted development Phase 1 would be complete and the Phase 2 construction activities would be underway, located in the southern area of the site. The construction activities would be similar in nature to that of the proposed development due to the similar form and dimension of the developments, consented and proposed.
- 1.8.45 On Day 1 of operation of the proposed development the July 2022 DUB-1 permitted development would be operational. The developments would be set within a consistent landscape scheme that would have had a minimum period of six month establishment period. The enhanced Baldonnel stream and associated wetland planting and SuDs attenuation features would be completed with some period of establishment.
- 1.8.46 The development would occupy the north west area of Profile Park, forming the area to the west of the main New Nangor entrance. The extensive planting and berm treatments will form a new continuous and naturalistic planting boundary along the R134.
- 1.8.47 Experienced from the New Nangor Road, the landscape strategy, if implemented effectively and maintained, will provide a high quality boundary treatment that extends the boundary experienced travelling along the R134 from the Grange Castle Golf Club and Grange Castle Business Park boundaries further east. The landscaping features to be implemented as part of the July 2022 DUB-1 permitted development would provide screening and mitigate the visual impacts of that development as well as providing biodiversity and green infrastructure benefits.
- 1.8.48 The July 2022 DUB-1 permitted development boundary treatments contribute to an overall positive effect on the hedgerows and trees that are an important landscape feature within the Newcastle Lowlands LCA. In addition, the boundary treatments would have contributed to local amenity value, biodiversity and green infrastructure while supporting the creation of a high quality business park environment.

Sensitive Receptors

- 1.8.49 The receptors identified as sensitive to the proposed development, and which have been 'scoped-in' to the assessment are summarised in Table 1-7.

Table 1-7: Summary of Sensitive Receptors

Receptor	Sensitivity
Landscape	
The Site; surrounding road corridors	Low
Road Corridors	Low
Landscape Character (Newcastle Lowlands); Baldonnel Stream	Medium
Designations: The Grand Canal; NIAH Buildings	High
Visual	
Recreational and residential	Medium
Travel and Employment	Low

- 1.8.50 Based on the baseline characterisation, the following receptors have been scoped out of the subsequent assessment:
- Residents in Old Castle Park are scoped out of the LVIA due to limited visibility shown on ZTV and photography showing the development site would be screened from this location; and
 - The Athgoe and Saggard Hills LCA and the Dodder and Glenasmole LCA, would experience Negligible/No change magnitude of impact due to the distance from the site and the proposed development's similarity in scale and form to surrounding structures in the immediate vicinity and are therefore judged to not be appropriate for inclusion in the baselines and assessment of this LVIA.

1.9 Assessment of Effects

- 1.9.1 As set out in detail in Chapter 4, Volume 1, and summarised below, the proposed development occurs within the red line boundary (shown in **Figure 1.1, Chapter 1, Volume 1**) and covers an area of 3.79 ha, would comprise of the following elements:
- Demolition of existing double-storey dwelling and three outbuildings/sheds.
 - Removal of 160 linear metres existing hedgerow and 72 trees from the site.
 - One, two-story data centre that includes;
 - a building footprint of c. 12,893sqm;
 - offices on the first floor;
 - 13 standby emergency generators with associated flues each 22.3m in height on the west of the building;
 - Parapet height with roof structures including Genset flues;
 - Access via Falcon Avenue with a new vehicular access point;
 - 60 car parking spaces;
 - Exterior cladding in white, light and dark grey, consistent with associated DUB-1 permitted development and other data centres within the context of the Proposed Development; and
 - Green walls on the East elevation where the building would be visible from the R134 New Nangor Road.