

Intended for  
**Vantage Data Centers DUB11 Limited**

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**1620012232**

# **VANTAGE DUBLIN DATA CENTER**

## **VOLUME 2: LANDSCAPE, VISUAL AND HERITAGE IMPACT ASSESSMENT**

# 1 LANDSCAPE AND VISUAL

## Introduction

- 1.1 This chapter of the EIA reports on the likely significant Landscape and Visual effects to arise from the demolition and construction stage and the operation stage of the proposed development.
- 1.2 The chapter describes the Landscape policy context; the methods used to assess the potential impacts and likely effects; the baseline conditions at and surrounding the site; the likely landscape and visual effects taking into consideration embedded mitigation; the need for additional mitigation and enhancement; the significance of residual effects; and inter-project cumulative effects.
- 1.3 The chapter is supported by the following technical appendices in EIA Volume 2:
  - Appendix 1.1: Figures;
  - Appendix 1.2: Viewpoint Photographs;
  - Appendix 1.3: Viewpoint Photomontage; and
  - Appendix 1.4: Wireframe.

## Methodology

### Approach

- 1.4 This LVIA forms part of an Environmental Impact Assessment Report (EIA) 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 GLVIA<sup>1</sup>.
- 1.5 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 for non-EIA projects, 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.
- 1.6 This LVIA has been prepared by 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. The assessment has been informed by a combination of desk-top research, digital analysis and photography.

## Viewpoints and Photography

- 1.7 Representative viewpoint locations have been determined through desktop research and calculation of a Zone of Theoretical Visibility for the area surrounding the Site of up to 1.5km using a Digital Terrain Model of up to 1.5m accuracy (see Figure 1, Appendix 1.1). The analysis determined 10 representative Viewpoint locations for agreement by the Planning Authority. On consideration, the

Planning Authority requested an additional viewpoint from the N7 on approach to Dublin. Agreed Viewpoints 01 to 11 are shown in Figure 2, Appendix 1.1).

- 1.8 Photography for all viewpoints was taken using a Full Frame Sensor camera with 50mm Fixed Focal Length Lens, to provide consistency between all viewpoints. An image captured in this way is representative to that seen by the human eye when viewed at a width of 39cm from a distance of 55 cm. Single frame photographs were taken with the levelled camera on a fixed from each viewpoint (see Appendix 1.2). The tripod height above ground, angle and coordinates were recorded for each image.
- 1.9 For all sites where Proposed Development is visible, a photomontage is produced using 3DS Max modelling software and placing the building accurately using the coordinates of the camera location (Appendix 1.3). The 3D building model is geo-located within the viewpoint image using digital terrain models with an elevation accuracy of within 1.5 m. Wireframe images are provided in Appendix 1.4 to demonstrate how the building was aligned within the viewpoint photographs.

## Assessment criteria

- 1.10 For each landscape character area (LCA) identified and representative viewpoint, the following has been determined:
  - 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.
- 1.11 The criteria used for determining the sensitivity of landscape and visual receptors is described in Table 1.1.1. The descriptions are not intended to be exhaustive but provide a definition of the nature of the receptor for each level of sensitivity. Professional judgment is applied when determining the appropriate level of sensitivity for each receptor.

<sup>1</sup> Landscape Institute, 2013. Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Third Edition.

Table 1-3: Scale of Effect

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

1.14 Effects that are imperceptible to not significant/slight in scale are considered 'not significant'. Effects that are moderate and above are judged to be 'significant'.

## Assumptions and limitations

1.15 Photographs were undertaken in June 2021 with the majority of deciduous vegetation in leaf. The worst-case scenario for visual impacts is during the winter months, when the absence of leaves can open 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.

## Assessment Scope

1.16 This LVIA is intended to identify and assess the significance of effects for the impacts resulting from the Proposed Development 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 included in the assessment.

1.17 As advised in EPA guidance<sup>2</sup>, the LVIA has been prepared taking into account relevant local and national guidance, policy and legislation, and the Landscape Institute's 2013 Guidelines for Landscape and Visual Impact Assessment<sup>3</sup> (GLVIA) that provides the definitions that have been used as described below.

1.18 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 spaces<sup>4</sup>. The way that villages, towns and cities change and develop over time contributes to their current form and character.

1.19 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.

<sup>2</sup> Environmental Protection Agency, 2017, Draft Guidelines on the information to be contained in the Environmental Impact Assessment Reports  
<sup>3</sup> Landscape Institute, 2013, Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Third Edition.  
<sup>4</sup> Landscape Institute Technical Information Note (TIN) "Townscape Character Assessment" specifically for undertaking a character assessment for "townscape" LI TIN 05/2017 [Ref 3.1].

## Spatial Scope

- 1.20 The Site is an irregular parcel of land located within Profile Park, a 40.5ha, private business park referred to as on their website as 'rapidly becoming Ireland's Data Center Cluster'<sup>5</sup>. A derelict single-story residential dwelling and an associated building surrounded by established coniferous trees currently occupies the Site.
- 1.21 The Site's immediate boundaries are defined by:
- 1.22 The New Nangor Road (R134) that runs along the northern perimeter with some fractured hedge planting running parallel to the road. An industrial park is beyond;
- 1.23 A residential dwelling with agricultural fields is to the east, with established hedging and deciduous trees along the border. Beyond is Profile Park Road and Grange Castle Golf Club;
- 1.24 Profile Park Road borders the Site to the south and provides the main access road via a roundabout junction, beyond is green fields, a data center development and the Casement Aerodrome; and
- 1.25 Bolands Commercial Garage is to the west with established hedging and deciduous trees running along the boundary, a data center is currently under development on green fields beyond.
- 1.26 The Baldonnal stream runs through the Site in a southeast to northwest direction, flowing toward the northwest. The stream is culverted as it enters the Site under Profile Park Road and as it exits the beneath Bolands Garage.
- 1.27 The wider context of the Site is characterised by its location on the urban fringe with a mix of industrial, commercial, residential and agricultural building and an associated fragmented mixture of uses.
- 1.28 Informed by baseline analysis and the nature of the Proposed Development and landscape context, the study area for this LVIA extended approximately 1.5 km from the Site to take account of the relatively flat topography of the surrounding area that creates an open landscape. Where appropriate, the site area has been extended to incorporate designated areas that have been identified in the Landscape Character Assessment as features of national importance. Descriptions of the landscape and visual baseline within the study area are provided below.

## Temporal Scope

- 1.29 The assessment has considered impacts arising during the demolition and construction stage which would be of expected to be temporary and short to medium-term (5-7 years) in nature and from the operation stage, which would be expected to be permanent and long-term in nature (i.e. more than 15 years).

## Landscape

- 1.30 A description of the relevant landscape character areas and features of the Site are summarised below. Where the Proposed Development may be visible within specific views from the identified landscape character area, the visual baseline and description of visual impact is provided in the visual section of this LVIA.
- 1.31 An existing landscape character assessment carried out by South Dublin County Council is in place for the study area<sup>6</sup>. The Site is within identified LCA2: Newcastle Lowlands. The study forms the basis of the landscape baseline and has been supplemented by desktop research to understand the features related to the site.

<sup>5</sup>The Park (2021) About us [www.profilepark.com/index.php/the-park/2doing\\_wp\\_cron=1626954910.5751659870147705078125](http://www.profilepark.com/index.php/the-park/2doing_wp_cron=1626954910.5751659870147705078125) (Accessed 22 July 2021)  
<sup>6</sup>Minogue and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd (2015) Landscape Character Assessment of South Dublin County. Available at: [Landscape CHARACTER ASSESSMENT of South Dublin County \(southdublincounty.ie\)](https://www.southdublincounty.ie/landscape-character-assessment/). Accessed 22 July 2021.

- This LCA functions as the rural landscape that frames western Dublin and retaining both separate distances and its agricultural character is very important.
- 1.43 The landscape condition is described as variable across the LCA with landscape closer to the urban fringe and major transport corridors tending to be more fragmented in character.
- 1.44 The Dublin foothills and mountains form a backdrop to the Site and are located within the Athgoe and Saggard Hills and the Dodder and Glensmole Character Areas<sup>8</sup>. Due to the distance from the Site and the Proposed Development similarity in scale and form to surrounding structures in the immediate vicinity, it was judged that these character areas would experience Negligible/No change magnitude of impact and are therefore judged to not be appropriate for inclusion in this LVIA.

## Relevance to Site Context

- 1.45 The Site is located within the Newcastle Lowlands LCA, close to the Urban LCA boundary. The Proposed Development is located in an area of fragmented in character due to its proximity to urban areas and major transport corridors.
- 1.46 The Site is generally flat in accordance with Limestone Farmland landscape character type and its surrounding environs. A topographical survey of the Site and local surrounds was carried out on 3 June 2021 and shows that elevation varies between 75mOD and 65mOD with a general rise in elevation southwards.
- 1.47 The Site has the character of a traditional field with remnants of hedgerow boundary typology. The surrounding environment is a mix of uses and land use types including established industrial/commercial buildings, newly built commercial buildings, residential and recreational and agricultural. The range of uses and building typology combines to create fragmented or 'transitional' landscape character.
- 1.48 The transitional and fragmented character of the Site is reflective of the urban fringe location and the SDCC Development Plan land allocations in the area<sup>9</sup>. The Site is located within land allocated to enterprise and employment uses, with surrounding areas allocated to a mix of uses including: open space and recreation; rural amenity and the development of agriculture; new and established.
- 1.49 Analysis of historical OS Maps show the expansion of the urban environment into the former agricultural field network. The Site is on the transitional edge of the LCA, within an area that is already currently influenced by surrounding activities. The combined developments contribute to an increasingly industrial and commercial area within the urban character type rather than a rural landscape.
- 1.50 There are no designations directly associated with the Site. The Grand Canal was proposed as a Natural Heritage Area (pNHA) in 1995 but this has not been confirmed as a NHA designation. The Grand Canal is located approximately 2km north of the Site. The canal is a man-made waterway linking the River Liffey at Dublin with the Shannon at Shannon Harbour and the Barrow at Athy<sup>10</sup>. The proposed designation comprises the canal channel and the banks on either side. A range of different habitats are found within the canal boundaries: hedgerow; tall herbs; calcareous grassland; reed fringe; open water; scrub and woodland<sup>11</sup>.

<sup>8</sup> Minogue and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd (2015) *Landscape Character Assessment of South Dublin County*. Available at: [https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O\\_Devaney\\_Gardens\\_EIS\\_-\\_Appendix\\_8.1\\_-\\_Site\\_Synopses.pdf](https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O_Devaney_Gardens_EIS_-_Appendix_8.1_-_Site_Synopses.pdf). Accessed 22 July 2021.

<sup>10</sup> National Parks & Wildlife Service (1995) *Site Synopsis; The Grand Canal*. Available at: [https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O\\_Devaney\\_Gardens\\_EIS\\_-\\_Appendix\\_8.1\\_-\\_Site\\_Synopses.pdf](https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O_Devaney_Gardens_EIS_-_Appendix_8.1_-_Site_Synopses.pdf). Accessed 22 July 2021.

- 1.51 The stretch of canal in proximity to the Site is noted to be of particularly high diversity in flora and reported evidence of Otter spraints found along the towpath, particularly where the canal passes over a river or stream<sup>12</sup>. The ecological value of the canal is understood to be due to its diversity and provision of refuge for species threatened by modern farming<sup>13</sup>.
- 1.52 Within the context of the Site, the canal is judged to be a High sensitivity receptor due to its pNHA designation, its Green Infrastructure function and its prominent role in defining the character of the Newcastle Lowlands LCA. These features are judged to contribute to its High landscape value. Its susceptibility to change will vary depending on the development and location.

## Architectural

- 1.53 There are no built heritage assets on the site, or in the immediate vicinity. Assessment of built heritage assets within the 1.5km study area include 27 buildings listed in the National Inventory of Architectural Heritage. Their distribution can be seen in Figure 4, 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 12<sup>th</sup> 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. Due to their listed status these features they are classified as Medium sensitivity.
  - 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 Kilarberry House (11209001), a Georgian house, described in the listing as 'set in the rural' setting. Due to their listed status these features are classified as of Medium sensitivity.
  - 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'<sup>14</sup>. Due to their listed status these features are classified as of Medium sensitivity.
  - 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 (Milltown); 11208016 (Polly Hops), 11208006 (Milltown); 11208005 (Milltown gateway). Due to their listed status these features are classified as of Medium sensitivity.

## The Site

- 1.54 The Baldonnel stream runs through the Site in a southeast to northwest direction, flowing toward the northwest. The stream continues to the Grand Canal, pNHA, approximately 2km north. The LCA assessment describes 'woodlands and habitats associated with the canal are important ecological features' and (as mentioned above) mitigation measures for development in the LCA look to explore potential to enhance green infrastructure linked to the Grand Canal. Scrub vegetation and trees border

<sup>11</sup> National Parks & Wildlife Service (1995) *Site Synopsis; The Grand Canal*; 002104. Available at: [https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O\\_Devaney\\_Gardens\\_EIS\\_-\\_Appendix\\_8.1\\_-\\_Site\\_Synopses.pdf](https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O_Devaney_Gardens_EIS_-_Appendix_8.1_-_Site_Synopses.pdf). Accessed 22 July 2021.

<sup>12</sup> Office of Public Works (1992) *Ecological Survey of the Grand Canal*. Available at: [https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O\\_Devaney\\_Gardens\\_EIS\\_-\\_Appendix\\_8.1\\_-\\_Site\\_Synopses.pdf](https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O_Devaney_Gardens_EIS_-_Appendix_8.1_-_Site_Synopses.pdf). Accessed 22 July 2021.

<sup>14</sup> National Inventory of Architectural Heritage (2021) Website Available at: <https://www.buildingsofireland.ie/>. Accessed 22 July 2021

1.66 In the far-ground, the foothills of the Dublin Mountains are visible, gently undulating in the distance. A faint network of fields and hedgerow boundaries can be seen on the hills.

1.67 The Site and the elements within it are not visible from this view.

1.68 The receptors associated with this location and their sensitivity are summarised below:

- **Recreational** receptors: judged to be of **Medium** sensitivity due to:
  - the likelihood of being involved in recreational activities at a pNHA designated landscape feature.
  - limited susceptibility by the:
    - presence of already visible commercial buildings from the viewpoint; and
    - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

1.69 VP-02: New Nangor Road at the roundabout junction with Baldonnel Road looking south east.

1.70 The viewpoint location is representative of the view experienced by people travelling east along New Nangor Road as they approach the Site by both car and foot on the pavement that runs adjacent to the road. The view is generally open with low-lying land and commercial buildings.

1.71 In the immediate foreground is a mix of tarmac and brick paving with some textured surfacing indicating a pedestrian crossing. The paved area is bordered by grasses with a visible far bank sloping down, indicating the course of the Baldonnel stream. A small area is bounded by wooden fencing. A low wall with regularly spaced pillars joined by metal railings runs along the New Nangor Road into the distance. Street lighting and road signage are visible adjacent to the road.

1.72 A relatively flat grassed area is adjacent to the far side of the wall with a small clump of scrub vegetation in the centre and right of the view, partially obscuring a large mound of exposed earth. A few scattered trees and large shrubs are visible in the left of view, with several grass mounds visible behind. Beyond these grassed mounds, glimpses of the Dublin Hills can be seen in the distance.

1.73 In the mid-ground view, behind the mound of exposed earth to the right, is a large commercial building currently under construction with two cranes visible. Five thin structures run vertically up the side of the building, protruding above the building roof line. To the left, part of a large dark grey, rectangular building can be seen adjacent to the new Nangor Road.

1.74 The receptors associated with this location and their sensitivity are summarised below:

- **Transport** receptors: judged to be of **Low** sensitivity due to:
  - their experience of the view as a secondary activity as they travel or participate in employment.
  - limited susceptibility by the:
    - presence of industrial buildings and construction activities already present; and
    - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

### VP-03: Baldonnel Road junction with Profile Park Road looking east

1.75 The viewpoint location is representative of the view experienced by people travelling by car or foot along Baldonnel Road. The view is enclosed with raised land and buildings following the Profile Park Road as it disappears to the right behind raised land.

1.76 A large pillar and gate structure is visible at the side of the road. Cycle lanes run either side of the road for the near part, merging with the pedestrian path along Profile Park Road. Road signage and roadside lighting punctuate the view along the road. On the left side of the road a large white commercial building with a row of windows on the second storey is visible and prominent rectangular,

dark grey roof structures. In the centre distance is a grey industrial building with no visible windows or features.

1.77 The receptors associated with this location and their sensitivity are summarised below:

- **Transport** receptors: judged to be of **Low** sensitivity due to:
  - their experience of the view as a secondary activity as they travel or participate in employment.
  - limited susceptibility by the:
    - presence of industrial buildings and construction activities already present; and
    - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

### VP-04: Baldonnel Road near Newcastle Motors looking north east

1.78 The viewpoint location is representative of the view experienced by people travelling by car or foot along Baldonnel Road and those working or residing within this location. Unfortunately, a LVIA standard photograph was not obtainable at this location due to a resident not allowing activity within proximity to their property.

1.79 The foreground of view is dominated by road verge grasses with established hedgerow.

1.80 There are no visible features through the vegetation at this time of year. During winter months with the loss of foliage, it is anticipated there will be greater visibility of features beyond the trees and hedgerow.

1.81 The receptors associated with this location and their sensitivity are summarised below:

- **Residential** receptors: judged to be **Medium** due to:
  - Further commercial development fragmenting the rural character of views from their properties.
- **Transport and Employment** receptors: judged to be **Low** sensitivity due to:
  - their experience of the view as a secondary activity as they travel or participate in employment.
  - limited susceptibility by the:
    - presence of industrial buildings and construction activities already present; and
    - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

### VP-05: Baldonnel Road near the entrance to the Casement Aerodrome looking north west

1.82 The viewpoint location is representative of the view experienced by people travelling by car or foot along Baldonnel Road and those working or residing within this location. The view foreground consists of medium to large boulders and small elements of waste including some building debris. To the rear of the boulders, a low brick wall is glimpsed through hedgerow vegetation with a closed gate providing access to the field beyond. In the mid ground, agricultural buildings of varying age form the field boundary, older buildings are overgrown with vegetation and scattered trees emerge from behind the buildings. The field forms the mid ground view to the right of the view and consists of long grass around the boundary and short grass areas away from the boundary. To the right of the view, to the rear of the field, a white commercial building is visible with protruding roof structures. In the centre of the mid view, a tree line is visible interspersed with lighting structures. In the mid ground, to the left of the large commercial buildings are visible a mix of dark grey and grey with some coloured shapes visible on one facade. In the far ground large commercial buildings with protruding structures

right of the path a mown grass area runs between the road and path with a lighting structures adjacent to the road kerb as the road approaches the junction with a roundabout.

1.101 In the midground, a small hedgerow is visible as the path curves to the left as the road joins the roundabout junction. Lighting structures run along the midground view interrupting the skyline, indicating a road running horizontally across the view from the roundabout, although the road surface is not visible. In A roundabout is visible to the right of the midground view, with a large sculpture located in the centre made up of cylinder shapes of different colours. Directional road signs are visible on the roundabout. In the midground, at the far-side of the roundabout a tarmac road runs directly away from the viewpoint towards the horizon line with lighting structures protruding vertical along the road alignment. Established trees and hedgerows run along the midground view forming a sporadic treeline across the view.

1.102 In the far distance, a large grey commercial building is visible with tall vertical structures interrupting the skyline. Through the gaps in the treeline hills can be seen in the centre of the view. Through gaps in the tree line to the left of the view a grey commercial building with roof structures is visible. A crane structure is protruding into the skyline for this area of the view. From this location, the Site is directly visible.

1.103 The receptors associated with this location and their sensitivity are summarised below:

- **Transport and Employment** receptors: judged to be **Low** sensitivity due to:
  - their experience of the view as a secondary activity as they travel or participate in employment.
  - limited susceptibility by the:
    - presence of industrial buildings and construction activities already present; and
    - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.
- **Recreational** receptors: judged to be of **Low** sensitivity due to:
  - the likelihood of being involved in recreational activities at the Castle Grange Golf Club.
  - limited susceptibility by the presence of industrial buildings and construction activities already present;

### VP-10: Profile Park Road on the south west corner of the Site looking north east

1.104 The location is representative of the view experienced by people travelling along Profile Park Road and those working within this location. The view is generally open with road infrastructure in a greenfield setting.

1.105 In the foreground, a lighting pole is visible with road verge grass planting. A tarmac road, with grass centre area separating the lanes, runs across the view dominating the mid and foreground area of the view. At the far side of the road, a gravel road verge transitions into a grass field with scattered established trees.

1.106 In the far ground a continuous treeline runs along the horizon, with street lighting poles interrupting the sightline.

1.107 The Site is clearly visible from this location.

1.108 The receptors associated with this location and their sensitivity are summarised below:

- **Transport and Employment** receptors: judged to be **Low** sensitivity due to:
  - their experience of the view as a secondary activity as they travel or participate in employment.
  - limited susceptibility by the:

- presence of industrial buildings and construction activities already present; and
- ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

### VP-11: Profile Park Road on the south west corner of the Site looking north east

1.109 The view is dominated by a dual carriageway bridge structure with a pedestrian path and cycle lane. A fence runs along the left side of the bridge with regular light poles protruding from the fence structure at regular intervals. To the left a grass slipway verge with established deciduous trees forms the left mid-ground view.

1.110 In the far distance, road signage for a roundabout can be seen with traffic lights. A tree line runs across the far distance view with a mix of trees varying in height and distance.

1.111 The Site is not visible from this location.

1.112 The receptors associated with this location and their sensitivity are summarised below:

- **Transport and Employment** receptors: judged to be **Low** sensitivity due to their experience of the view as a secondary activity as they travel or participate in employment.

1.125 Several berms would be located along the east boundary with new tree planting providing additional vegetation to the maintained boundary hedgerow. Along the south boundary either side of the access road, new berms would be planted with a triple row of staggered woodland native trees. The existing hedgerow would be retained along the west boundary with additional native and wildflower meadow planting proposed to improve biodiversity. These boundary treatments would help to mitigate the impact of the building to some degree and increase the vegetation and biodiversity potential within the Site.

## Demolition and Construction Stage

1.126 The indicative construction programme is set out in Chapter 5 of this EIA, with peak construction during 2022.

1.127 During this period, a 2.4m perimeter site hoarding and access/egress gates will be placed and maintained throughout the duration of the works screening activities within the site to the surrounding areas. During this period, there would be significant disruption to the onsite landscape features.

1.128 A range of plant equipment will be used during this stage including a crane and Heavy Good Vehicle deliveries that is likely to be visible from areas surrounding the Site. For the purpose of this EIA, it is assumed that all construction traffic enters and exits the site via Falcon Avenue.

1.129 Building demolition is expected to be undertaken using excavators fitted with crushing attachments and where practically possible, machinery would be located as far as possible from or shielded from sensitive receptors, such as the residential property to the northeast of the site.

1.130 The realignment of the Baldonnel Stream would commence at the earliest opportunity to allow the stream and associated landscaping to mature through the demolitions and construction works programme. All works would be confined within the protection barriers situated 5 m from the northern bank of the existing stream. A temporary construction access point would be established off the Nangor Road using the existing house access.

1.131 Appropriate material excavated during ground works would be re-used as part of earthworks and as temporary back-fill where necessary. It is proposed that some of the spoil generated will be reused under and as part of landscaped areas (including bunds) where suitable and/or in the formation level for the construction compound.

1.132 Landscaping associated with the data center facilities would be constructed upon substantial completion of construction works to minimise potential plant material loss. Topsoil would either be reused or imported to fill and shape landscaped areas.

1.133 The site is located within an area that has had successive recent developments of a similar scale to the Proposed Development. The adjacent Site is currently under development at the time of this LVIA. It is judged that this stage of the Proposed Development would be experienced within the landscape as a continuation of current experienced activity, limiting the magnitude of impacts and susceptibility of off-site landscape receptors to this stage.

1.134 Further mitigation measures are outlined in Chapter 5 of this EIA to minimise the visual impacts during this stage.

1.135 Based on the landscape features identified in the Baseline Assessment, it is judged that the impact to the Landscape Character and off-site receptors would be **imperceptible to slight negative** magnitude of impact change based on the following assessment on the magnitude of impact:

- High Sensitivity receptors: For the Grand Canal and NIAH listed buildings, it is judged that they will experience a no change/negligible magnitude of impact due to their distance from the development and the current existence of similar activity. The scale of the effect on these landscape receptors is judged to be **slight negative and not significant** in EIA terms.

1.136 The magnitude of impact to the onsite receptors during this stage is judged to be low due to their location within a business park area:

- The Baldonnel Stream is a medium sensitivity receptor with a low susceptibility to change due to previous realignments and culverting close to the Site. The magnitude of impact is mitigated by the mitigation measures described in Chapter 5 of this EIA and is judged to be Low (Negative). The scale of effect on the stream during construction is judged as **slight negative** during this stage and considered not significant in EIA terms.
- The Site trees are judged of Medium sensitivity with no change/negligible magnitude of impact during this stage due to mitigation measures described in Chapter 5 of this EIA. The scale of effect on site trees is judged as **imperceptible negative** during this stage and considered **not significant** in EIA.
- The Site hedgerows and associated trees are judged of high sensitivity with no change/negligible magnitude of impact during this stage due to the mitigation measures described in Chapter 5 of this EIA. The scale of effect is judged to be short term and **slight negative** and therefore **not significant** in EIA terms.

1.137 A summary of the assessment on Landscape character and receptors during the Demolition and Construction stage is provided in Table 1.5

**Table 1.5 Demolition and construction landscape impacts**

Receptor	Sensitivity	Description of impact	Magnitude	Scale	Significance
Newcastle Low-lands LCA	Medium	Increased development within urban fringe transition area	No change/ Negligible	Imperceptible	Not significant (Negative)
The Grand Canal	High	Disturbance of linked green infrastructure	No change/ Negligible	Slight	Not significant (Negative)
NIAH Listed features	High	Disturbance and impacts on character amenity and tranquility	No change/ Negligible	Slight	Not significant (Negative)
Baldonnel Stream	Medium	Disturbance and change resulting from realignment	Low	Slight	Not significant (Negative)
Site Trees	Medium	Removal and disturbance impacts on function and character value	No change/ Negligible	Imperceptible	Not significant (Negative)
Site hedgerows and associated trees	High	Disturbance and impacts on function and character value	No change/ Negligible	Slight	Not Significant (Negative)

## Operation

1.138 During Operation, the building would be a new feature within the landscape, similar in size and visual appearance to surrounding developments. The size, scale and operation of the building are consistent with surrounding land uses and therefore it is anticipated that the Proposed Development would not be out of context. The noise and emissions from the building are covered in Chapters 8 and 9 of this EIA. Due to the location of the Proposed Development within a commercial and industrial area. The

## Visual

1.144 As discussed in the methodology above, The Visual impacts and effects have been assessed against the baseline using photomontages of the operational building (Appendix 1.3). Construction and Demolition impacts and effects are not reviewed separately due to the ongoing construction and development within the Proposed Development study area. It is anticipated that the continuation of activity will result in a negligible/no change magnitude of impact across viewpoints and receptors resulting in imperceptible neutral impact that is not significant in EIA terms.

### VP-01: The Grand Canal looking south east

1.145 The viewpoint location is representative of people using the footpath along the Grand Canal pNHA looking south east across arable fields towards the Grange and Profile Park enterprise development areas.

1.146 The proposed structures are of similar height to the surrounding buildings within the area with the flue structures visible from this location, which is judged to be a Low Negative magnitude impact due to the surrounding similar structures in the location. The Recreation visual receptors are judged to be of medium sensitivity.

1.147 Due to the small amount of visible tree growth at this location, it is judged that the scale of effect at both day one and year five is judged to be **slight negative** level of effect. Accordingly, the Proposed Development is **not** anticipated to have a **significant** effect in EIA terms on VP-01 during operation at day one or year five.

### VP-02: New Nangor Road at the roundabout junction with Baldonnel Road looking south east

1.148 The viewpoint location is representative of people travelling east along the New Nangor Road, or south along Baldonnel Road.

1.149 The flue structures running along the western side of the proposed structure would be visible in the distance, with two protruding above the hill line in the far distance. Due to the distance of the structures, the similar structures and development underway in the foreground, it is judged that the magnitude of impact will be low negative. The travel receptors in this location experience the view as a secondary activity and are judged to be low sensitivity.

1.150 The scale of effect at VP-02 from the Proposed Development is judged to be **imperceptible negative** and **not significant** for day one and year five of operation in EIA terms.

### VP-03: Baldonnel Road junction with Profile Park Road looking east

1.151 The viewpoint location is representative of people travelling along Baldonnel Road or east along Profile Park Road.

1.152 The proposed structure will be partially visible from this point, through gaps between other commercial buildings of similar size and materiality. The row of flue structures extending above the roof and the western side of the building will be visible from this location. Within this setting, the building will not look out of context with its surroundings and is relatively small in size at this distance in the context of the large commercial buildings in the foreground. The magnitude of impact at this location is judged to be low. Transport and employment receptors will experience the view as a secondary activity and are judged to be of low sensitivity to the Proposed Development.

1.153 The scale of effect at VP-03 from the Proposed Development is judged to be imperceptible negative and not significant for day one and year five of operation in EIA terms.

### VP-04: Baldonnel Road near Newcastle Motors looking north east

1.154 The viewpoint location is representative of a small number of people living and working at this point of Baldonnel Road. It is also representative of travel receptors moving along the road.

1.155 Although an acceptable image was not available from this location due to a resident refusing to allow photography to take place within the vicinity of their property, the distance from the Site and the dense foliage during summer results in the proposed structures not being visible from this location. However, views of the Proposed Development may be possible during winter when foliage is less dense. The distance from the Site, and the similar surrounding developments in close vicinity to the building are judged to be a Low Negative magnitude of impact. The employment and travel receptors are judged to be low sensitivity due to their distance from the Site and involvement in primary activities not dependent on the view. Residents are judged to be of medium sensitivity.

1.156 Taking the highest sensitivity of receptor, the scale of effect is judged to be a **slight negative**. Accordingly, the Proposed Development is **not** anticipated to have a **significant** effect on VP-04 during operation at day one or year five in EIA terms.

### VP-05: Baldonnel Road near the entrance to the Casement Aerodrome looking north

1.157 The viewpoint location is representative of people working or living in the vicinity or travelling along Baldonnel Road.

1.158 The proposed structures are visible from this location in the midground of the view. The building and protruding roof structures are visible rising up beyond the treeline. The building will obscure the commercial buildings visible in the far distance and will continue the midground pattern of commercial building structures across the view. The distance from the Site, and the similar surrounding developments in close vicinity to the building are judged to be a low negative magnitude of impact. The employment and travel receptors are judged to be low sensitivity due to their distance from the Site and involvement in primary activities not dependent on the view. Residents are judged of medium sensitivity in this location.

1.159 Taking the highest sensitivity of receptor, the impact is judged to be a **slight negative** scale of effect. Accordingly, the Proposed Development is **not** anticipated to have a **significant** effect on VP-05 during operation at day one or year five in EIA terms.

### VP-06: New Nangor Road to the north west corner of the Site looking south east

1.160 The viewpoint location is representative of the view of people working within the area or travelling east along New Nangor Road. The photomontage (Appendix 1.3) have been provided to demonstrate the visual impact of the Proposed Development with the boundary landscaping treatments. In this assessment the worst-case scenario of no landscaping is assessed.

1.161 From this location, the building will be clearly visible by receptors. The size of the building and the flue structures running along the west side of the building will dominate the mid-distance view and skyline. The impact of the scale of the building is mitigated to some extent in the foreground by the established vegetation. In winter months, the vegetation may be less effective in mitigating the visual impact of the building.

1.162 Employment and travel receptors are judged to be of low sensitivity due to the location within a business park and proximity of buildings of a similar scale and appearance.

1.163 Change to this viewpoint is judged to result in a magnitude of moderate negative due to the scale and proximity of the Proposed Structures. The scale of effect is judged to be a **slight negative** at day one and year five of operation and is **not** considered to have a **significant** effect on VP-06 in EIA terms.



# Assessment of Residual Effects

## Additional Mitigation

1.180 No additional mitigation measures are proposed.

## Enhancement Measures

1.181 No additional enhancement measures are proposed

## Demolition and Construction Stage

1.182 The residual demolition and construction effects remain as reported in the assessment of effects section:

- Temporary to short-term **slight negative** effects that are **not significant** in EIA terms from impacts on landscape character through disturbance to features offsite and onsite.
- Temporary to short-term **imperceptible neutral** effects on visual amenity at VP1-11 surrounding the site that are **not significant** in EIA terms.
- Permanent **slight negative** effects on the Baldonnel Stream landscape feature due to realignment and disturbance that are **not significant** in EIA terms.

## Operation Stage

1.183 The residual operation stage effects at year 5 remain as reported in the assessment of effects section:

- Permanent, **slight / not significant positive** effects on the landscape character and associated features that are **not significant** in EIA terms.
- Permanent, **moderate positive** effects which are considered **significant** in EIA terms on the site hedgerows and associated trees due to the additional planting and landscape features planned along the boundaries of the site.
- Permanent, **imperceptible negative and neutral to slight negative** effects on the visual amenity experienced by receptors at locations VP1-11 around the site which are considered **not significant** in EIA terms.

# Summary of Residual Effects

1.184 Table 1.7 provides a tabulated summary of the outcomes of the assessment of the proposed development. Where **significant positive** effects are likely these are highlighted in bold green and where **significant negative** effects are predicted these are highlighted in bold red.

Table 1.7: Summary of Residual Effects

Receptor	Description of Residual Effect	Additional Mitigation	Scale and Significance of Residual Effect **	Nature of Residual Effect*					
				+		-			
				D	I	P	T	R	IR
Demolition and Construction									
Landscape									
Newcastle Lowlands Character Area	Increased construction activity within allocated business park area. Similar	None required	Slight	-	D	P	R	St	

Table 1.7: Summary of Residual Effects

	in size and scale to existing activity								
Site Hedgerows and associated trees	Disturbance and impacts on function and character value	None required	Slight	-	D	T	R	St	
The Grand Canal	Disturbance of linked green infrastructure	None required	Slight	-	D	T	R	St	
NIAH Listed Features	Disturbance and impacts on character amenity and tranquility	None required	Slight	-	D	T	R	St	
Baldonnel Stream	Disturbance and change resulting from realignment	None required	Slight	-	D	P	R	St	
Site trees	Removal and disturbance impact on function and character value	None required	Slight	-	D	T	R	St	
Visual									
VP1-11	Contribution to ongoing construction within area	None require	Imperceptible	+/-	I	T	R	St	
Operation									
Landscape (at year 5)									
Newcastle Lowlands Character Area	Additional centre development within a business park on the urban fringe with boundary treatments that contribute to biodiversity and green infrastructure	None required	Slight	+	D	P	R	Lt	
The Grand Canal	Improved green infrastructure linked to sight	None required	Slight	+	I	P	IR	Lt	
NIAH Listed features	Increased centre development mitigated by increase in landscaping	None required	Not significant	+	I	P	IR	Lt	

Proposed Development boundary treatments are expected to soften the buildings impact within the landscape and contribute to a new treeline helping to mitigate any cumulative effects.

### Visual

1.198 On completion, glimpses of the Proposed Development would be visible from a number of the VPs selected to represent surrounding visual receptors. The Proposed Development will not be visible to the north due to the extensive existing industrial/commercial development in the Grange Castle Business Park. From the east, the Proposed development is well screened by the existing vegetation (see VP 07 & 08 images) although this may be less effective during winter when foliage is less.

1.199 During operation, planned boundary are anticipated to increase, providing further screening of the Proposed Development. To the south, the Proposed Development will be to the fore of other large structures and will merge with, and screen these from view, rather than increasing the scale of development within the Newcastle Lowlands LCA. The cumulative developments to the west would reduce the amount of the Proposed Development visible from VP02, VP03 and will not contribute to a 'massing' or clumping in the landscape as will be behind other large building structures.

1.200 Medium sensitivity receptors (residential and recreational) are located at sufficient distance (VPs 01; 04; 05) from the Proposed Development that cumulative impacts are judged unlikely to result in an increase in magnitude of impact or scale of effects experienced.

1.201 From VP locations 01, 02, 03, 04, 05, 11 it is anticipated that the Proposed Development operational activities will be screened by other developments (established) or under way and therefore will not have a cumulative impact on visual receptors.

1.202 At the closest VP locations, (06, 07, 08, 09, 10) operational impacts will be mitigated by site boundary treatments including increased planting, berms and new wetland features. At this proximity, cumulative impacts are unlikely to be experienced by the low sensitivity receptors associated with these VP locations (transport and employment) due to the surrounding industrial and commercial character of the immediate area.

1.203 It is judged that operation cumulative effects are unlikely to increase the magnitude of impact on visual amenity at the VP locations and therefore **no significant effects** are identified.

1.204 Table 1.8 provides a summary of the likely cumulative effects resulting from the proposed development and the cumulative developments.

Cumulative Development	Demolition and Construction		Operation	
	Cumulative Effects Likely?	Reason	Cumulative Effects Likely?	Reason
Landscape	No	Impacts and effects experienced will not be out of context with previous activity and distance of high sensitivity landscape receptors mean that impacts to character, amenity or value are unlikely.	No	The scale and type of building is appropriate within the context of the business park area of the LCA. High sensitivity receptors are sufficient distance from the area that the cumulative developments are unlikely to increase landscape impacts or scale of effects.
Visual	No	Impacts and effects experienced will not	No	The scale and type of building is appropriate

**Table 1.8 Inter-Project Cumulative Effects**

Cumulative Development	Demolition and Construction		Operation	
	Cumulative Effects Likely?	Reason	Cumulative Effects Likely?	Reason
		be out of context with previous activity those associated with an industrial/commercial fringe. Distance of medium sensitivity visual receptors mean that an increase in magnitude of impacts is unlikely.		within the context of the business park area of the LCA and receptors will have the ability to accommodate the development of the type proposed without changes to visual amenity.

## Summary of Assessment

### Background

1.205 This chapter has detailed the potential Landscape and Visual impacts due to the construction and operation stages of the proposed development. The assessment of construction and operation stages has been undertaken taking into account the relevant national and local guidance and regulations.

1.206 Baseline assessment has been made using publicly available information and site investigation assessing visual amenity. The baseline assessment indicates that:

- the site is located within an area allocated for strategic employment development by the Regional and Local Authority.
- the proposed development is located within a Data Center Park on the urban fringe of Ireland's capital city, confirming that the location is consistent with the approach set out in the National Framework for this type and scale of development.
- the site is within an area of the Landscape Character Assessment (LCA) that is on the transition between land character types: urban and limestone farmland. It is an area allocated to enterprise and employment development with developments of similar scale and type surrounding it. Within the context of the LCA, this is an area that has already undergone transitional change from agriculture to industrial and commercial land use.
- The boundary treatments take into account the LCA development mitigation advice to establish 'a linear park to enhance green infrastructure' and 'planting and other landscape design measures including planting with native hedgerows'. The proposed landscaping also meets the SDCC Development Plan Green Infrastructure Objectives: G2 Objective 1,2,5,9 and G3 Objective 1, 5, and G6 Objective 1..
- The maintenance and restoration of the hedgerows also meet SDCC requirements under HCL15 Objective 3 and Section 11.5.5 Landscape, of the Variation 2.

1.207 Taking into account national and local policy, it is judged that the Proposed Development does meet the criteria for the 'limited opportunity' to accommodate development within the LCA.

### Demolition and Construction Effects

1.208 Within the LCA context, the assessment judged the Proposed Development to have a **slight negative** effect on the Newcastle Lowlands LCA that is **not significant** in EIA terms during the demolition and construction stage and in the short term.

# 2 CULTURAL HERITAGE

## Introduction

- 2.1 This chapter of the EIA reports on the likely significant cultural heritage effects that are predicted to arise from the demolition and construction stage and the operation stage of the proposed development.
- 2.2 The chapter describes the cultural heritage policy context; the methods used to assess the potential impacts and likely effects; the baseline conditions at and surrounding the site; the likely cultural heritage effects taking into consideration embedded mitigation; the need for additional mitigation and enhancement; the significance of residual effects; and inter-project cumulative effects.
- 2.3 The chapter is supported by the following technical appendices in EIA Volume 2:
  - Appendix 2.1: Legislation and planning policy
  - Appendix 2.2: Gazetteers of archaeology and architectural heritage in the 1km study area
  - Appendix 2.3: Archaeological Consultancy Services Unit, 2020, Geophysical Survey of a Site at Profile Park, Ballybane and Kilbride, Co. Dublin
  - Appendix 2.4: Report on the Archaeological Assessment at Profile Park, Ballybane & Kilbride, Co. Dublin (Excavation Licence No.: 21E0061), Archaeological Consultancy Services Unit, March 2021

## Methodology

- 2.4 The assessment has been informed by the following legislation, policies, and published guidance:
  - National Legislation and Policy:
    - National Monuments Acts 1930-2014.
    - Heritage Act 1995.
    - Architectural Heritage (National Inventory) and Historic Monuments Act 2000.
    - The Planning and Development Act 2000 as amended.
    - Planning and Development Regulations 2001-2019 (as amended).
    - National Planning Framework 2018.
  - Regional Policy:
    - Eastern and Midland Regional Assembly, 2019 Regional Spatial and Economic Strategy 2019-2031.
  - Local Policy:
    - South Dublin County Council Development Plan 2016-2022.
  - National guidance and industry standards:
    - Department of Arts, Heritage, Gaeltacht and the Islands, 1999, Frameworks and Principles for the Protection of the Archaeological Heritage.
    - EPA; 2017 Guidelines on The Information to be Contained in Environmental Impact Statements, (Draft).
    - Office of the Planning Regulator, January 2021, Archaeology in the planning process, Planning Leaflet 13.
    - Office of the Planning Regulator, January 2021, A guide to Architectural Heritage, Planning Leaflet 12.

## Assessment Scope

- 2.5 Chapter 2: EIA Process and Methodology explains the assessment methodology used throughout this EIA. The assessment in this chapter is a qualitative one, and the evaluation of significance and effects is ultimately a matter of professional judgement.

## Technical Scope

- 2.6 The technical scope of the assessment has considered the following:
  - Disturbance or removal of on-site terrestrial-based archaeological deposits during construction.
  - Effects on historic landscape character as a result of the development land take and removal of existing site features.
  - Effects on cultural heritage assets as a result of the construction processes, e.g. visual presence, noise, vibration, potential damage to trees or structures.
  - Effects on cultural heritage assets as a result of the presence of the new built form, its siting, scale, extent, appearance and character, and the new road layout, access, and patterns of circulation

## Spatial Scope

- 2.7 The study area for this assessment covers an area of 1km radius from the site boundary (see Figure 2.1). The study area is sufficiently large to allow a judgement to be made of the likely archaeological potential of the site, based on the evidence in the surrounding area, and to allow assessment of effects on structures and monuments because of changes to historic or landscape character or visual changes.

## Temporal Scope

- 2.8 The assessment has considered impacts arising during the demolition and construction stage, which would be expected to be temporary and short term (1-7 years) in nature, and from the operation stage which would be expected to be permanent and long-term in nature (i.e. more than 20 years).

## Baseline Characterisation Method

### Desk Study

- 2.9 This chapter assesses the cultural heritage resources of the site and its environs as they are identified through statutory designation and inventory, the national or local archaeological record, documentary sources or other studies. In order to establish baseline cultural heritage conditions in the study area, the relevant data was reviewed and assessed. Data was obtained from the following sources:
  - Sites and Monuments Record (SMR), including the Register of Historic Monuments (RM) and the Record of Monuments and Places (RMP).
  - National Inventory of Architectural Heritage (NIAH).
  - Record of Protected Structures (RPS, South Dublin County Council).

with some cremated bone, pottery and a bead found within the interior of the enclosing ditch. Some 100 metres to the south of this barrow site, topsoil-stripping in 2000 revealed the remains of a small fulacht fiadh (TOR11, DU017-084) consisting of a small trough, a spread of heat-cracked stone and a linear gully feature to the south west of the trough. No dateable artefacts were recovered for this site, but they can range in date from 1500-500BC (Mid-Late Bronze Age).

2.24 There are no further prehistoric sites recorded in the study area.

#### **Early Medieval Period (AD400 – 1100)**

2.25 There are two concentric enclosure sites, of probable early medieval origin, recorded as cropmark features on aerial photographs to the west of the site. The outline of one at Ballybane townland (TOR14, DU021-108) is discernible on Figure 2.2, while another recorded enclosure (TOR15, DU021-109) is no longer present due to the recent construction of the industrial units. Neither site is indicated on any edition of the Ordnance Survey maps (see Figures 2.3a & 2.3b).

#### **Medieval Period (1100–1600)**

2.26 The majority of the sites recorded in the study area relate to the medieval period. The placename Kilbride is first recorded in 1295, and there are records of the linked estate of Kilbride and Nangor into the early 17th century (see Appendix 2.3). The townland names Ballybane and Kilbride are first recorded in the early 14th century.

2.27 On the south-west edge of the study area are the ruins of the medieval church, the ecclesiastical enclosure, and related features at Kilmactalway (TOR1-4, DU021-003001-003004, RPS 182, RM). The walls of the church survive to eaves level within the walled enclosure in woodland and there are a number of gravestones extant<sup>3</sup>. The ruined church and churchyard at Kilbride (TOR6-8, DU021-005001-005003, RPS 184, RM) survives within an enclosure bounded by low stone walls raised above the fields of the modern farm and is overlooked by the buildings at Casement Aerodrome across the road. There are numerous grave-markers, the most recent dating to the 1930s. Both ecclesiastical enclosure and church sites are recommended for inclusion in the revised RMP.

2.28 There are several examples in the study area of late medieval fortified tower houses, constructed in the 15th and 16th centuries on the edge of the Pale and close to one of the main routes that led from Dublin to the south west.

2.29 On the north edge of the study area, Grange Castle (TOR12 & 16, DU017-034, RPS132, RM) is the ruins of a three-storey tower house that was constructed around 1580. The tower preserves a vaulted basement, a projecting turret with spiral stair, and a garderobe on the south side. The complex was approached from the north on a causeway over a boundary ditch and related features included a stone-lined fishpond. The building was remodelled in c.1750, with the addition of a two-storey house to the west side, with two full height buttresses, and the windows of the earlier range were widened. A courtyard of ancillary and farm buildings was gradually added to the north, and an additional range to the east of the house, which was served by a hearth and a brick chimney attached to the walls of the three-storey tower. The house remained in occupation until the 1980s and then deteriorated to a roofless ruin. The NIAH rating is of regional value for the archaeological, architectural, and historical special interest and the structure is recommended for inclusion in the revised RMP. The ruins have recently been stabilised and restored, and the castle now forms the centrepiece of a new public park within the Grange Castle Business Park.

2.30 The former locations of two other tower houses are recorded to the east of the site at Nangor Castle (TOR13, DU017-037) which was in existence by the 1530s and may have been incorporated into a later 19th century house, since demolished, and at Kilbride to the south (TOR5, DU021-004). The castle site at Nangor is associated with a medieval field system (TOR9, DU017-082) and excavations prior to

development uncovered evidence of earthworks and other boundaries, and material of early medieval to 12th and 13th century date. Both sites are recommended for inclusion in the revised RMP.

#### **Post-medieval Period (1600–1900)**

2.31 The pastoral farming landscape of the study area is shown on the map of Dublin County published by John Rocque in 1760<sup>4</sup>, crossed by the line of the Grand Canal to the north of Grange Castle. The largest holding shown is at Nangor, where the house and group of ancillary buildings are shown alongside an area of woodland and enclosed gardens, approached by an avenue from the south. The dispersed farms and other holdings include to the west a small holding named Ballybawn and further unnamed dwellings on the road. The churches at Kilbride and Kilmactalway are both noted as in ruins, the latter set within a larger building group. At Kilbride the main holding appears to have shifted to the east of the old castle location.

2.32 New gentry scale houses in a classical idiom were constructed at the beginning of the 19th century. Kilcarberry House (TOR17, RPS) is a small country house of c.1810, with a formal front facing south. It has a distinctive porch, and some ancillary buildings survive. It has a NIAH rating of regional value for its architectural, artistic, and technical special interest. The inventory entry notes the rural landscape setting, however, since 1998 the house and ancillary structures has been within the Grange Castle Golf Club, forming part of the car park and maintenance area.

2.33 To the west, north of the old church enclosure at Kilmactalway, Castle Bagot House is a tall three-storey country house constructed in 1800, with a full height canted bay to the front elevation facing south-east. The former designed landscape setting has largely reverted to agriculture, though some woodland boundaries remain and there is a larger area of woodland either side of the approach drive leading from the entrance from the north, which is marked by the gate piers with curved flanking walls. The house has a NIAH rating of regional value for its architectural, artistic, and historical special interest. It is in use as a children's nursery and is part of an expanded building group.

2.34 The Ordnance Survey first edition 6" map (Figure 2.3a) surveyed in 1836, shows the site area as part of an irregular group of fields defined to the south by the boundaries of Kilbride and Clondaikin parishes and crossed by the Baldonnel stream. Much of the western part of the study area is part of the large area of designed landscape at Castle Bagot House, which incorporates the old church and surrounding buildings, with an area of parkland to the north of the house and woodland plantations around the boundaries. The road layout around the park appears to have been amended from that shown on the mid-18th century map, and a further addition is the new straight road at Kilcarberry House. Of the older estates, the building group at Nangor Castle is the most extensive, with an area identified as parkland and a number of enclosed gardens to the west of the house. Grange Castle to the north is shown as a single long range within orchards, with some smaller structures forming a courtyard on the access from the north. The detailed 25" map published in 1908 shows no change to the arrangement of the site, but there are two new unnamed buildings within an enclosure shown on the other side of the road, and the straight boundary and watercourse leading north to the road, which now forms the east site boundary, was in existence. At Kilbride the old castle location is part of the farm buildings of the new Kilbride House to the west.

2.35 Baldonnel Aerodrome, at the south edge of the study area, was established in 1917, and opened in May 1918 as a base for the Royal Flying Corps. Several of the four aircraft hangars of the original aerodrome remain in use, including a flight shed (TOR22) and a general service hangar (TOR24). A further early hangar at the south of the group falls just outside the study area. The aerodrome reopened in 1922 as Air Service HQ for the Air Corps of the Irish Defence Forces. In 1928 it was the start base for the first successful east to west flight across the Atlantic, which is commemorated in a plaque on the flight shed. The layout of the base is depicted on the OS map published in 1937 (Figure 2.3b). Additional buildings were added to the Air Corps base from the 1930s. At the north edge of the building group is the officers' mess of 1932 (TOR19, RPS188), with pavilions either side of the central entrance. The 1937 sports hall (TOR23), is of pre-cast concrete and shows the influence of European Modernism on aviation buildings.

<sup>3</sup> See <https://historicalgraves.com>

<sup>4</sup> See <http://www.dubljinhistoricalmaps.ie>

RM and is recommended for inclusion in the revised RMP. The range of interests are of regional importance; the visual qualities of the recently restored structure and its public profile as part of the park, including the planned limited access to the interior of the monument, are an additional value.

2.48 The closest built heritage asset to the site is Kilcarberry House approximately 620m to the east (TOR17). The formal early 19th century house is included in the RPS because of its special architectural and historic interest. It retains its visual qualities and character although the setting is now dominated by the surrounding golf course.

2.49 Castle Bagot House (TOR18), approximately 660m to the west of the site, is included in the RPS for its special architectural and historic interest. Some elements of the associated designed landscape survive, in the fragmentary woodland boundary plantations and the larger area of woodland on the drive and the gate piers and entrance feature on Baldonnel Road. The character of the setting close to the house is affected by the additional buildings for its use as a children's nursery and crèche.

2.50 The identified structures of heritage interest at Casement Aerodrome (TOR19-24) are part of the large group of buildings at the base on the north edge of the runways. They include several hangars that survive from the original establishment of the aerodrome during WWI and a range of Air Corps buildings dating from the early 1930s to the mid-1940s. All have been altered for their continued use as part of the operational military airbase. The officers' mess, administration building, and the church are included in the RPS for their special architectural and historic interest.

2.51 All of these structures are of regional value. The recently restored Grange Castle has an additional cultural and social value as the focus of the new public park created at the centre of the Grange Castle Business Park.

## Sensitive Receptors

2.52 The receptors identified as sensitive to the proposed development and which have been 'scoped-in' to the assessment are summarised in Table 2.2.

Receptor
Archaeology – on site
Archaeology – study area
Kilmactalway church and related features (TOR1-4)
Kilbride church and related features (TOR6-8)
Grange Castle (TOR12 and 16)
Kilcarberry House (TOR17)
Castle Bagot House (TOR18)
Buildings at Casement Aerodrome (TOR19-24)

Table 2.2: Summary of Sensitive Receptors

## Assessment of Effects

### Demolition and Construction Effects

#### Archaeology

2.53 The proposed development will involve groundworks and the stream realignment, which will inevitably have an impact on below ground archaeological remains where they are yet unknown and unrecorded. The risk of impacts would come from the possible damage to any below ground sites / features / localised findspots. There would be no direct construction effects on any archaeological sites recorded within the SMR or RMP for the site. The recent geophysical survey revealed no probable or possible sites/features of

likely archaeological origin and this has been borne out by the negative results from the test trenching exercise undertaken across the site area in March 2021 (see Appendix 2.4). The northern and southern portions of the site revealed a high degree of modern disturbance while the south eastern field parcels show probable reprofiling or the presence of dumped deposits/disturbance likely to be a result of the extensive work creating the access roads and site clearance for Profile Park. There was no clear identification of features comparable to other sites in the vicinity, namely the distinctive curvilinear enclosures of early Medieval date. The demolition and construction stage would result in a neutral effect of imperceptible significance. This would be permanent and irreversible and would not be significant in terms of EIA.

### Built Heritage

2.54 There would be no direct construction effects on any of the identified built heritage features in the study area during the demolition and construction stage. The site is a distance away from the protected structures in the study area and the visual presence of construction activity, including cranes, and the related noise and vibration would not be perceptible from any of the assets or their setting. The ongoing construction of the business parks is also an established aspect of the character of the study area. The demolition and construction stage would not result in any change to the buildings of heritage interest in the study area or the character of their setting and no effects are predicted. The vacant residential property that will be demolished is not considered to have any heritage value.

### Operation Effects

2.55 This section of the assessment refers where relevant to the ZTV and viewpoint photographs and wireframe visualisations shown in Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA).. The methodology for the production of these images, and any limitations, are explained in that chapter.

### Archaeology

2.56 No significant effects are predicted on the archaeological resource on site during the operation stage.

### Built Heritage

2.57 Kilmactalway church and related features (TOR1-4) are at the edge of the study area, at nearly 1km distance from the site and within a wooded setting. There is no historic connection to the site and the monument is physically and visually separated from it by the intervening woodland associated with Castle Bagot House and the large-scale structures at Grange Castle Business Park South. There would be no change to the monument or its setting as a result of the proposed development. The operation stage would not result in any impact and the effects would be neutral in nature and not significant in terms of EIA.

2.58 Kilbride church and related features (TOR6-8) are within the open agricultural setting of the adjacent farm and Kilbride House. The existing and emerging character of the wider setting is mixed, with the influence of the aerodrome to the south of Baldonnel Road, the adjacent golf course, and the visible new buildings of the business parks to the north. There is no historic connection to the site and the monument is physically and visually separated from it by the intervening development. The ZTV in Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA). predicts some visibility of elements of the proposed development across some of the open land around the monument, and within the graveyard enclosure. The change to the character of the setting of the monument through the addition to the existing visibility of the business park development to the north would result in a negative effect of slight significance. This would be permanent and irreversible and would not be significant.

2.59 Grange Castle (TOR12 and 16) to the north on the edge of the 1km study area is physically and visually separate from the site by the buildings of Grange Castle Business Park north of R134 New Nangor Road. The recently restored tower house is seen within the new landscape setting defined by the main roads of the business park and has no historic or present relationship to the site area. The ZTV in Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA) predicts visibility of some elements of the

## Summary of Residual Effects

Table 2.3 provides a tabulated summary of the outcomes of the cultural heritage assessment of the proposed development. Where **significant positive** effects are likely these are highlighted in bold green and where **significant negative** effects are predicted these are highlighted in bold red.

Receptor	Description of Residual Effect	Additional Mitigation	Scale and Significance of Residual Effect	Nature of Residual Effect*								
				+	L	D	P	R	St	Mt	Lt	
<b>Demolition and Construction</b>												
On site archaeology	None identified	None required	Imperceptible	+/-	U	D	P	IR				Lt
Built heritage	None identified	None required	Imperceptible	+/-	U	D	T	IR				T to St
<b>Operation</b>												
Archaeology	None identified	None required	Imperceptible	+/-	U	D	P	IR				Lt
Built heritage (TOR6-8)	Change to visual qualities of setting	None required	Slight	-	L	D	P	IR				Lt
Built heritage (TOR1-4, 12, 16, 17-24)	None identified	None required	Imperceptible	+/-	U	D	P	IR				Lt

Notes:  
 \* - = Negative/ + = Positive / +/- = Neutral; R = Reversible, IR = Irreversible; D = Direct, ID = Indirect;  
 L= Likely, U = Unlikely; M = Momentary, B = Brief, T= Temporary, St = Short-term, Mt = Medium-term, Lt = Long-term, P = Permanent.  
 \*\* Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant, Profound.

## Cumulative Effects

### Intra-Project Effects

2.72 As explained in Volume 1, Chapter 2: EIA Process and Methodology, intra-project cumulative effects are discussed in Volume 1, Chapter 16: Intra Cumulative Effects.

### Inter-Project Effects

2.73 No significant effects are predicted on the archaeological resource as a result of the proposed development alone in either the demolition and construction or the operation stage. There is therefore no potential for inter-project effects with the cumulative schemes to occur. Archaeology is not considered further in this section of the assessment.

2.74 No significant effects are predicted on built heritage as a result of the proposed development alone in either the demolition and construction or the operation stage. There is therefore no potential for inter-

project effects with the cumulative schemes to occur. Built heritage is not considered further in this section of the assessment.

2.75 Table 2.4 provides a summary of the likely cumulative effects on archaeology resulting from the demolition and construction stage of the proposed development and the cumulative developments.

**Table 2.4: Inter-Project Cumulative Effects**

Cumulative Schemes	Demolition and Construction	
	Cumulative Effects Likely?	Reason
SD20A/0283 Microsoft, Grange Castle Business Park, Nangor Road Clondalkin, Dublin 22 VA06S.308585 SD20A/0121 UBC Properties, townlands within Grange Castle Business Park, Baldonnell, Dublin 22  UBC Properties - Grange Castle South Business Park, Dublin 22 SD17A/0377Digital Reality Trust - Profile Park, Baldonnell, Dublin 22, D22 TY06  SD18A/0134 Cyrus One - Grange Castle Business Park, Clondalkin, Dublin 22 SD20A/0295 (amendment to SD18A/0134)  Cyrus One Townlands within Grange Castle South Business Park, Baldonnell, Dublin 22  VA06S.309146Cyrus One - Grange Castle South Business Park, Baldonnell, Dublin 22	No	No significant effects are predicted on the archaeological resource as a result of the proposed development.
Site proposed electrical connection and substation to EirGrid to the south	Yes	Geophysical survey in this area has identified a probable early medieval sub circular enclosure in the proposed field parcel. Once the required site investigations of the enclosure are complete, the resource will have been appropriately dealt with in line with local/national policy and best practice guidance.

survey has identified the location of a probable early Medieval enclosure that will require further investigation and potentially preservation by record. The overall knowledge gained by the investigation of this site and its addition to other contemporary monuments from this period would result in a positive effect of slight significance.

2.92 No significant effects are predicted on built heritage as a result of the proposed development alone in either the demolition and construction or the operation stage so there is no potential for cumulative effects.

2.93 Overall, it is considered that the operation stage of development in combination with the one cumulative scheme with the most relevant association to the south, the substation and electricity connection to EirGrid, would result in a positive cumulative effect on cultural heritage of slight significance and would not give rise to a significant effect.






## ABBREVIATIONS

<b>EIA</b>	Environmental Impact Assessment
<b>LVIA</b>	Landscape and Visual Impact Assessment
<b>EPA</b>	Environmental Protection Agency
<b>GLVIA</b>	Guidelines for Landscape and Visual Assessment
<b>EIAR</b>	Environmental Impact Assessment Report
<b>MW</b>	Megawatt
<b>NLS</b>	National Landscape Strategy
<b>NPF</b>	National Planning Framework
<b>NDP</b>	National Development Plan
<b>NDO</b>	National Policy Objectives
<b>SUDS</b>	Sustainable Drainage Systems
<b>LACCA</b>	Landscape Classification Character Assessment
<b>HLCA</b>	Historic Landscape Character Assessment
<b>GI</b>	Green Infrastructure
<b>HCL</b>	Heritage Conservation and Landscape Objective
<b>BMP</b>	Biodiversity Management Plan
<b>LCA</b>	Landscape Character Area
<b>SDCC</b>	South Dublin County Council
<b>NHA</b>	National Heritage Area
<b>NIAH</b>	National Inventory of Architectural Heritage
<b>ZTV</b>	Zone of Theoretical Visibility
<b>VP</b>	Viewpoint
<b>SMR</b>	Sites and Monuments Record
<b>RM</b>	Register of Historic Monuments
<b>RMP</b>	Record of Monuments and Places
<b>RPS</b>	Record of Protected Structures
<b>ACSU</b>	Archaeological Consultancy Services Unit Ltd
<b>NMS</b>	National Monuments Service



# Technical Appendix 1.1: Figures

# Viewpoint location and Landscape and Character Area

-  Viewpoint
-  site boundary
-  Newcastle Lowlands
-  Urban South Dublin
-  Grand Canal pNHA



Notes:  
 Photomontages are provided in Appendix 3 from viewpoints 1, 2, 3, 5, 6, 7, 9, 10

Development Proposal  
 Landscape and Visual Impact Assessment  
 Client: Vantage

Figure 2

Scale at A3: 1:12,814  
 For planning  
 Issue 01 | 20/08/2021 | EH

# Technical Appendix 1.2: Viewpoint Photographs



Photograph 2: Location 2 | Filename: DSC8340 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 134°  
Camera: Sony-ICLE-1 | Lens: Sigma-ART-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Date taken: 20210628\_10:18 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/200sec

Note: this image is NOT 50mm. Parking was prohibited by the property owner at the location and a quick image was taken with a mobile phone.



Photograph 4: Location: 04 | taken with Phone - no details



Photograph 6: Location: 6 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 140°

Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628\_10:18 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/250sec



Photograph 8: Location: 8 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 229°  
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628\_12:56 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/80sec



Photograph 10: Location: 10 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 330°  
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628\_14:19 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/125sec



# Technical Appendix 1.3: Viewpoint Photomontages



EXTENT OF BUILDING

Note: Permitted UBC Properties application (SD20A/0121) is shown ghosted

Photograph 2: Location 2 | Filename: DSC8340 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 134°  
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628\_10:18 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/200sec



Photograph 5: Location: 5 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 335°  
Camera: Sony-ICLE-1 | Lens: Sigma-ART-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Date taken: 20210818\_15:02 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/250sec

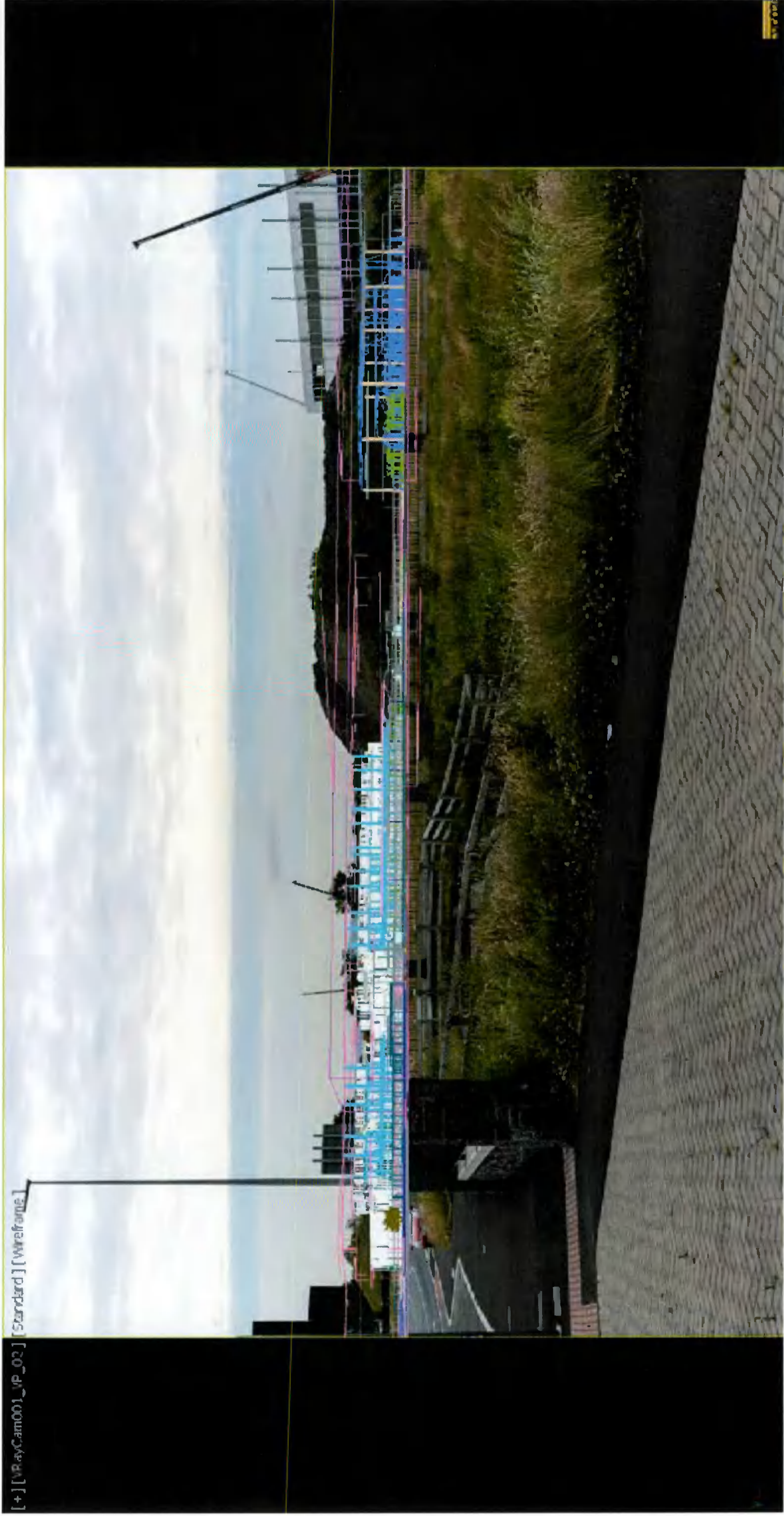


Photograph 7a: Location: 7 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 260°  
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Date taken: 20210628\_12:42 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/60sec



Photograph 9: Location:9 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 305°  
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_50mm F1.4 DG HSM | Art 018 | Date taken: 20210818\_14:32 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/250sec

# Technical Appendix 1.4: Wireframes



[+] [VR\_ayCam001\_vp\_02] [Standard] [Wireframe]

Photograph 2: Location 2 | Filename: DSC8340 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 134°  
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018\_Focal-length\_<No data from link> | Camera height: 1.7m AGL | Date taken: 20210628\_10:18 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/200sec