

10.0 CULTURAL HERITAGE

10.1 Introduction

Golder Associates Ireland Ltd (Golder) has been commissioned to prepare this Environmental Impact Assessment Report (EIAR) on behalf of Atlas GP Ltd, as Developer and Applicant of the proposed Carmanhall Road Strategic Housing Development (SHD; hereafter the 'Proposed Development'), on lands located at the former Avid Technology International site on Carmanhall Road, Sandyford Industrial Estate, Dublin 18 ('the Site'). It represents the findings of an Environmental Impact Assessment (EIA) carried out for the Proposed Development and supports the overall planning application for the Proposed Development. This chapter of the EIAR considers the potential effects of the Proposed Development on cultural heritage.

The choice of team members for each study has been informed by the experience of the relevant lead specialist in their area of technical interest. The cultural heritage assessment has been prepared by Conor Ryan (BA Jt. Hons.). Conor is an Associate of the Chartered Institute for Archaeologists (ACIfA) and has more than 6 years' experience in cultural heritage assessment. The Archaeology Impact Assessment (presented in Appendix 10.2) has been prepared by Franc Myles of Archaeology and Built Heritage Ltd. Franc has a Master's in Urban and Building Conservation and is a Member of the Institute of Archaeologists of Ireland, and has more than 25 years' experience.

A detailed description of the Site and the Proposed Development can be found in Chapter 3.0 of this EIAR (Project Description).

10.1.1 Scope

The scope of this cultural heritage assessment comprises a fully detailed baseline study, effects analysis and impact assessment for the Proposed Development. The baseline is informed by the results of desk-based and archival research, as well as the results of a separate archaeological impact assessment prepared by Franc Myles of Archaeology and Built Heritage Ltd (2021; presented in Appendix 10.2).

The impact assessment considers both direct and indirect impacts from the construction and operation of the Proposed Development upon cultural heritage assets, and also considers cumulative and combined effects. Decommissioning has been scoped out of the assessment due to the nature of the Proposed Development (i.e. it is not expected that the apartments will be removed). Informed by the results of the impact assessment, an appropriate and proportionate mitigation strategy for the Proposed Development has been developed, with residual effects subsequently assessed.

In lieu of specific guidance from the Institute of Archaeologists of Ireland (IAI), this impact assessment conforms to the guidelines set out by the Chartered Institute for Archaeologists (CIfA, 2020a¹; 2020b²).

For the purposes of this EIAR, the term 'cultural heritage' is used as a collective term to refer to all assets of archaeological, architectural and historical or cultural value. Archaeological heritage typically refers to objects, monuments, buildings, environmental remains or cultural landscapes older than AD 1700, although it can also be used to describe objects, monuments and other tangible remains that date from post-AD 1700³. Architectural heritage (or built heritage) refers to structures or buildings (including their contents) of cultural value that are younger than AD 1700. Designed landscapes and gardens dating to post-AD 1700 are also considered to be architectural in this assessment. In both cases, the setting of an asset is considered an integral part of its value.

¹ CIfA (2020a). Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment.

² CIfA (2020b). Standard and guidance for historic environment desk-based assessment.

³ AD 1700 is a point in time used by the National Monuments Service and the National Inventory of Architectural Heritage to distinguish between 'archaeology' and 'architecture'. Although archaeological remains exist that are younger than AD 1700, any buildings, structures or designed landscapes/gardens built during this period are considered in this assessment to be 'architectural'.

10.1.2 Site Location and Description

The Proposed Development is located within the Sandyford Industrial Estate, Dublin 18. The Site measures approximately 1.03 ha and is located on the south-western corner of the intersection of Carmanhall Road and Blackthorn Road, approximately 8.8 km south of Dublin City Centre (as shown in Figure 10.1). The Proposed Development will be located on a brownfield site that was previously occupied by a double storey office building and associated carpark (recently demolished). The Site is bounded to the north by Carmanhall Road and to the east by Blackthorn Road, whilst south of the Site is a four-storey office building and west is a double storey office building. Vehicular access is provided in the north-western corner of the Site via a crossover to Carmanhall Road. The Site slopes from south to north towards Carmanhall Road.



Figure 10.1: Proposed Development boundary

10.1.3 Study Area

In order to capture sufficient baseline data to robustly assess direct impacts to cultural heritage assets, the spatial scope of the assessment comprises all the land that may be required for the Proposed Development (i.e. land situated within the 'red line boundary' shown on Figure 10.1), together with a buffer of 1 km around the Proposed Development to allow the assessment of indirect impacts. The extent of the wider study also factors in the Zone of Theoretical Visibility (ZTV) that was calculated by the Landscape and Visual specialist – as a result, some cultural heritage assets have been considered that are located more than 1 km from the Proposed Development. The Study Area is shown in Figure 10.2, and the ZTV is provided in Chapter 13.0 (Figure 13.7).

10.1.4 Chapter Structure

This chapter is divided into the following sections:

- 10.1 – Introduction, which includes details of the assessment scope, study area and structure;

- 10.2 – Policy and Legislation Context, which includes a description of legislation, policy, standards and guidance relevant to cultural heritage;
- 10.3 – Assessment Methodology and Significance Criteria, which presents a description of how the assessment has been undertaken, the consultations that have taken place and includes any assumptions that have been made or limitations that have been encountered;
- 10.4 – Baseline Conditions, which presents the sources of information used, a detailed breakdown of the assets recorded, a summarised historic map regression and a summarised appraisal of previous archaeological investigations in the study area;
- 10.5 – Characteristics of the Proposed Development, which briefly describes the Proposed Development and those characteristics pertinent to cultural heritage;
- 10.6 – Potential Effects, which summarises the cultural heritage assets considered in the assessment and identifies the sensitivity of those assets. It also presents the potential effects upon these assets as a result of the Proposed Development during construction and operation;
- 10.7 – Mitigation and Monitoring, which presents details of mitigation and monitoring that needs to be adopted to manage the potential effects identified in Section 10.6. It also presents any recommendations for further archaeological investigation that may be required;
- 10.8 – Residual Effects, which presents the residual effects of the Proposed Development, taking account of proposed mitigation;
- 10.9 – Difficulties Encountered, which presents any limitations to the assessment; and
- 10.10 – Summary and Conclusions, which presents a summary of the assessment and final conclusions.

10.2 Legislative and Policy Context

The Minister for Housing, Local Government and Heritage (representing the Department of Housing, Local Government and Heritage) is responsible for the conservation, preservation, protection and presentation of Ireland's cultural heritage. The protection of archaeological heritage is the responsibility of the National Monuments Service (NMS), whilst architectural heritage is the responsibility of the Built Heritage Policy Section (including the Architectural Heritage Advisory Service (AHAS) and National Inventory of Architectural Heritage (NIAH)).

At the national and international level, the key legislation pertinent to this assessment includes:

- The National Monuments Acts, 1930 to 2004;
- The Heritage Act, 1995;
- The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999;
- The Planning and Development Acts, 2000 to 2020;
- The Convention concerning the Protection of the World Cultural and Natural Heritage (1972), ratified by the Irish Government in 1991; and
- The European Convention on the Protection of the Archaeological Heritage (Revised) (1992), ratified by the Irish Government in 1997.

Guidelines on the assessment of impacts on, and the protection of, cultural heritage assets in Ireland have been consulted and adhered to for this impact assessment, including:

- Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (2017) – EPA;
- The Framework and Principles for the Protection of the Archaeological Heritage (1999) - Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI); and
- Architectural Heritage Protection: Guidelines for Planning Authorities (2011) - Department of Arts, Heritage and the Gaeltacht (DAHG).

10.2.1 Legislative Mechanisms of Protection

There are a number of mechanisms for heritage protection in Ireland. Heritage assets can be protected under the National Monuments Acts 1930 to 2004 in four ways:

- The asset is recorded in the Record of Monuments and Places (RMP);
- The asset is registered in the Register of Historic Monuments (RHM);
- The asset is a national monument subject to a Preservation Order (or Temporary Preservation Order); or
- The asset is a National Monument in State Care.

Heritage assets can also be protected under the Planning and Development Act 2000, which requires all Local Authorities to curate and maintain a Record of Protected Structures (RPS). An asset is protected if it is inscribed on a county's RPS. Protected Structures may be archaeological in nature, and so an asset may appear on both the RMP and county RPS.

The 'Convention concerning the Protection of the World Cultural and Natural Heritage' (1972) provides The United Nations Educational, Scientific and Cultural Organization (UNESCO) with the power to inscribe assets of international importance on the World Heritage List as a World Heritage Site. Local authorities and stakeholders are encouraged to protect these sites through the production of Management Plans, which aim to manage the site in a suitable fashion.

Local authorities also have mechanisms by which to protect heritage assets, including the creation of Architectural Conservation Areas (ACAs) and Zones of Archaeological Potential (ZAPs) (or equivalents).

The mechanisms of heritage protection described here also afford protection to the setting of cultural heritage assets, as well as the physical assets.

10.2.2 Planning Policy

At the local level, Section 6.1 of the Dún Laoghaire-Rathdown County Development Plan 2016 - 2022 (DLRCDP) guides planning policy in relation to archaeological and architectural heritage. Policies pertinent to this assessment are summarised in Table 10.1.

Table 10.1: DLRCDP Policies - Archaeological and Architectural Heritage

Policy Area	Policy
Archaeological Heritage	AH1: Protection of Archaeological Heritage <i>It is Council policy to protect archaeological sites, National Monuments (and their settings), which have been identified in the Record of Monuments and Places (RMP) and, where feasible, appropriate and applicable to promote access to and signposting of such sites and monuments.</i>

Policy Area	Policy
	<p>AH2: Protection of Archaeological Material in Situ <i>It is Council policy to seek the preservation in situ (or where this is not possible or appropriate, as a minimum, preservation by record) of all archaeological monuments included in the Record of Monuments and Places, and of previously unknown sites, features and objects of archaeological interest that become revealed through development activity. In respect of decision making on development proposals affecting sites listed in the Record of Monuments and Places, the Council will have regard to the advice and/or recommendations of the Department of Arts, Heritage and the Gaeltacht (DoAHG).</i></p> <p>AH5: Historical Building Grounds <i>It is Council policy to protect historical and/or closed burial grounds within the County and encourage their maintenance in accordance with good conservation practice and to promote access to such sites where possible.</i></p>
Architectural Heritage	<p>AR1: Record of Protected Structures <i>It is Council policy to:</i></p> <ul style="list-style-type: none"> i) <i>Include those structures that are considered in the opinion of the Planning Authority to be of special architectural, historical, archaeological, artistic, cultural, scientific, technical or social interest in the Record of Protected Structures (RPS).</i> ii) <i>Protect structures included on the RPS from any works that would negatively impact their special character and appearance.</i> iii) <i>Ensure that any development proposals to Protected Structures, their curtilage and setting shall have regard to the Department of the Arts, Heritage and the Gaeltacht 'Architectural Heritage Protection Guidelines for Planning Authorities' (2011).</i> iv) <i>Ensure that new and adapted uses are compatible with the character and special interest of the Protected Structure.</i> <p>AR4: National Inventory of Architectural Heritage (NIAH) <i>It is Council policy to require all planning applications relating to Protected Structures to contain the appropriate level of documentation in accordance with Article 23 (2) Planning Regulations and Chapter 6 and Appendix B of the Architectural Heritage Protection Guidelines for Planning Authorities, or any variation thereof.</i></p> <p>AR5: Buildings of Heritage Interest <i>It is Council policy to:</i></p> <ul style="list-style-type: none"> i) <i>Retain, where appropriate, and encourage the rehabilitation and suitable reuse of existing older buildings/structures/features which make a positive contribution to the character and appearance of a streetscape in preference to their demolition and redevelopment and to preserve surviving shop and pub fronts of special historical or architectural interest including signage and associated features.</i> v) <i>Identify buildings of vernacular significance with a view to assessing them for inclusion in the Record of Protected Structures.</i> <p>AR6: Protection of Buildings on Council Ownership</p>

Policy Area	Policy
	<p><i>It is Council policy to continue to demonstrate best practice with regard to Protected Structures, Recorded Monuments and often elements of architectural heritage in its ownership and care.</i></p>
	<p>AR8: Nineteenth and Twentieth Century Buildings, Estates and Features <i>It is Council policy to:</i></p> <ul style="list-style-type: none"> <i>i) Encourage the appropriate development of exemplar nineteenth and twentieth century buildings and estates to ensure their character is not compromised.</i> <i>ii) Encourage the retention of features that contribute to the character of exemplar nineteenth and twentieth century buildings and estates such as roofscapes, boundary treatments and other features considered worthy of retention.</i>
	<p>AR9: Protection of Historic Street Furniture <i>It is Council policy to:</i></p> <ul style="list-style-type: none"> <i>i) Preserve the retention of historic items of street furniture where these contribute to the character of the area including items of a vernacular or local significance.</i> <i>ii) Promote high standards for design, materials and workmanship in public realm improvements within areas of historic character.</i>
	<p>AR11: Industrial Heritage <i>It is Council policy to:</i></p> <ul style="list-style-type: none"> <i>i) Have regard to those items identified in the Industrial Heritage Survey listed in Appendix 5 when assessing any development proposals.</i> <i>ii) Identify further sites of industrial heritage significance with a view to assessing them for inclusion in the Record of Protected Structures.</i>
	<p>AR12: Architectural Conservation Areas <i>It is Council policy to:</i></p> <ul style="list-style-type: none"> <i>i) Protect the character and special interest of an area which has been designated as an Architectural Conservation Area (ACA).</i> <i>ii) Ensure that all development proposals within an ACA be appropriate to the character of the area having regard to the Character Appraisals for each area.</i> <i>iii) Seek a high quality, sensitive design for any new development(s) that are complimentary and/or sympathetic to their context and scale, whilst simultaneously encouraging contemporary design.</i> <i>iv) Ensure street furniture is kept to a minimum, is of good design and any redundant street furniture removed.</i> <i>v) Seek the retention of all features that contribute to the character of an ACA including boundary walls, railings, soft landscaping, traditional paving and street furniture.</i>

Dún Laoghaire-Rathdown County Council has a heritage management plan (Dún Laoghaire-Rathdown Heritage Plan 2013-2019), which has been consulted for reference, where applicable.

10.3 Assessment Methodology and Significance Criteria

This assessment has been produced in accordance with national and local legislation and policy, as well as best practice guidance. The impact assessment methodology aligns with EPA's Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports, (EPA, 2017) and has been adapted from the advice provided by the National Roads Authority (NRA), in their Guidelines for the Assessment of Architectural Heritage Impacts of National Roads Schemes and Guidelines for the Assessment of Archaeological Heritage Impacts of National Roads Schemes (no publication date). These guidelines can be equally applied to other development schemes.

The assessment has been completed using a phased qualitative assessment methodology, as outlined here:

- Cultural heritage assets with the potential to be affected by the Proposed Development are identified and ascribed a 'value', ranging from "unknown" to 'very high';
- The 'magnitude' of any effects resulting from the Proposed Development upon the identified receptors are established, ranging from 'no change' to 'high' (assuming no mitigation is in place);
- A comparison of the magnitude of effect and receptor value is used to calculate the significance of effect;
- Where required, a mitigation strategy is proposed, with the significance of effect re-calculated (assuming any proposed mitigation is in place) to ascertain the residual effects.

Effects to cultural heritage assets can result from both direct and indirect effects. Direct effects are considered here to be those which result in an immediate, physical impact to an asset, such as ground disturbance. Indirect effects are considered here to include those that occur through an environmental pathway (e.g. air, waterways, and groundwater) or that are secondary (e.g. mitigation measures for a different impact affecting cultural heritage). These indirect effects may be physical but may also affect the setting of an asset. Indirect effects can include, but are not limited to:

- Noise effects;
- Air pollution/dust effects; and
- Visual effects.

Consultation with other specialists, in particular air quality, noise, and landscape and visual, have been undertaken to capture combined effects and provide a holistic assessment of impacts upon cultural heritage assets.

10.3.1 Assessment of Value of Cultural Heritage Assets

The value of a cultural heritage asset can be assessed using the criteria presented in Table 10.2.

Table 10.2: Criteria for Assessing the Value of Cultural Heritage Assets

Value of Asset	Criteria
Very High	<ul style="list-style-type: none"> ■ World Heritage Sites (including nominated sites); ■ Assets of acknowledged international importance; and ■ Assets that can contribute significantly to acknowledged international research objectives.
High	<ul style="list-style-type: none"> ■ Protected Assets (e.g. assets inscribed on the RMP, RHP or RPS);

Value of Asset	Criteria
	<ul style="list-style-type: none"> ■ Undesignated assets of recognised quality or importance (e.g. proposed for inclusion on the RMP, ACAs); and ■ Assets that can contribute significantly to acknowledged national research objectives.
Medium	<ul style="list-style-type: none"> ■ Undesignated assets of regional importance or that might contribute to regional research objectives.
Low	<ul style="list-style-type: none"> ■ Undesignated assets of local importance; ■ Assets compromised by poor preservation and/or poor survival of contextual associations; and ■ Assets of limited value, but with potential to contribute to local research objectives.
Negligible	<ul style="list-style-type: none"> ■ Assets with very little or no surviving cultural interest.
Unknown	<ul style="list-style-type: none"> ■ The importance of the asset cannot be ascertained.

10.3.2 Assessment of Magnitude of Effect

The scale and magnitude of effects on cultural heritage assets can be assessed using the tiered grading system presented in Table 10.3.

Table 10.3: Criteria for Assessing Magnitude of Effect on Cultural Heritage Assets

Magnitude of Effect	Criteria
High	<ul style="list-style-type: none"> ■ Changes to most or all key archaeological/architectural elements, such that the asset is totally altered; and ■ Comprehensive changes to setting.
Medium	<ul style="list-style-type: none"> ■ Changes to many key archaeological/architectural elements, such that the asset is clearly modified; and ■ Considerable changes to setting.
Low	<ul style="list-style-type: none"> ■ Changes to key archaeological/architectural elements, such that the asset is slightly altered; and ■ Slight changes to setting.
Negligible	<ul style="list-style-type: none"> ■ Very minor changes to elements or setting; and ■ Archaeological receptors are altered but no information is lost (through archaeological excavation and recording).
No change	<ul style="list-style-type: none"> ■ No change.

10.3.3 Assessment of Significance of Effects

Using the value of an asset as indicated in Table 10.2, and the magnitude of effect as ascertained from Table 10.3, Table 10.4 indicates how the assessment of the significance of an effect has been concluded.

Table 10.4: Significance of Effect Matrix

		MAGNITUDE OF EFFECT				
		No change	Negligible	Low	Medium	High
VALUE OF ASSET	Very High	Imperceptible	Slight	Moderate/ Significant	Significant/ Profound	Profound
	High	Imperceptible	Slight	Slight/ Moderate	Moderate/ Significant	Significant/ Profound
	Medium	Imperceptible	Not Significant	Slight	Moderate	Moderate/ Significant
	Low	Imperceptible	Not Significant	Not Significant	Slight	Slight/ Moderate
	Negligible	Imperceptible	Imperceptible	Not Significant	Not Significant	Slight

The methodology outlined in this section is reliant on an element of subjectivity, and so inherently requires a level of professional judgement. It is considered, however, that the criteria described in Table 10.2 and Table 10.3 provide robust and transparent decision-making guidance that can be widely applied to a variety of potential cultural heritage assets.

10.4 Baseline Conditions

The results of the baseline study are presented here as a summarised appraisal of the various disparate data sources. They have been separated into archaeological and architectural assets. For ease of reference, each asset has been assigned a unique ID reference comprising a two-letter prefix ('AR' for archaeological assets and 'BU' for architectural assets), followed by a sequentially increasing number. This allows information from different datasets, each with their own reference systems, to be collated into a single receptor list.

10.4.1 Data Sources

The baseline study comprised a comprehensive desk-based review of existing, remotely available heritage datasets within the Study Area, which has allowed a good understanding of the baseline cultural heritage conditions at and around the Proposed Development to be established. Sources of information consulted include:

- The Sites and Monuments Record (SMR), compiled and maintained by the Archaeological Survey of Ireland (ASI) unit of the NMS, for details regarding all known monuments and sites⁴;
- The NIAH Building⁴ and Garden⁵ Surveys, for details regarding buildings, structures, demesnes, designed landscapes and historic gardens of architectural importance;
- The RMP, compiled and maintained by the NMS, for details regarding protected sites;
- The NMS for details regarding national monuments in State care (ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht) and for monuments subject to Preservation Orders;
- The DLRCDP 2016-2022 for details regarding the county's RHM, RPS, National Monuments in State Care (ownership or guardianship of the Local Authority), monuments subject to Preservation Orders and ACAs;

⁴ The SMR and NIAH Building Survey datasets are available in a downloadable Geographical Information System (GIS) format.

⁵ The NIAH Garden survey is a work in progress. The desk-based survey (Phases 1 and 2) has been completed, but the field survey (Phase 3) remains incomplete. A policy framework and method of protection remains to be determined.

- UNESCO for details regarding inscribed and tentative World Heritage Sites;
- The topographical files of the National Museum of Ireland (NMI) for details of any finds held in the national archive relevant to the Site;
- The SMR, Excavations Bulletin, and Transport Infrastructure Ireland Digital Heritage Collection for details of previous excavations;
- Ordnance Survey Ireland for historic cartographic and aerial image sources, in order to conduct a map regression; and
- Modern online aerial image sources (e.g. Google Earth, Bing Maps).

An archaeological impact assessment report has been prepared by Franc Myles of Archaeology and Built Heritage Ltd (2021), the results and conclusion of which have been considered within this assessment.

10.4.2 Archaeological Heritage

Sites and Monuments Record and the Record of Monuments and Places

A total of five archaeological assets from the SMR are recorded within the Study Area, although none of these are located within the Site. The locations of these five assets relative to the Site are presented in Figure 10.2. A summary of these assets is provided in Table 10.5, with greater detail included in the Cultural Heritage Gazetteer in Appendix 10.1. A variety of asset types⁶ are recorded, indicating long-term habitation and use of the area since at least the Bronze Age (2500 BCE to 500 BCE).

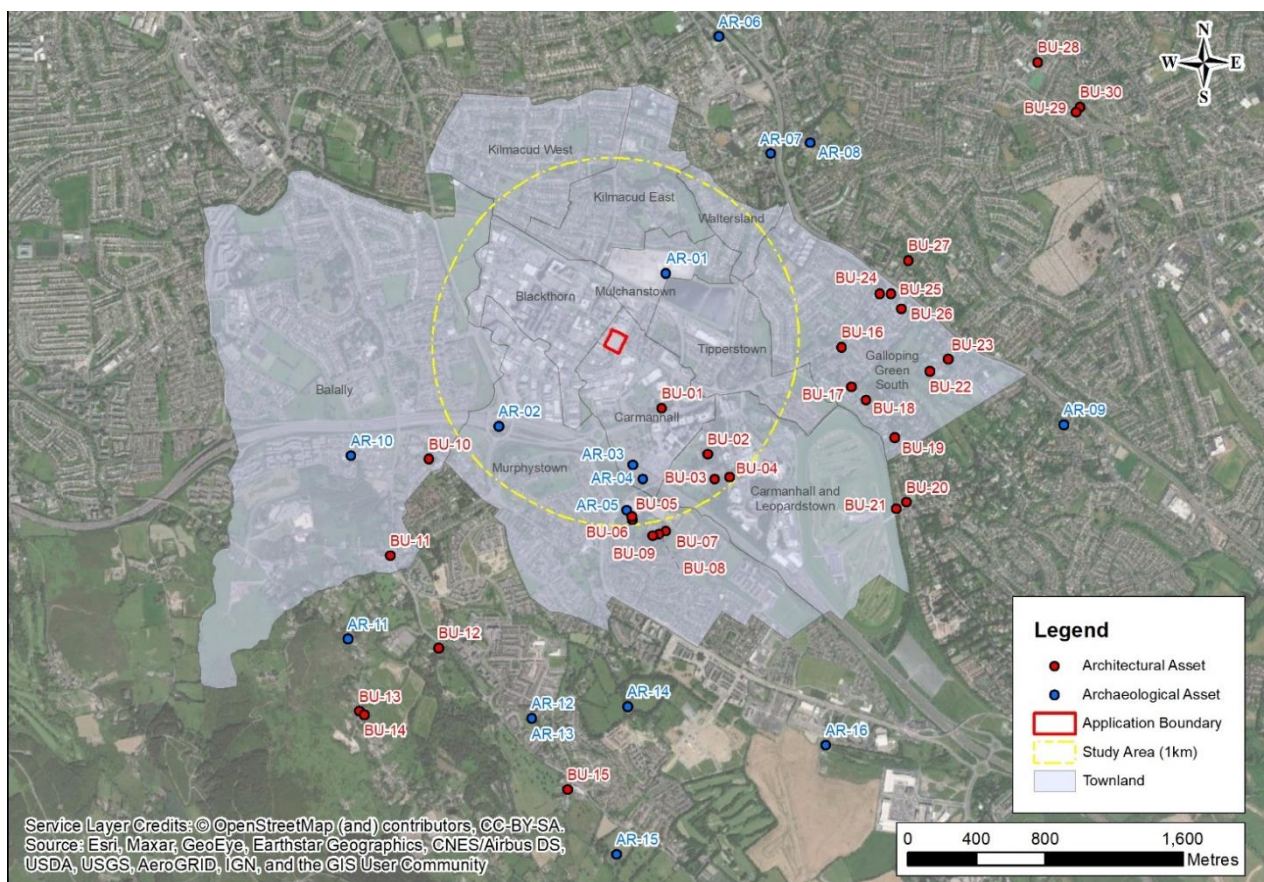


Figure 10.2: Study Area and Cultural Heritage Assets

⁶ A complete list of class definitions used in the SMR is available here: <http://webgis.archaeology.ie/NationalMonuments/WebServiceQuery/Lookup.aspx>

(Sites and Monuments Record data created and maintained by the National Monument Service. National Inventory of Architectural Heritage Building and Garden Survey data created and maintained by the National Inventory of Architectural Heritage).

The nearest recorded asset to the Site is AR-01, an unclassified castle site located approximately 450 m to the northeast. Any remains of the castle were likely lost during construction of the Stillorgan reservoirs, but its location is indicated as 'Moltainstown' on the Down Survey (1655-56). As such, this site is not listed, or proposed for inclusion, on the RMP.

Located 770 m to the southwest of the Site, AR-02 is recorded as a *fulacht fia* (a kidney-shaped cooking pit, typically interpreted as being Bronze Age in date). The SMR entry does not include any additional information, but the asset is located within the alignment of the M50 motorway, indicating that it was likely identified during road construction.

Similarly, AR-03 and AR-04 are also located within the M50 alignment. Both of these assets have undergone archaeological evaluation through excavation under licence. Located approximately 660 m south of the Site, AR-03 is a potentially medieval field boundary (comprising a wall and ditch) with later fire pits and postholes. In close proximity, located 760 m south of the Site, AR-04 is recorded as a flat cemetery. This Bronze Age cemetery, dated to between 2000 and 1850 BCE, comprised three cremation burials, two of which contained vessels. The three burials were recorded within 7 m of each other.

Comprising the partial remains of a tower house, AR-05 is located 920 m south of the Site, within the landscaped gardens of Glencairn. The two sections of wall, built from granite masonry, are described as being within the entrance gate to the British Embassy at Glencairn (which is an architectural asset in its own right – BU-05). The SMR record indicates, however, that the tower house is associated with the western boundary of the demesne lands of Kill of the Grange (a church site located northeast of the Site), indicating a medieval date. The SMR record also indicates AR-05 as being located approximately 35 m east of BU-05.

There are no assets recorded in the Dún Laoghaire-Rathdown Industrial Heritage Survey located at the Site.

Table 10.5: Archaeological Assets within Study Area

Golder ID	SMR Ref	Easting (ITM95)	Northing (ITM95)	Asset Description	Included (or for Inclusion) on RMP	Distance to Site	Value
AR-01	DU023-045----	719718	726951	Castle – unclassified	No	450 m (northeast)	Negligible
AR-02	DU022-109----	718744	726061	Fulacht fia	Yes	770 m (southwest)	High
AR-03	DU023-066----	719525	725836	Field boundary	Yes	660 m (south)	High
AR-04	DU023-063----	719583	725752	Flat cemetery	Yes	760 m (south)	High
AR-05	DU023-025----	719489	725570	Castle – tower house	Yes	920 m (south)	High

A further 11 archaeological assets are located within the wider ZTV, three to the north (AR-06 to AR-08), one to the east (AR-09) and seven to the south and south west (AR-10 to AR-16). Details of these assets are provided in the Cultural Heritage Gazetteer in Appendix 10.1.

Record of Protected Structures

None of the archaeological assets recorded within the Study Area are listed on the Dún Laoghaire-Rathdown RPS.

Preservation Orders

None of the assets within the Study Area are subject to a Preservation Order. The nearest asset to the Site subject to a Preservation Order is the Kiltiernan Dolmen and associated stones (DU026-019----), located in Kiltiernan Domain, approximately 4.1 km south of the Site.

National Monuments in State Care

A national monument is defined by the National Monuments Act, 1930 as an asset '*the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto*'. A National Monument in State Care is one in the ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht or a Local Authority.

None of the monuments recorded in the Study Area are designated as National Monuments in State Care. The nearest National Monument in State care is a cross in Kilgobbin (SMR number DU025-016----), located 2.2 km south of the Site.

Register of Historic Monuments

None of the monuments recorded within the Study Area are inscribed on the RHM. The nearest monument that is inscribed on the RHM is a semi-circular enclosure (SMR number DU025-014----), located in Woodside, approximately 2.2 km southwest of the Site.

World Heritage Sites and Tentative List

There are no World Heritage Sites recorded within the Study Area. The nearest World Heritage Site to the Site is Brú na Bóinne (Archaeological Ensemble of the Bend of the Boyne), located 49 km to the north. The Royal Sites of Ireland, comprising five individual sites in Ireland (Cashel, Dún Ailinne, the Hill of Uisneach, the Rathcroghan Complex and the Tara Complex) as well as Navan Fort in Northern Ireland (UK), is listed on the Tentative List for Ireland for consideration for inclusion on the World Heritage List. The Tara Complex, the seat of the kings of Meath and the high kings of Ireland, is located approximately 42 km northwest of the Site, whilst Dún Ailinne, the seat of the kings of Leinster, is located approximately 42 km southwest of the Site.

Topographical Files

A remote search was conducted of the topographical files archive at the NMI for all entries recorded in the 11 townlands that are within 1 km of the Site (as shown on Figure 10.2). The search returned four entries, two in Leopardstown, one in Murphystown and one in Galloping Green South. The two finds in Leopardstown comprise a silver shilling, dating to the Victorian era, and an early 20th century metal button from the Irish Volunteers, whilst a stone axehead was recorded beneath a granite boulder in Murphystown. An incised sandstone cobble, of potential Bronze Age origin, was found in Galloping Green South, although the record indicates that there is scepticism over the authenticity of the artefact.

From available online sources, including the National Museum of Ireland: Finds Database (2010), a bronze flat axe is recorded to have been found approximately 565 m south of the Site, within the alignment of the M50 motorway.

10.4.3 Architectural Heritage

National Inventory of Architectural Heritage

A total of nine architectural assets listed on the NIAH Building Survey are recorded within the Study Area. The locations of these are shown in Figure 10.2, with details summarised in Table 10.6. Greater detail is provided in the Cultural Heritage Gazetteer in Appendix 10.1.

All nine assets are located south of the Site, with the nearest, BU-01, located 350 m to the southeast. Of the nine assets, five are associated with the Glencairn estate and three are associated with Leopardstown Park. Eight of the assets are listed on the Dún Laoghaire-Rathdown RPS, BU-03 being the only one excluded.

Table 10.6: Architectural Assets within Study Area

Golder ID	NIAH Ref	Easting (ITM95)	Northing (ITM95)	Asset Description (Asset Date)	Asset listed on RPS?	Distance to Site	Value
BU-01	60230013	719627	726190	Burton Hall (1725 - 1735)	Yes (RPS ref. 1610)	350 m (southeast)	High
BU-02	60230012	719895	725924	Leopardstown Park – stable block (1877 - 1908)	Yes (RPS ref. 1630)	730 m (southeast)	High
BU-03	60230011	719935	725777	Leopardstown Park – hospital (1917 - 1937)	No	870 m (southeast)	Medium
BU-04	60230010	720021	725791	Leopardstown Park – country house (1795 - 1800)	Yes (RPS ref. 1634)	915 m (southeast)	High
BU-05	60230005	719452	725561	Glencairn – entrance gate (1900 - 1910)	Yes (RPS ref. 1643)	930 m (south)	High
BU-06	60230004	719455	725540	Glencairn – gate lodge (1855 - 1865)	Yes (RPS ref. 1643)	950 m (south)	High
BU-07	60230001	719651	725477	Glencairn – country house (1855 - 1865)	Yes (RPS ref. 1643)	1,035 m (south)	High
BU-08	60230002	719612	725457	Glencairn – conservatory (1855 - 1908)	Yes (RPS ref. 1643)	1,050 m (south)	High
BU-09	60230003	719573	725449	Glencairn – walled garden (1855 - 1908)	Yes (RPS ref. 1643)	1,050 m (south)	High

A further 21 architectural assets are located within the wider ZTV, forming two distinct clusters. To the south and southwest there are 6 architectural assets (BU-10 to BU-15), whilst to the east and northeast there are 15 (BU-16 to BU-30). Details of these assets are provided in the Cultural Heritage Gazetteer in Appendix 10.1.

Architectural Preservation Areas

The Proposed Development is not located within an ACA. The nearest ACA to the Proposed Development is the Arkle Square ACA, located approximately 600 m to the southeast.

10.4.4 Previous Studies and Archaeological Investigations

An archaeological impact assessment has been prepared for the Site (Franc Myles; Archaeology and Built Heritage, 2021; Appendix 10.2). It concludes that the potential for significant archaeological remains to exist at the Site is low, with an historic field boundary the only known feature potentially present, identified through historic map regression. Previous ground disturbance at the Site is concluded to have likely disturbed shallow archaeological deposits associated with the Site's agricultural history but is not considered to have impacted deeper substrates.

Twelve records of previous excavations are indicated within the Study Area, seven of which revealed no features of archaeological significance, although the foundations of an undated drystone wall are noted at Carmanhall Site 1 in Appendix 10.2 as an example of unidentified features and structures existing below the surface. The other five excavations were all undertaken upon known assets AR-02, AR-03, AR-04 and AR-05. These excavations were generally development led, in response to construction of the M50 motorway, Luas B1 development or within the Sandyford Industrial Estate.

10.4.5 Historic Map Regression and Aerial Imagery

Historic mapping and aerial imagery for the Site is available from Ordnance Survey Ireland, including:

- 6 Inch Colour and Black & White – 1829-1841;
- 25 Inch Black & White – 1897-1913;
- 6 Inch Black & White – 1943;
- Aerial photography (black and white - orthorectified) – 1995;
- Aerial photography (colour - orthorectified) – 2000; and
- Aerial photography (colour - orthorectified) – 2005.

The map regression completed as part of the archaeological impact assessment (Franc Myles; Archaeology and Built Heritage, 2021; Appendix 10.2) has also been consulted.

The 6" map, dating from the early- to mid-19th century, depicts the Site as largely undeveloped agricultural land within a wider rural landscape that is largely unrecognisable on modern aerial imagery. A field boundary, as noted in Appendix 10.2, is shown as running east-west across the centre of the Site. Burton Hall (BU-01) is clearly depicted to the southeast of the Site.

The 25" map, dating from the turn of the 20th century, shows limited change at the Site throughout this period. An agricultural landscape is also shown to prevail in the surrounding area, although there is also evidence of urban expansion in the wider area, including the establishment of the railway and Stillorgan Reservoirs to the north. The 1943 Ordnance Survey map depicts a similar landscape, indicating little change up until the mid-20th century.

Aerial photography from 1995 is the next available imagery, which documents widespread urbanisation across the Site and surrounding area, with the preceding agricultural landscape entirely disappeared. The Site is shown at this time as being occupied by a building and hardstanding, with the surrounding industrial estate immediately recognisable as it currently exists. This continues in later imagery, into the 21st century.

10.4.6 Field Visit Results and Observations

Due to travel restrictions associated with the COVID-19 pandemic, no cultural heritage specific site visit was undertaken. Efforts have been made to access physical archives remotely, whilst photographs and observations from other practitioners who have visited the site have been consulted in the completion of this impact assessment.

10.4.7 Undiscovered Archaeological Remains

Given the agricultural history of the Site, with no indication of significant structures, and the scale of late 20th century development, the potential for undiscovered archaeological remains to exist within the Site is considered to be very low. It cannot be entirely discounted however, particularly deeper features that may have survived previous development at the Site (e.g. the field boundary indicated on historic mapping).

10.5 Characteristics of the Proposed Development

The Proposed Development will comprise of:

(i) construction of a Build-To-Rent residential development within a new part six, part eight, part nine, part eleven storey rising to a landmark seventeen storey over basement level apartment building (40,814sq.m) comprising 428 no. apartments (41 no. studio, 285 no. one-bedroom, 94 no. two-bedroom & 8 no. three-bedroom units) of which 413 no. apartments have access to private amenity space, in the form of a balcony or lawn/terrace, and 15 no. apartments have access to a shared private roof terrace (142sq.m) at ninth floor level;

(ii) all apartments have access to 2,600sq.m of communal amenity space, spread over a courtyard at first floor level and roof terraces at sixth, eighth and ninth floor levels, a 142sq.m resident's childcare facility at ground floor level, 392sq.m of resident's amenities, including concierge/meeting rooms, office/co-working space at ground floor level and a meeting/games room at first floor level, and 696sq.m of resident's amenities/community infrastructure inclusive of cinema, gym, yoga studio, laundry and café/lounge at ground floor level. The café/lounge will primarily serve the residents of the development and will be open for community use on a weekly/sessional basis;

(iii) provision of 145 no. vehicular parking spaces (including 8 no. mobility parking spaces, 2 no. club-car spaces and 44 no. electric charging spaces), 5 no. motorcycle parking spaces, bin stores, plant rooms, switch room and 2 no. ESB sub-stations all at ground floor level; provision of bicycle parking (752 no. spaces), plant and storage at basement level; permission is also sought for the removal of the existing vehicular entrance and construction of a replacement vehicular entrance in the north-western corner of the site off Carmanhall Road;

(iv) provision of improvements to street frontages to adjoining public realm of Carmanhall Road & Blackthorn Road comprising an upgraded pedestrian footpath, new cycling infrastructure, an increased quantum of landscaping and street-planting, new street furniture inclusive of bins, benches and cycle parking facilities and the upgrading of the existing Carmanhall Road & Blackthorn Road junction through provision of a new uncontrolled pedestrian crossing; and,

(v) All ancillary works including provision of play equipment, boundary treatments, drainage works - including SuDS drainage, landscaping, lighting, rooftop telecommunications structure and all other associated site services, site infrastructure and site development works. The former Avid Technology International buildings were demolished on foot of Reg. Ref. D16A/0158 which also permitted a part-five rising to eight storey apartment building. The development approved under Reg. Ref. D16A/0158, and a subsequent part-seven rising to nine storey student accommodation development permitted under Reg. Ref. PL06D.303467, will be superseded by the Proposed Development.

10.5.1 Characteristics of Significance for Cultural Heritage

The total area of the application boundary is approximately 1.03 ha, within which construction works have the potential to disturb ground and is the most pertinent characteristic of the development in terms of assessing impact to cultural heritage.

The total height, which will determine how visible the Proposed Development is within the Study Area, is also a key characteristic. At its highest point, the Proposed Development will be seventeen storeys high.

10.6 Potential Effects

Using the assessment methodology described in Section 10.3, the effects of the Proposed Development upon cultural heritage assets have been assessed. Effects have been considered during construction and 'operation' (i.e. occupation of the residences). Decommissioning has been scoped out of the assessment due to the nature of the Proposed Development. However, it is considered that any decommissioning effects would be similar to, or less than, those predicted during construction.

10.6.1 Construction Phase

There are no known cultural heritage assets within the Site, and so no direct effects are predicted to known designated or non-designated assets. Whilst the potential for undiscovered archaeological remains within the Site is considered to be very low, it cannot be discounted entirely. Notably, there is a potential field boundary bisecting the Site, deeper sections of which may have survived previous disturbance. As such, there is potential for these undiscovered archaeological remains to be directly affected by ground disturbance during construction.

The Air Quality (Chapter 8.0) and Noise (Chapter 9.0) assessments indicate that there will be no significant effects during construction of the Proposed Development. As such, no indirect effects on the setting of cultural heritage assets within the Study Area are predicted as a result of emissions to air or noise emissions.

The landscape and visual impact assessment (LVIA; Chapter 13.0) indicates that there will be no significant effects either to the townscape or at representative viewpoints within the Study Area during construction. Whilst the Proposed Development will potentially be visible at a number of cultural heritage assets, in the context of existing development in the Sandyford Industrial Estate and more widely across southern Dublin, it is not expected that visual changes as a result of the Proposed Development will result in material changes to the setting of these cultural heritage assets, especially those with only distant potential views.

Table 10.7 presents the potential construction phase effects on cultural heritage assets.

Table 10.7: Potential Effects - Construction Phase

Golder ID	Description of Effect	Magnitude of Effect	Asset value	Significance of Effect (before mitigation)
Potential Undiscovered Archaeological Remains	Ground disturbance – potential for undiscovered archaeological remains beneath the surface to be disturbed by construction. Effect is permanent and irreversible.	High	Very High	Profound adverse*

*this is a conservative scenario, assuming very high value archaeological remains do exist within the Proposed Development.

10.6.2 Operational Phase

Ground disturbance will be limited to construction activities, and so no direct effects are predicted as a result of operation.

The Air Quality (Chapter 8.0) and Noise (Chapter 9.0) assessments indicate that there will be no significant effects during operation of the Proposed Development. As such, no indirect effects on the setting of cultural heritage assets within the Study Area are predicted as a result of emissions to air or noise emissions.

The landscape and visual impact assessment (LVIA; Chapter 13.0) indicates that there will be no significant effects either to the townscape or at representative viewpoints within the Study Area during operation. It is expected that visual changes during construction are permanent, but these are not expected to materially change the setting of cultural heritage assets.

10.6.3 'Do-Nothing' Scenario

If the Proposed Development weren't to be developed, i.e. the 'do-nothing' scenario, there would be no change to the existing baseline as described in Section 10.4 and there would be no impact to cultural heritage assets as a result of the Proposed Development.

10.7 Mitigation and Management

10.7.1 Construction Phase

To mitigate for the potential presence of undiscovered archaeological remains within the Site, it is recommended that the initial soil stripping works, prior to excavation of the foundations and basement, are completed under licensed archaeological supervision ('watching brief'). If features, such as the potential field boundary, are identified, the supervising archaeologist should hand excavate and, if appropriate, sample a portion of the feature (if suitable materials are discovered).

The Main Contractor is required to appoint a suitably qualified and licensed specialist archaeological contractor to undertake these works and ensure these works are accommodated within the construction programme.

The appointed archaeological contractor will be required to prepare an archaeological method statement for the proposed works, which will be agreed and approved by the National Monuments Service (NMS). The appointed archaeological contractor will also be required to obtain the relevant licences to undertake the works.

10.7.2 Operation Phase

No cultural heritage specific mitigation is proposed during operation.

10.7.3 Monitoring

Beyond the proposed watching brief, no long-term or on-going monitoring for cultural heritage is proposed.

10.8 Residual Effects

10.8.1 Construction Phase

The residual effects of the Proposed Development during construction are presented Table 10.8.

Table 10.8: Residual Effects - Construction Phase

Golder ID	Description of Effect	Magnitude of Effect	Asset value	Significance of Effect (after mitigation)
Potential Undiscovered	Ground disturbance – potential for undiscovered archaeological remains	Negligible	Very High	Slight adverse*

Golder ID	Description of Effect	Magnitude of Effect	Asset value	Significance of Effect (after mitigation)
Archaeological Remains	beneath the surface to be disturbed by construction. Effect is permanent and irreversible.			

*this is a conservative scenario, assuming very high value archaeological remains do exist within the Proposed Development.

10.8.2 Operational Phase

No residual effects from the Proposed Development are predicted on cultural heritage assets during operation.

10.9 Difficulties Encountered

A key limitation is that the assessment methodology cannot account for cultural heritage assets that are not recorded in the available data sources. Previously unrecorded assets, such as sub-surface archaeological remains, which do not present any diagnostic features, would not necessarily be identified by the desk-study.

Information has been used from a range of sources to determine baseline cultural heritage conditions. This assessment is therefore limited by the availability and reliability of these data sources.

Travel restrictions and public health safety measures associated with the COVID-19 pandemic meant a cultural heritage specific site visit was not undertaken, restricting opportunities for assessing indirect impacts to setting (particularly with regards to visual effects). This has been overcome using photographs and observations collected by other practitioners during site visits, and through close collaboration with other relevant specialists (e.g. air quality, noise and landscape and visual).

10.10 Summary and Conclusions

A multi-storey Strategic Housing Development, with a combination of residential, office and retail space, is proposed to be constructed on brownfield land within the Sandyford Industrial Park. A detailed study has been undertaken to determine the cultural heritage baseline conditions and a full impact assessment of the Proposed Development has been completed.

It is considered that the Proposed Development would have no direct or indirect impacts upon known cultural heritage assets within the Study Area. There is potential, however, for undiscovered archaeological remains to exist beneath the ground at the Proposed Development, which, if present, could be disturbed by construction activities. It is proposed that soil stripping activity is undertaken under licensed archaeological supervision to mitigate for this risk.

10.11 References

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