

Chapter 11.0

Cultural Heritage

11.0 Introduction

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This chapter assesses the impacts of the proposed development on the known and potential cultural heritage resource. UNESCO define the term 'Cultural Heritage' as encompassing several aspects of tangible assets (*immovable*: archaeological sites and monuments, architectural heritage buildings; *movable*: artefacts; and underwater: shipwrecks and ruins) and intangible assets e.g. folklore, oral tradition and language (including archaeological monuments and artefacts, architectural heritage, folklore and tradition). Based on the assessment of impacts, the chapter then identifies appropriate mitigation strategies.

The recorded and potential cultural heritage resource within a study area encompassing the proposed development site and the lands extending for 1km from its boundary were assessed in order to compile a comprehensive cultural heritage context.

11.1 Proposed Development

The proposed development will comprise the construction of a housing development, with ancillary services and access roads, within a number of vacant tillage fields located in Lahardane townland, Co. Cork. Longview Estates Ltd intend to apply to An Bord Pleanála for permission for a strategic housing development of 753 no residential units on these lands. The proposed development also includes a local centre containing a doctor's surgery, retail, community use and a crèche and all associated and ancillary site development works. A detailed description of the proposed development has been provided in Chapter 2 of this EIAR.

11.2 Assessment Methodology

11.2.1 Desktop Study

Documentary research on the recorded and potential cultural heritage resource within the study area was undertaken in order to identify all recorded archaeological, architectural and other cultural heritage sites and features within the proposed development site and its environs. This information has provided an insight into the development of the study area over time and assisted in an evaluation of the potential presence of unrecorded cultural heritage sites or features within the proposed development site and its environs.

The *Sites and Monuments Record (SMR)* and the *Record of Monuments and Places (RMP)* for County Cork, both published by the Archaeological Survey of Ireland, were the principal sources for identifying known archaeological constraints within the study area. The following sources were also consulted as part of the desktop study:

- *Cork County Development Plan 2014*: this publication lists the buildings and structures included in the Council's Record of Protected Structures and it also details the Council's policies and objectives designed for the protection of the archaeological and architectural heritage resources within the county. The relevant policies are presented in Section 11.3 of this chapter. The Cork City Development Plan 2015-2021 and the Cobh Municipal District Local Area Plan 2017 were also consulted.
- *Archaeological Inventory of County Cork Volumes 2 and 5*: these publications present summary descriptions of the recorded archaeological sites within this area of the county and the relevant entries are presented in **Appendix 11.1**.
- *National Inventory of Architectural Heritage (NIAH)*: this inventory provides a comprehensive catalogue of significant architectural heritage structures within Ireland. While inclusion in the inventory does not provide statutory protection to a structure it is used to advise local authorities on compilation of their Record of Protected Structures. The relevant inventory entries are presented in **Appendix 11.2**.
- *Database of Irish Excavation Reports*: This database contains summary accounts of all archaeological excavations carried out in Ireland (North and South) from 1970 to 2019.
- *National Museum Topographical Files*: these files are archived in the National Museum of Ireland, Kildare Street, Dublin and record the find spots of artefacts within the museum's collection.
- *Historical publications and cartographic sources*: available relevant published sources and historical maps were consulted as part of the assessment. The historical maps are presented within the body of the chapter and a list of consulted publications is provided in Section 11.12 of this chapter.
- *Aerial Imagery*: the available online aerial imagery of the study area was consulted in order to determine if any traces of sub-surface archaeological sites were evident.
- *Placenames Database of Ireland*: this online database provides a comprehensive management system for data, archival records and place names research conducted by the State.
- *Irish National Folklore Collection*: material from the National Folklore Collection archive has been digitised and published on www.duchas.ie, which includes material from the Main Manuscript Collection and the Photographic Collection
- *UNESCO World Heritage Sites and Tentative List*: UNESCO seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. There are two world heritage sites in Ireland and a number of other significant sites are included in a Tentative List (2010) that has been put forward by Ireland for inclusion.

11.2.2 Field Survey

The proposed development site was inspected in August 2017 and November 2018. The lands were assessed in terms of landscape, existing land use, vegetation cover, presence or lack of unrecorded archaeological and architectural heritage sites and features. All lands

within the site boundary were accessible and there were no constraints encountered during the survey.

11.2.3 Assessment of Effects

The methodology used for this assessment was informed by various Environmental Protection Agency (EPA) guidelines and advice notes. These comprised the *Advice Notes on Current Practice in the preparation of Environmental Impact Statements* (2003), *Guidelines on the Information to be contained in Environmental Impact Statements, Draft Advice Notes for Preparing an EIS* (2015) and *Draft Guidelines for Information to be Contained in EIAR* (2017). These guidelines and advice notes were compiled in accordance with EIA requirements of codified EU Directive 2011/92/EU as amended by EU Directive 2014/52/EU, per current Planning Legislation, concerning EIA assessment: *Planning and Development Act, 2000 (as amended) (Part X)* and in *Part 10 of the Planning and Development Regulations, 2001 (as amended)*.

Assessment of impacts was achieved by a consideration of the **duration, quality, type, value and magnitude** of effect(s) on the cultural heritage resource:

Duration of Effect

The duration of effects is assessed based on the following criteria:

- Momentary (seconds to minutes)
- Brief < 1 day
- Temporary <1 year
- Short-term 1-7 years
- Medium Term 7-15 years
- Long Term 15-60 years
- Permanent > 60 years

Quality of Effect

The quality of an effect on the cultural heritage resource can be **positive, neutral or negative**.

- *Positive Effect* – a change which improves the quality of the cultural heritage environment (e.g. increasing amenity value of a site in terms of managed access, signage, presentation etc. or high-quality conservation/restoration and re-use of an otherwise vulnerable derelict structure).
- *Neutral Effect* – no change or effects that are imperceptible, within the normal bounds of variation for the cultural heritage environment.
- *Negative Effect* – a change which reduces the quality of the cultural heritage resource (e.g. visual intrusion on the setting of an asset, physical intrusion on features/setting of a site etc.)

Type of Effect

The type of effect on the cultural heritage resource can be **direct, indirect or no predicted impact**.

- *Direct Impact* – where a cultural heritage site is physically located within the footprint of the proposed development, which will result in its complete or partial removal.
- *Indirect Impact* – where a cultural heritage site or its setting is located in close proximity to the footprint of the proposed development.
- *No predicted impact* – where the proposed development will not adversely or positively affect a cultural heritage site.

The ***Significance of the Effect*** is based on an assessment largely of the **Magnitude of the Impact** (graded from High to Negligible, based on a consideration of character, duration, probability and consequences) and the **Value** (graded from High to Negligible, based on a consideration of significance/sensitivity) of the heritage asset.

Magnitude of Impact (degree of change, incorporating any mitigation measures) can be negative or positive, and should be ranked without regard to the value of the asset according to the following scale: **High; Medium; Low and Negligible**.

The evaluation of the **Value** of a heritage asset is largely based on its significance criteria, and should not be considered definitive, but rather an indicator which contributes to a wider judgment based on the individual circumstances of each feature. Generally, the more criteria that are evident for a given asset, the higher in scale its respective Value shall be. Criteria to be considered in addition to any legal designations include a consideration of the condition/preservation; documentary/historical significance; group value; rarity; visibility in the landscape; fragility/vulnerability and amenity value.

The **Value** of all known or potential assets that may be affected by the proposed project are ranked according to the following scale: **High; Medium; Low and Negligible**. The Values are outlined in Table 11.1 and have been informed by the International Council on Monuments and Sites (ICOMOS) *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (2011, 14-17).

Table 11.1 Factors for assessing the Value of Cultural Heritage Assets (after ICOMOS 2011)¹

Value	Examples of Asset Types
Very High	<ul style="list-style-type: none"> • World Heritage Sites (including Tentative List properties) • Assets of acknowledged international importance, including buildings • Assets that can contribute significantly to acknowledged international research objectives
High	<ul style="list-style-type: none"> • Designated <i>National Monuments</i> (archaeological) • Assets of significant quality and importance, including designated RMP sites • Assets that can contribute significantly to acknowledged national research objectives • Protected Structures/National NIAH Grade Buildings • Conservation Areas containing significant buildings of importance, including group value • Archaeological Landscapes with significant inter-group value
Medium	<ul style="list-style-type: none"> • Assets of good quality and importance, including designated RMP sites • Assets that can contribute significantly to acknowledged regional research objectives • Regional Grade NIAH Buildings • Other undesignated buildings that can be shown to have exceptional qualities in their fabric or historical associations • Undesignated structures of potential national importance (archaeological, potential 'new sites') • Conservation Areas containing buildings that contribute significantly to its historic character • Historic townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Low	<ul style="list-style-type: none"> • Designated and undesignated assets of local importance, including buildings • Assets compromised by poor preservation and/or poor survival of contextual associations • Assets of limited value, but with potential to contribute to local research objectives • Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Negligible	<ul style="list-style-type: none"> • Assets with very little or no surviving archaeological interest • Buildings of no architectural or historical note; buildings of an intrusive character

The **Significance of Effect** can be described as **Profound, Very Significant, Significant, Moderate, Slight, Not Significant or Imperceptible**.

¹ This table is indicative only and to be used together with a consideration of the condition/preservation; documentary/historical significance; group value; rarity; visibility in the landscape; fragility/vulnerability and amenity value of the Cultural Heritage Asset itself on a case-by-case basis

Table 11.2 Significance of Effects (per EPA Draft Guidelines 2017)

Significance	Description
Imperceptible	An effect capable of measurement but without significant consequences
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight	An effect which causes noticeable changes in the character of the environment but without affecting its sensitivities
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
Significant	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
Profound	An effect which obliterates sensitive characteristics

Table 11.3 Matrix for assessment of impact significance (after EPA Draft Guidelines 2017)

Magnitude of Impact	High	Not Significant/ Slight	Moderate/ Significant	Significant/ Very Significant	Very Significant/ Profound
	Medium	Not Significant	Slight	Moderate/ Significant	Significant/ Very significant
	Low	Not Significant/ Imperceptible	Slight/ Not Significant	Slight	Moderate
	Negligible	Imperceptible	Not Significant/ Imperceptible	Not Significant/ Slight	Slight
		Negligible	Low	Medium	High
		<i>Value/Sensitivity of the Asset</i>			

11.3 Receiving Environment

11.3.1 Legal and Planning Context

The management and protection of cultural heritage in Ireland is achieved through a framework of national laws and policies which are in accordance with the provisions of the Valetta Treaty (1995) (formally the *European Convention on the Protection of the Archaeological Heritage*, 1992) ratified by Ireland in 1997; the *European Convention on the Protection of Architectural Heritage* (Granada Convention, 1985), ratified by Ireland in 1997; and the *UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage*, 2003, ratified by Ireland in 2015.

The locations of *World Heritage Sites (Ireland) and the Tentative List of World Heritage Sites* submitted by the Irish State to UNESCO were reviewed and none are located in the vicinity of the proposed development.

The national legal statutes and guidelines relevant to this assessment include:

- National Monuments Act, 1930 (and amendments in 1954, 1987, 1994 and 2004);
- Heritage Act, 1995;
- National Cultural Institutions Act, 1997;
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999;
- Planning and Development Act 2000 (as amended);
- *Architectural Heritage Protection: Guidelines for Planning Authorities*, Department of Arts, Heritage, and the Gaeltacht (2011)
- *Framework and Principles for the Protection of the Archaeological Heritage* (Department of Arts, Heritage, Gaeltacht and the Islands 1999);

The Archaeological Resource

The following section presents a summary of the legal and policy frameworks designed to protect the Irish archaeological resource and further information is available in the *Framework and Principles for the Protection of the Archaeological Heritage*² published by the Department of Arts, Heritage, Gaeltacht and the Islands (1999). The *National Monuments Acts 1930 to 2004*, the *Heritage Act 1995* and relevant provisions of the *National Cultural Institutions Act 1997* are the primary means of ensuring the satisfactory protection of archaeological remains, which are deemed to include all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes.

There are a number of mechanisms under the National Monuments Acts that are applied to secure the protection of archaeological monuments. These include designating sites as National Monuments, the Register of Historic Monuments, the Record of Monuments and Places, the Sites and Monuments Record, and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

A national monument is described as “*a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto*” (Section 2, National Monument Act, 1930). National Monuments may be acquired by the Minister whether by agreement or by compulsory order. The State or Local Authority may assume

²<https://www.archaeology.ie/sites/default/files/media/publications/framework-and-principles-for-protection-of-archaeological-heritage.pdf>

guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the Local Authority as guardian of that monument if the State or Local Authority agrees. Once the site is in ownership or guardianship of the State it may not be interfered with without the written consent of the Minister. There are no National Monuments located within the study area.

Archaeological sites deemed to be in danger of damage or destruction can be allocated Preservation Orders under the National Monuments Act, 1930. Preservation Orders make any interference to the site illegal. Temporary Preservation Orders can be attached under the 1954 National Monuments (Amendment) Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation relevant to the site must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders by the written consent, and at the discretion, of the Minister. There are no monuments with Preservation Orders within the study area.

Section 5 of the 1987 National Monuments (Amendment) Act states that the Minister is required to establish and maintain a Register of Historic Monuments. Historic monuments and archaeological areas listed on the register are afforded statutory protection under this Act. Any interference of sites recorded in the Register without the permission of the Minister is illegal, and two months' notice in writing is required prior to any work being undertaken on or in the vicinity of a registered monument. The Record of Monuments and Places (RMP) was established under the National Monuments (Amendment) Act, 1994 and was based on the RHM and the Sites and Monuments Record (SMR).

The RMP comprises of county-based lists of monuments and relevant places with associated maps showing their locations and includes the examples listed in the Register of Historic Monuments. All archaeological sites listed in the RMP receive statutory protection under the National Monuments (Amendment) Act, 1994. Section 12 (3) of the 1994 Act provides that "*where the owner or occupier (other than the Minister for Environment, Heritage and Local Government) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister to carry out work and shall not, except in the case of urgent necessity and with the consent of the Minister, commence the work until two months after the giving of notice*".

There are no recorded archaeological monuments located within the proposed development site while there are twenty-one examples within the surrounding 1km study area (see Table 11.4 below). None of these recorded sites are located within 120m of the boundary of the proposed development site.

The Cork County Council Development Plan 2014 outlines a number of policies and objectives in relation to the protection of the archaeological resource and these include the following:

HE 3-1: Protection of Archaeological Sites

- a) Safeguard sites and settings, features and objects of archaeological interest generally.*
- b) Secure the preservation (i.e. preservation in situ or in exceptional cases preservation by record) of all archaeological monuments including the Sites and Monuments Record (SMR) (see www.archeology.ie) and the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, as*

amended and of sites, features and objects of archaeological and historical interest generally.

HE 3-3: Zones of Archaeological Potential

Protect the Zones of Archaeological Potential (ZAPs) located within historic towns and other urban areas and around archaeological monuments generally. Any development within the ZAPs will need to take cognisance of the potential for subsurface archaeology and if archaeology is demonstrated to be present appropriate mitigation (such as preservation in situ/buffer zones) will be required.

HE 3-4: Industrial Archaeology

Protect and preserve the archaeological value of industrial and post-medieval archaeology such as mills, lime kilns, bridges, harbours, penal chapels and dwellings. Proposals for refurbishment, works to or redevelopment / conversion of these sites should be subject to assessment.

12.3.16: Where archaeological materials are found appropriate mitigation measures shall be put in place. Preservation in situ should generally be the presumed option and only compelling reasons can justify preservation by record:

Architectural Heritage

The following presents a summary of the legal and policy frameworks designed to protect the Irish architectural heritage resource and further information is available in the *Architectural Heritage Protection: Guidelines for Planning Authorities*³, published by the Department of Arts, Heritage, and the Gaeltacht (2011). The protection of architectural heritage is provided for through a range of legal instruments that include the Heritage Act, 1995, the Architectural Heritage (National Inventory) & National Monuments (Misc. Provisions) Act, 1999, and the Planning and Development Act 2000.

The Planning and Development Act, 2000 requires all Planning Authorities to establish Records of Protected Structures (RPS) for structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Since the introduction of this legislation, planning permission is required for any works to a protected structure that would affect its character. The Cork County Development Plan 2014 does not list any protected structures within the proposed development site and the only example within the surrounding study area is a house named 'Flower Hill' located approx. 760m to the west (PS 00469).

The Planning and Development Act (as amended) provides that all Development Plans must include objectives for preserving the character of Architectural Conservation Areas (ACAs). An ACA is a place, area, group of structures or townscape of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, or which contribute to the appreciate of protected structures. The Cork County Development Plan 2014 does not designate any ACAs within the study area.

The National Inventory of Architectural Heritage (NIAH) was established under the Architectural Heritage Act, 1999, to record built heritage structures within the Republic of Ireland. While inclusion in an NIAH inventory does not provide statutory protection; the

³<https://www.chg.gov.ie/app/uploads/2015/07/Architectural-Heritage-Protection-Guidelines-2011.pdf>

inventory is intended to advise local authorities on compilation of their Records of Protected Structures. The NIAH lists three structures within the study area (Table 11.4) and none of these are within 600m of the proposed development site. The published inventory descriptions of these NIAH structures are presented in **Appendix 11.2**.

Table 11.4 NIAH structures within study area

NIAH ref.	Townland	Name of Structure	Distance from PDS
20859001	Ballycolly	Delaney Brothers Monument	660m to west
20859002	Ballycolly	St Oliver's Roman Catholic Church	610m to southwest
20859003	Banduff	Banduff House	780m to southeast

The Cork County Council Development Plan 2014 outlines a number of objectives to ensure the protection of the architectural heritage resource within the County and these include:

HE 4-1: Record of Protected Structures

d) Ensure the protection of all structures (or parts of structures) contained in the Record of Protected Structures.

e) Protect the curtilage and attendant grounds of all structures

HE 4-2: Protection of Structures on the NIAH

Give regard to and consideration of all structures which are included in the NIAH for County Cork, which are not currently included in the Record of Protected Structures, in development management functions.

HE 4-3: Protection of Non- Structural Elements of Built Heritage

Protect important non-structural elements of the built heritage. These can include designed gardens/garden features, masonry walls, railings, follies, gates, bridges, and street furniture. The Council will promote awareness and best practice in relation to these elements.

EIA Legislative Framework

The EIA Directives (from 1985 to 2014) set out the requirement for an EIA in European law. This assessment has been prepared in accordance EIA requirements of codified Council Directive 2011/92/EU as amended by EIA Council Directive 2014/52/EU, per current Planning Legislation, concerning EIA assessment: Planning and Development Act, 2000 (as amended) (Part X) and in Part 10 of the Planning and Development Regulations, 2001 (as amended).

Ireland has transposed EU Directive 2014/52/EU by way of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 which came into operation on 1st September 2018. The Regulations provide for the transposition of the 2014 EIA Directive and give further effect to the 2011 EIA Directive by way of extensive amendments to existing planning law.

11.3.2 Archaeological and Historical Context

The following section presents a summary of the archaeological and historical context of the study area and includes summary details of the main periods within the Irish archaeological record with references to the recorded archaeological sites located within the study area. The dating framework used for each period is based on the Guidelines for Authors of Reports on Archaeological Excavations published by the National Monuments Service (NMS)⁴. Datasets have been interrogated and retrieved largely from State Body organisations and are considered accurate and current per publicly available information (Archaeological datasets Historic Map Viewer: Dept. Culture, Heritage & Gaeltacht www.archaeology.ie; Excavation Reports www.excavations.ie, NIAH datasets www.buildingofireland.ie and the Cork County Council RPS).

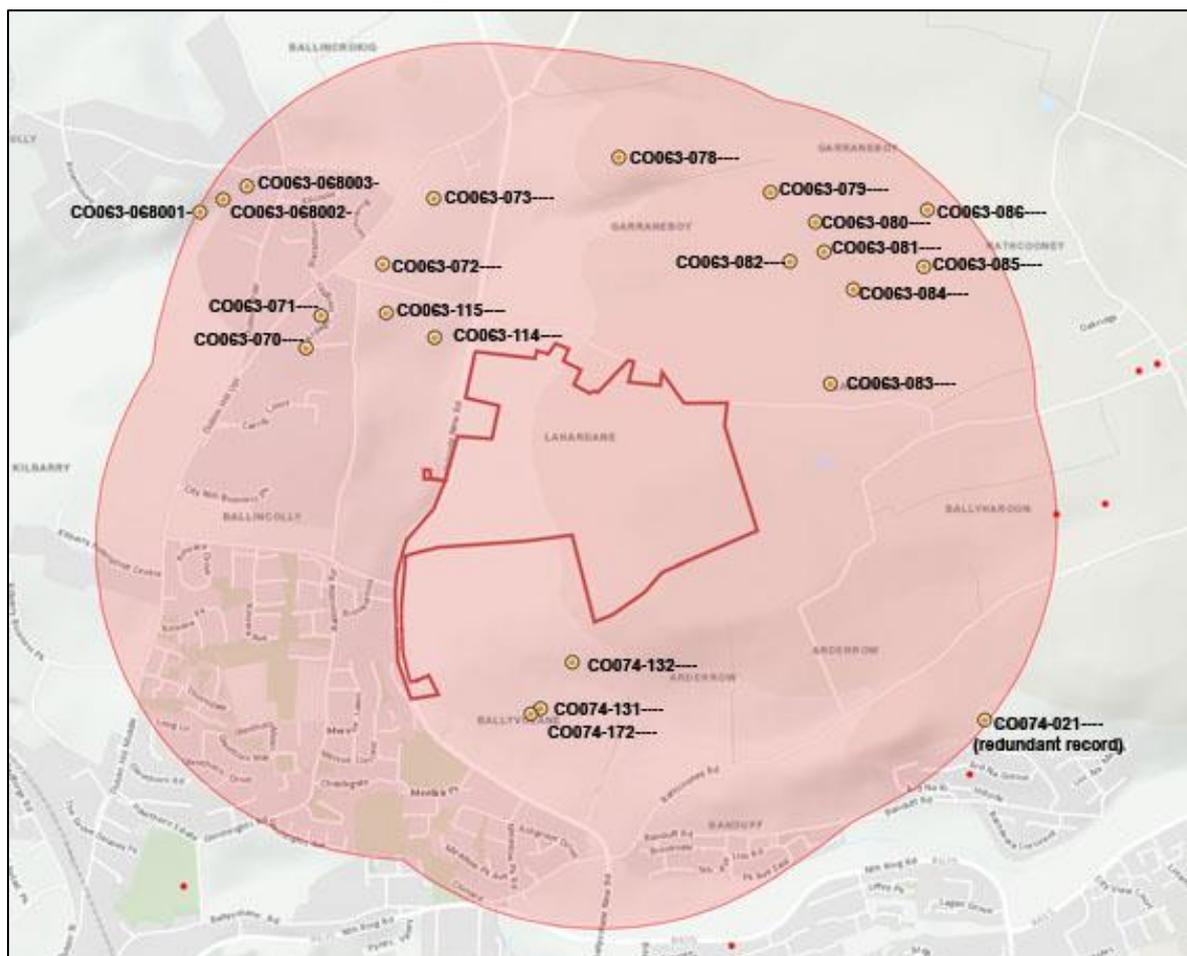
The published inventory descriptions of the recorded archaeological sites within the study area, which were compiled by the Archaeological Survey of Ireland, are presented in **Appendix 11.1**

Table 11.5 Recorded archaeological sites within study area (*no visible surface traces)

Monument No.	Class	Townland	ITM E	ITM N	Distance from PDS
CO063-068001-	Mill - corn	KILCULLY	568035	575935	860m to west
*CO063-068002-	Mill unclassified	KILCULLY	568114	575967	860m to west
CO063-068003-	Mill unclassified	KILCULLY	568186	576005	870m to west
*CO063-070----	Standing stone	BALLINCROKIG	568364	575516	490m to west
*CO063-071----	Standing stone	BALLINCROKIG	568409	575613	480m to west
CO063-072----	Standing stone	BALLINCROKIG	568594	575769	370m to northwest
CO063-073----	Standing stone	BALLINCROKIG	568747	575969	482m to northwest
CO063-078----	Standing stone	GARRANEBOY	569304	576093	600m to north
*CO063-079----	Standing stone	GARRANEBOY	569759	575988	630m to north
*CO063-080----	Standing stone	GARRANEBOY	569892	575896	560m to north
*CO063-081----	Standing stone	GARRANEBOY	569919	575807	540m to north

⁴<https://www.archaeology.ie/sites/default/files/media/publications/excavation-reports-guidelines-for-authors.pdf>

Monument No.	Class	Townland	ITM E	ITM N	Distance from PDS
*CO063-082----	Ringfort - rath	GARRANEBOY	569817	575777	460m to north
CO063-083----	Standing stone	LAHARDANE	569937	575407	340m to northeast
CO063-084----	Fulacht fia	LAHARDANE	570006	575693	500m to northeast
CO063-085----	Fulacht fia	RATHCOONEY	570219	575762	730m to northeast
*CO063-086----	Ringfort - rath	RATHCOONEY	570228	575933	880m to northeast
*CO063-114----	Ringfort - rath	BALLINCROKIG	568751	575549	120m to west
CO063-115----	Souterrain	BALLINCROKIG	568604	575623	280m to west
CO074-131----	Burnt mound	BALLYVOLANE	569069	574427	480m to south
CO074-132----	Burnt mound	BALLYVOLANE	569164	574567	300m to east
CO074-172----	Fulacht fia	BALLYVOLANE	569039	574409	300m to south

Figure 11.1 Locations of recorded archaeological sites within study area (shaded)

Mesolithic Period

Until the recent identification of Palaeolithic human butchery marks on a bear bone recovered from a cave site in County Clare, the earliest recorded evidence for human activity in Ireland dated to the Mesolithic period (7000–4000 BC) when groups of hunter-gatherers lived on the heavily forested island. While these Mesolithic groups did not construct settlements or monuments that have left any above ground traces, their presence in an area can be identified during topsoil stripping works and scatters of worked flints in ploughed fields. There are no recorded Mesolithic sites located within the study area although evidence for human activity during this period has been identified elsewhere in south County Cork.

Neolithic Period

The Neolithic period (4000-2400 BC) began with the arrival and establishment of agriculture as the principal form of economic subsistence, which resulted in more permanent settlement patterns. As a consequence of the more settled nature of agrarian life, new site-types, such as more substantial rectangular timber houses and various types of megalithic tombs, begin to appear in the archaeological record. There are no recorded Neolithic sites located within the study area although examples from this period has been identified elsewhere in south County Cork.

The Bronze Age

Metalworking arrived in Ireland with the advent of the Bronze Age period (c. 2400–500 BC). This new technology introduced a new artefactual assemblage into the Irish archaeological record and this period was also associated with the construction of new monument types such as standing stones, stone rows, stone circles and *fulachta fiadh*. The development of new burial practices meant that the construction of funerary monuments such as cairns, barrows, boulder burials and tumuli or cists was fairly common during this period. The study area contains nine standing stones of which only four are extant and none of these are located within 300m of the proposed development site. These monuments comprise single, unworked upright stones set into a prepared socket dug into the ground and are typically interpreted as Bronze Age ritual monuments. They may have fulfilled a number of functions such as burial markers or were erected to denote the presence of ancient territorial boundaries or routeways.

The study area contains five burnt mounds, or *fulachta fiadh*, and radiocarbon dating of excavated examples of this site type has generally produced dates in the Bronze Age (Brindley *et al*, 1989-90). They are usually found close to a water source and often survive as horseshoe-shaped mounds surrounding a trough, examples of which have been found to be stone or timber-lined. They functioned by digging a trough into the water table which resulted in the ground water percolating into the cut and heated stones were then introduced in order to bring the water to boiling point. The heated stones shattered upon entering the cold water and following each use of the site the shattered stones were removed from the trough and this gradually resulted in the distinctive horseshoe-shaped mound of broken burnt stones around the site. Over time many of these mounds were ploughed out and now survive as levelled burnt spreads of charcoal-enriched soil containing inclusions of burnt stone fragments. They have been typically interpreted as cooking sites and experiments have shown that this water heating process could be used to boil meat in a relatively short period of time (O' Kelly 1954, 105-55). A number of alternative interpretations of their functions have also been postulated, including as potential uses in processes such as bathing, saunas, brewing, animal fat processing and garment-washing/dyeing.

The notable concentration of Bronze Age monuments, or their former locations, within the study area indicates that a well-established settlement pattern had developed within the area during this period.

The Iron Age

The arrival of iron-working technology in Ireland saw the advent of the Iron Age (600 BC – 400 AD). This period has traditionally been associated with a Celtic 'invasion' but this view is no longer widely accepted as recent archaeological evidence points instead to a gradual acculturation of the Irish Bronze Age communities following centuries of contacts with Celtic-type cultures in Europe. Relatively little was known about Iron Age settlement and ritual practices in Ireland until recent decades when the corpus of evidence has been greatly increased by the discovery of sub-surface sites dating to this period during archaeological investigations in advance of development projects. There are no recorded Iron Age sites within the study area.

Early Medieval Period

The early medieval period in Ireland began with the introduction of Christianity and continued up to the arrival of the Anglo-Normans in the late 12th century (c. 400–1169 AD). While this period saw the emergence of the first phases of urbanisation around the larger monasteries and the Hiberno-Norse ports, the dominant settlement pattern was still rural-based and

founded on a small-scale agricultural economy centred on enclosed circular farmsteads known as ringforts. These sites comprise circular or roughly circular areas enclosed by an earthen bank formed of material cast up from an external concentric fosse (or ditch). The ubiquity of ringforts throughout the Irish landscape is attested to by the fact that their original Gaelic names (*rath* and *lios*) still form some of the most common place-name elements in the country.

Archaeological excavations have demonstrated that the majority comprised enclosed farmsteads containing the foundations of domestic and agricultural buildings. While not forts in the military sense, the enclosures did act as a defence against natural predators, such as wolves, and may also have afforded some protection against the cattle raids that appear to have been a common event during this period. Ringforts form the visible element of much wider external agricultural landscapes (known as *airlise*) that may contain unrecorded, sub-surface archaeological features such as associated field systems, stockades, barns, mills and drying kilns. Ringforts may also contain artificial sub-surface features known as souterrains, which derives from the French term *sous terrain* (underground), although unenclosed examples of these sites also exist. There are three recorded levelled ringforts and one isolated souterrain located within the study area.

Late and High Medieval Period

The arrival and conquest of large parts of Ireland by the Anglo-Normans in the late 12th century broadly marks the advent of the Irish high medieval period which continued to c.1400 and was followed by the late medieval period which extended to c.1550. These periods saw the continuing expansion of Irish urbanisation as many of the Viking port towns developed into international trading centres. By the 15th century the native Irish chieftains and lords began to construct tower houses as fortified residences within their landholdings and many towns and villages began to develop as local trading centres. There are no recorded late medieval archaeological sites within the study area.

Post Medieval Period

The centuries following AD 1550 are referred to as the post-medieval period, which is generally considered to continue until the development of the Industrial Revolution during the 18th century. The early part of this period was a turbulent time in Irish history and in the later decades of the 16th century the Tudors, particularly Elizabeth I, began to re-assert English control. The resultant wars between the 1560s and 1603 brought this unsettled period to an end and the following centuries were a time of prosperity for the newly established Protestant gentry and landowners.

The Down Survey was compiled during the 17th century as part of the Cromwellian Plantation and records that Lahardane townland was in the ownership of a Catholic landlord named William Creagh in 1641 while by 1670 it formed part of the holdings of Sir Hans Hamilton who had acquired extensive Irish landholdings in 1669. The 1670 survey records note that Lahardane contained 64 forfeited plantation acres deemed as profitable lands at that time.

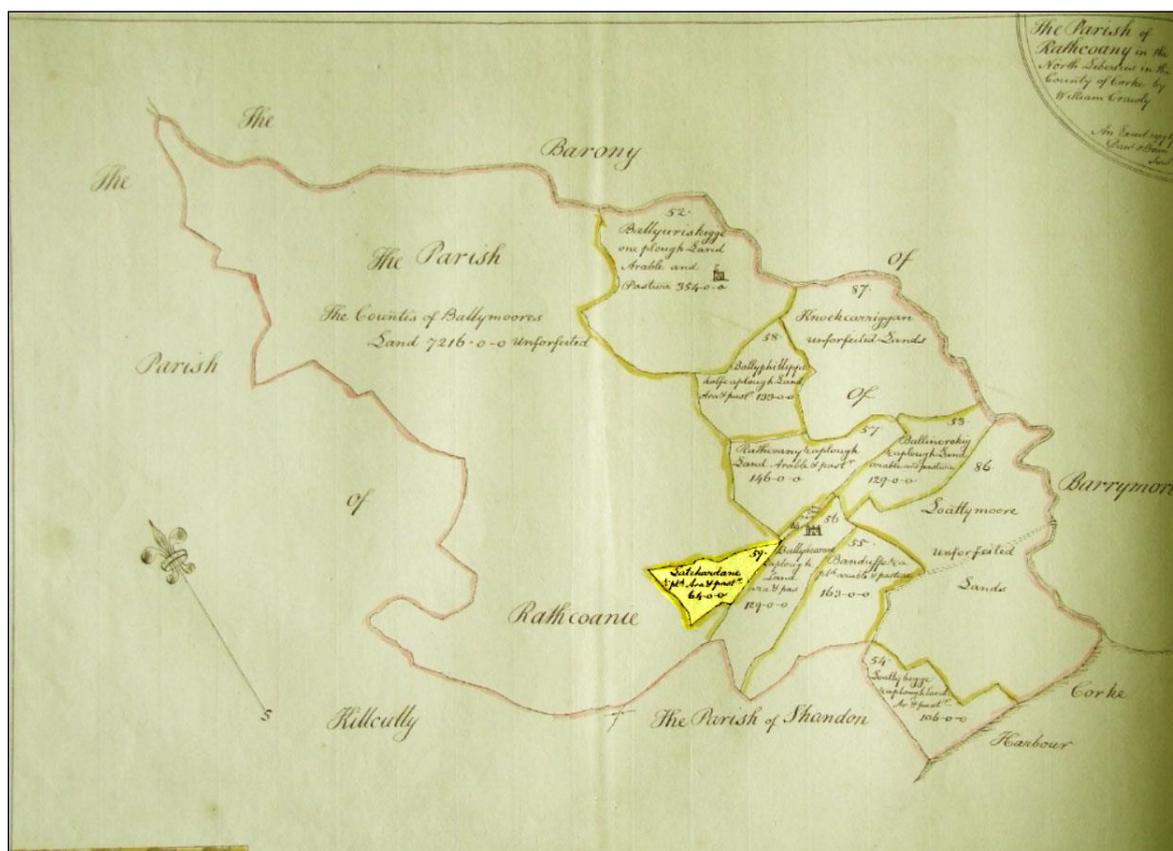
An agricultural boom in the late 18th and early 19th centuries saw a rise in prices for both tillage and dairy produce. Irish landlords began to invest in extensive land improvement works on their estates and this period also saw the widespread construction of new country residences within their lands. Lewis's *Topographical Dictionary of Ireland* (1837) records that Rathcooney Parish, which contains the study area, comprised 4982 statute acres chiefly under tillage at that time and that the system of agriculture was being improved through the use of manures, such as sea-weed and sand, which were producing good quality crops.

There are no references to any large residences in Lahardane or any other historic features within the townland included in his description of the parish. The Griffiths Valuation of 1851 lists five tenant families within the townland and records that the landlord at that time was Jas. Barry. There are three recorded post-medieval archaeological sites located within the study area and these comprise three milling sites clustered along a section of the River Glennamought in Kilcully townland at a distance of approx. 860m to the west of the proposed development site.

Cartographic Evidence

A review of the 17th century Down Survey mapping revealed that there were no buildings or settlements depicted within Lahardane townland, but it is noted that these maps typically only depicted major structures and transport nodes, such as castles, churches, bridges and roads. The map describes the townland as containing areas of ploughlands and pasture (Figure 11.2). The detail on the annotated extracts from the first edition 6-inch OS map (surveyed 1841) and the 25-inch edition map (surveyed 1900) presented below show the proposed development site as vacant fields containing no buildings or agricultural structures (Figures 11.3 and 11.4).

Figure 11.2 17th century Down Survey map of Rathcooney Parish with Lahardane townland highlighted (source: <http://downsurvey.tcd.ie/index.html>)



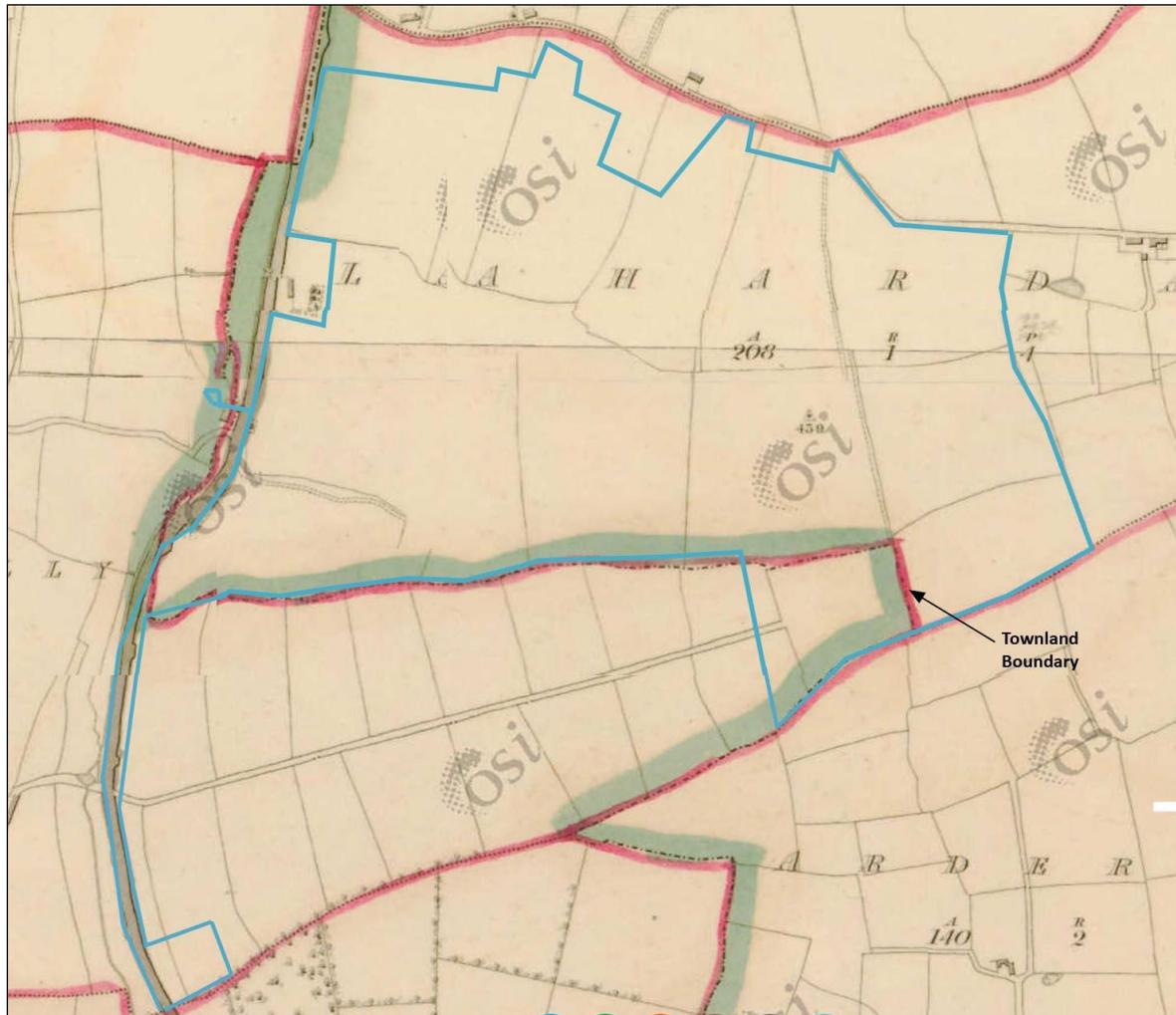


Figure 11.3 Extract from first edition 6-inch map (surveyed in 1841) showing approx. boundary of proposed housing development (blue line) extending into vacant, sub-rectangular fields. The red lines indicate the location of townland boundaries. The existing public roads outside the west and north ends of the site are present with the northern road forming the townland boundary with Garraneboy to the north. Sections of the field boundaries along the south end of the site boundary form part of the townland boundary with Ballincolly to the south and the proposed development extends into one field in this townland (see Figure 11.4; Field 10). A trackway is shown extending from the lands to the west into the field in the southwest corner of the site (see Figure 11.4; Field 9). There are no potential archaeological sites or any built structures shown within the fields although a number of unidentified small buildings are shown in a plot located immediately outside the west end of the site which is named 'Lahardane House' on the 25-inch OS map. (OSI Licence No. SU0003319 © OSI/Government of Ireland). The site of Lahardane House has been excavated out and is now a "Plant Hire" / Storage Yard which is in a third party ownership unrelated to the applicant.

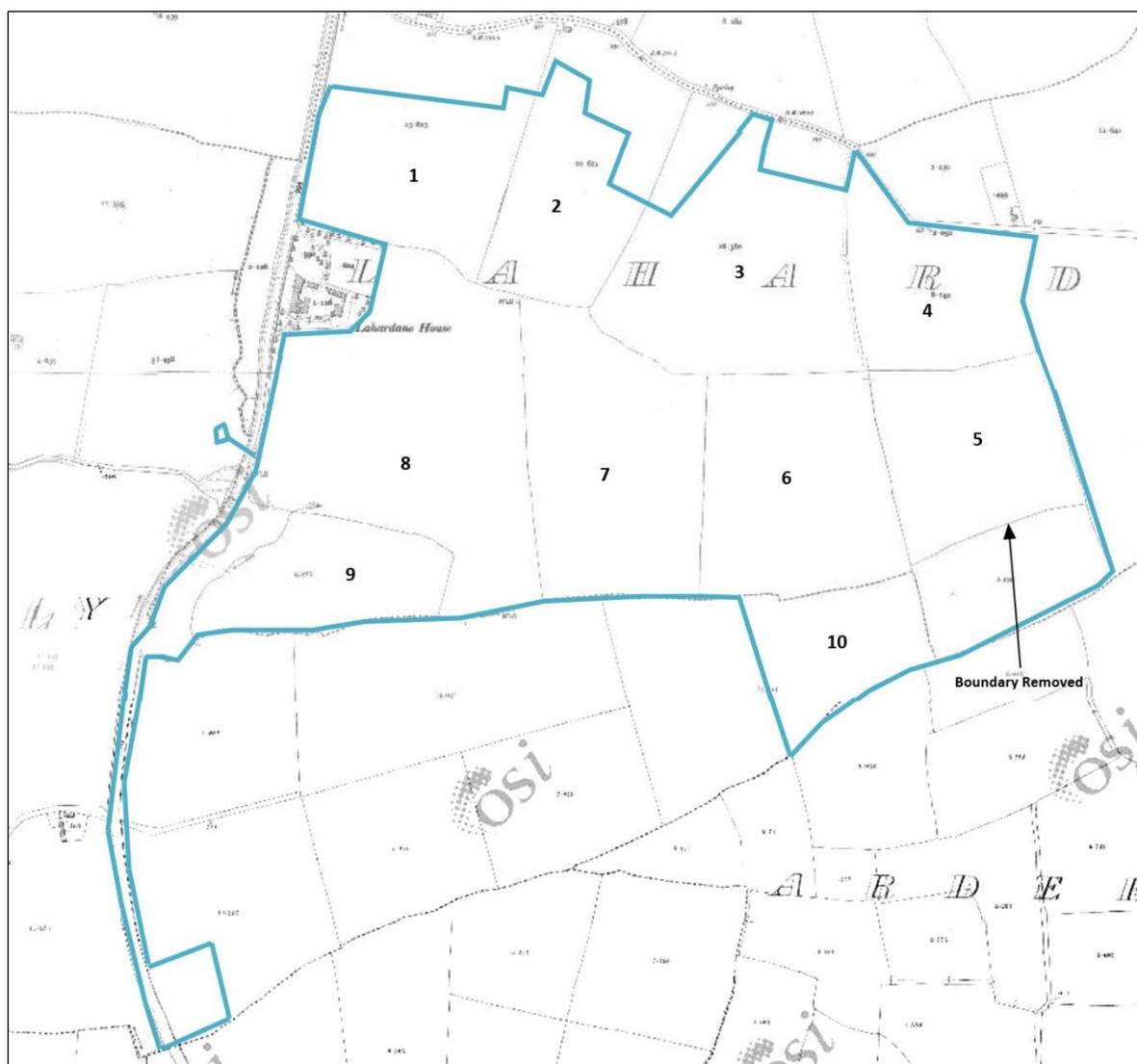


Figure 11.4 Extract from 25-inch edition OS map (surveyed in 1900) showing the approx. boundary of proposed development site and field numbers used during site survey. The only change to the internal layout from that depicted on the 1841 map is the removal of one of a north-south field boundary within Field 3. The main change in the environs of the site is the expanded development within the plot outside the west boundary where a house (labelled Lahardane House) and associated outbuildings are now depicted. The house fronts onto the road to the west and no associated features are indicated within the subject site. As described in the field survey section of this chapter the house and its boundary with the proposed development site is no longer extant and is now occupied by a commercial building. This map also indicates the presence of a well in the northeast corner of Field 8 and a small stream extending southwards from a possible spring in the south end of the same field which continued through the west end of Field 9. (OSI Licence No. SU0003319 © OSI/Government of Ireland)

Excavations Database

The database contains one entry describing geophysical and test trenching investigations within a proposed development site in Ballincroikig townland to the northwest of the subject site, which contains two archaeological monuments located within the study area: Standing Stone CO063-072---- and Souterrain CO063-115---- (Purcell 2018). There were no

unrecorded archaeological features identified and the grant of planning required the establishment of buffer zones surrounding both monuments (Cork County Council Planning ref. 17/06781).

National Museum Topographical Files

The Topographical Files do not contain any records of the discovery of archaeological artefacts within Lahardane townland. They do record the discovery of a flint scraper within Kilbarry townland in the west end of the study area (NMI ref. 2005:1).

Undesignated Cultural Heritage Assets

While encompassing the archaeological and designated architectural heritage resources, cultural heritage also includes various undesignated assets such as historic settlements, demesne features, vernacular structures, folklore, placenames and historical events. The proposed development site is located in the Barony of Cork, the Civil Parish of Rathcooney and the majority is contained within the townland of Lahardane with one field (Figure 11.4; Field 10) extending into Ballincolly townland. The townland boundary between these two areas comprises an overgrown earthen field bank which is deemed to be of low cultural heritage significance.

Townlands are the smallest unit of land division in the Irish landscape and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. The layout and nomenclature of the Irish townlands was recorded and standardised by the work of the Ordnance Survey in the 19th century. The Irish translations of townland names often refer to natural topographical features, but some may also provide an indication of the presence of past human activity within the townland. Lahardane originates from the Gaelic name *An Leathardán*, which has been translated as 'half height', while Ballincolly originates from *Baile an Chalaídh*, 'town of the strath (valley)' (www.logainm.ie). These townland names are not indicative of associations with potential unrecorded archaeological sites.

The Irish Folklore Collection does not record any traditions and stories associated with these townlands and there were no vernacular structures, demesne features or associations with historical events noted during the assessment of the proposed development area.

Aerial Imagery

Various online aerial images of the proposed development site were consulted as part of the assessment, including those published by OS Ireland, Google and Bing. An example of one of these images is presented below (Figure 11.5). Aerial imagery is useful as it may show up archaeological sites on the ground surface, depending on their state of preservation, by light and shadow contrasts, tonal differences in the soil or differences in height and colour of the cultivated cereal.

The consulted images provide overviews of the site from 1995 onwards and all show ploughing activity in each of the fields indicating that the lands have been used as tillage farmland for at least the past two decades. There were no traces of differential soil-marks that may indicate the presence of burnt spreads or levelled ditched enclosures identified on any of the aerial images.

11.3.3 Field Survey

The field surveys of the proposed development site were undertaken in clear weather conditions in August 2017 and November 2018 and all areas of the proposed development site were accessible. The field numbering system used during the site inspection is illustrated on Figure 11.4 (above) and extracts from the photographic record compiled during the surveys are presented in **Appendix 11.3**.

The proposed development site comprises an area of tillage farmland on the outskirts of the modern Ballyvolane suburbs and is approx. 3km north of Cork city centre. The boundary of the proposed development area encompasses a total of ten vacant tillage fields. The location of the lands zoned for the proposed school campus and playing pitches in Fields 6 and 10 were also inspected during the survey although the school campus is not being proposed as part of this planning application. The lands were accessed via a modern field gate on the section of Ballyhooly Road that extends along the western boundary. All of the fields had been recently ploughed at the time of the site inspection undertaken in 2018, which allowed an unimpeded visual inspection of the surface of the ploughsoil.

A number of modern detached houses extend along the roadside to the north of the site boundary and Ballyhooly Road extends along the west side. The former location of Lahardane House in this area is now occupied by a commercial building and no structural remains of this house or associated outbuildings were observed. The boundary between its former location and the proposed development site is formed by a modern fence line screened with planted trees. The site is bounded by farmland to the south and east. Apart from the ongoing ploughing activity the only evidence of recent activity within the fields was the erection of a number of ESB pole sets.

The ground surface within the fields in the western end of the proposed development site (Fields 1, 7, 8 and 9) slope steadily downwards in a westerly direction towards Ballyhooly Road while the fields in the eastern end are relatively level, with some wide natural undulations, and command good views over the surrounding landscape (Fields 3, 4, 5 and 6).

The layout of the field boundaries within the site has not been altered since the compilation of the 25-inch OS map (1900) apart from the removal of one east-west example near the centre of Field 5. There are no farm lanes or tracks within the site and the fields were accessed via gaps in their boundaries with occasional gate pillars of stone and concrete block construction present. The field boundaries generally comprise overgrown earthen banks with traces of drystone revetment visible in areas while a section of the west boundary of Field 7 contained low remnants of a partially collapsed drystone wall (1m max height). This was poorly constructed and appeared to have been created by stockpiling randomly-sorted small stones originating from field clearance material. The boundary between Lahardane and Ballincolly townlands extends through an area in the south end of the proposed development site and comprises an overgrown earthen bank field boundary.

The desktop study indicates that the lands within the study area have been used as tillage farmland since at least the 19th century (Lewis 1837) and the consulted aerial images show consistent ploughing activity within the proposed development site in recent decades. An inspection of the ploughsoil surface indicated that upturned natural glacial till material, comprising purplish subsoil and very frequent sandstone fragments, was present on the ground surface, indicating that this ongoing ploughing activity had extended down into the surface of the natural subsoil. There were occasional inclusions of early modern pottery (19th/20th century), farm machinery parts, bottle shards, plastics and tobacco pipe fragments noted on the ground surface. There were no watercourses observed within the

site. The 25-inch OS map (1900) shows well feature in the northeast corner of Field 8 and a small stream shown extending from a possible spring in the south end of the same field. These were not visible during the inspection and it is possible that they were diverted by land drains during 20th century land improvement works.

The nearest recorded archaeological site to the boundary of the proposed development site is a levelled ringfort (CO063-114----) located 120m to the west. The field containing this levelled monument was visually inspected from the proposed development site and no surface traces were evident.

No visible surface traces of any potential unrecorded archaeological sites, such as partially levelled earthworks or burnt spreads, were noted during the inspection of the proposed development site.

11.4 Conclusions

There are no recorded archaeological sites located within the proposed development site, or within 120m of its boundary, while there are five examples located within 300m of the site boundary (Figure 11.5). These comprise a levelled ringfort (CO063-114----) and the recorded site of an underground souterrain (CO063-115----) in lands to the west and three levelled burnt spreads in the lands to the south (CO074-131----, CO074-132---- and CO074-172----). None of these sites are visible from the proposed development site.

No potential archaeological sites were noted within the proposed development site during the desktop study and site inspections. However, archaeological sites of the prehistoric and medieval periods typically contained a variety of timber-built structures and associated features that leave no above ground traces but the potential exists for their remains, and associated deposits and artefacts, to survive beneath the ground surface. While the extensive ploughing activity within the proposed development site may have negatively impacted on any unrecorded, sub-surface archaeological features within the fields, the potential exists for the survival of such features within the site.

The Record of Protected Structures and the NIAH do not list any structures located within 600m of the proposed development site and there are no buildings of any date located within the site boundary.

The earthen field bank which forms the boundary between Lahardane and Ballincolly townlands extends through an area in the south end of the proposed development site (see Figure 11.3) and is deemed to be of low cultural heritage significance.

Figure 11.5 Recorded archaeological sites located within 300m of boundary of proposed development (approx. extent indicated with blue line)



11.5 Predicted Impacts

11.5.1 Do-Nothing Scenario

A 'Do Nothing Scenario' will see the continued preservation of recorded and potential cultural heritage features within the study area.

11.5.2 Construction Phase

There are no recorded archaeological monuments or sites located within the proposed development site and the nearest recorded example is a levelled ringfort (CO063-114---) located 120m to the west. The proposed development will, therefore, have no predicted impact on the known archaeological resource.

While there was no evidence for the presence of unrecorded archaeological features within the proposed development area identified during the desktop study and site inspection, which noted extensive ploughing disturbance throughout the site, the potential for the survival of unrecorded, sub-surface archaeological features cannot be discounted. As the existence, nature and extent of any such unrecorded sub-surface archaeological features are unknown; the levels of potential development impacts cannot be accurately quantified. However, it is likely that the ground works required for housing construction would have a permanent, direct, negative effect on any sub-surface archaeological features that may exist within the site.

There are no designated architectural heritage sites, or buildings of any date, located within the proposed development site and the nearest recorded example is a church listed in the NIAH (ref. 20859002) located 610m to the southwest. The proposed development will, therefore, have a no predicted impact on the architectural heritage resource.

The boundary between Lahardane and Ballincolly townlands comprises an earthen field bank which extends along the north and east sides of Field 10 within the interior of the proposed development site. This feature then forms the southern boundary of the proposed development in the area extending to the west. The section of this boundary within Field 10 will be removed as part of the proposed development while the section to the west will be retained. This field bank is deemed to be of low cultural heritage significance and the removal of the section bounding Field 10 will result in a permanent, direct, slight, negative effect on this feature.

11.5.3 Operational Phase

There are no recorded archaeological sites or monuments within the boundary of the proposed development and the nearest recorded example is a levelled ringfort (CO063-114-- --) located 120m to the west. There will, therefore, be no adverse impact on the setting of any recorded archaeological sites by the proposed development. There are no architectural heritage structures located within, or adjacent to, the proposed development site whose settings would be affected by the proposed development. Following the successful implementation of archaeological mitigation measures it is predicted that no operational phase impacts will arise in relation to the cultural heritage resource.

11.6 Cumulative Impacts

A review of a number of developments within the surrounding lands was undertaken. This revealed one approved housing development within Ballincroig townland, approx. 250m to

the west of the proposed development site, which contains two archaeological monuments located within the study area: Standing Stone CO063-072---- and Souterrain CO063-115---- (Cork County Council Planning ref. 17/06781). These monuments will be preserved within buffer zones and no unrecorded archaeological features were identified and during a programme of archaeological investigations within the remainder of that development site (Purcell 2018).

There are no recorded archaeological sites or architectural heritage structures within a proposed development site, comprising 20 houses, in Banduff townland which is located approx. 800m to the southeast of the subject site (Cork County Council ref. 19/5326). There are also no recorded archaeological sites or architectural heritage sites at the location of a LIDL development in an area approx. 650m to the south of the proposed development site (Cork County Council ref. 16/5477). The Excavation Database descriptions of archaeological investigations undertaken to comply with planning conditions within proposed development sites in green field locations within lands extending to the Blackpool area to the west and the Glanmire area to the east were reviewed and nothing of archaeological significance was uncovered within the subject sites. This included a pre-development programme of geophysical survey and test trenching investigations which was undertaken in 2018 to comply with ABP conditions (ref. 180403) for a housing development at Ballinglanna, Glanmire (Cummins 2018).

The proposed development is located within the Ballyvolane Urban Expansion Area as outlined in the *Cobh Municipal District Local Area Plan (2017)*. This LAP was subject to Strategic Environmental Assessment (SEA) at each stage of the plan making process which would have included consideration of the archaeological and architectural heritage resources. The proposed development will increase the potential for the development of other lands within the area in time due to the provision of the distributor road and the Irish Water pumping station. Any proposed developments in the area will be subject to separate planning applications in the future that will include any site specific archaeological, architectural heritage and cultural heritage assessments (including mitigation) that a planning authority may require.

Given the absence of any predicted impacts on known archaeological sites or architectural heritage sites as part of the proposed development in combination with the adoption of appropriate mitigation measures (see Section 11.8), it is concluded that the proposed development will not contribute to any likely cumulative impacts on the cultural heritage resource.

11.7 Human Health

There are no predicted risks to human health associated with potential impacts to the cultural heritage resource.

11.8 Mitigation Measures

Archaeology

Given the scale and extent of the proposed development within an undeveloped area of farmland, a programme of pre-development licensed archaeological investigations, to comprise a geophysical survey followed by archaeological test trenching, will be undertaken across the proposed development site. It is noted that the Cork City Council report to An Bord Pleanála in relation to the proposed development stated that these mitigation measures were acceptable. The test trenching will include an investigation of the section of the

boundary between Lahardane and Ballincolly townlands which extends into the south end of the proposed development site. In the event that any sub-surface archaeological deposits, features or artefacts are identified during these site investigations they will be recorded and cordoned off while the Planning Authority and the National Monuments Service are consulted to determine any further mitigation measures in advance of commencement of the construction phase. Any required mitigation measures will be enacted prior to and during the construction phase and no mitigation measures during the operational phase are envisioned. The above approach has been agreed with the Local Authorities given the lack of any recorded archaeological features on site.

Architectural Heritage

There are no Protected Structures or NIAH structures located within the proposed development site or within 600m of its boundary and there were no internal buildings of any date noted during the site inspection. It is, therefore, concluded that no mitigation measures for the architectural heritage resource are required in the construction and operational phases of the proposed development.

11.9 Worst Case Scenario

If the proposed development were to proceed without the implementation of the archaeological mitigation measures outlined in Section 11.8 then construction works could potentially have direct negative impacts on any unrecorded, sub-surface archaeological features that may exist within the site.

11.10 Residual (Predicted) Impacts

The proposed mitigation measures will provide for either the avoidance of the cultural heritage resource or the proper and adequate recording of this resource (including currently unknown archaeological features). As a result, there will be no predicted residual impacts on the cultural heritage resource following the construction phase.

11.11 Monitoring

There are a number of obligatory processes to be undertaken as part of applications to the National Monuments Service (NMS) for the licences which are required to undertake geophysical surveys and archaeological test trench excavations, and these will allow for monitoring of the successful implementation of mitigation measures. Method statements detailing the proposed strategy for all pre-construction site investigations will accompany the licence applications and these will clearly detail the extent of works and outline the consultation process to be enacted to determine further required mitigation measures in the event that any archaeological features are identified. Reports on the site investigations will be submitted to the NMS and the planning authority and will detail the results of all site investigations in written, drawn and photographic formats.

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