

## 12. CULTURAL HERITAGE

### 12.1 Introduction

This archaeological and cultural heritage chapter was prepared by Dominic Delany & Associates (DDA). It presents the results of an archaeological and cultural heritage impact assessment for the proposed East Bearna SHD at Trusky West, Co. Galway. The Proposed Development comprises the construction of 121 no. residential units, creche and all associated development works together with a public linear park along the Trusky Stream at Trusky East, Trusky West, Freeport, Ahaglugger, Bearna, Co. Galway.

The purpose of this chapter is to assess the potential effects of the Proposed Development on the surrounding archaeological, architectural and cultural heritage landscape. This chapter of the EIAR has been completed in accordance with the guidance set out in Chapter 1. The assessment is based on both a desktop review of the available cultural heritage and archaeological data and a comprehensive programme of field walking of the study area that was carried out on 24<sup>th</sup> and 31<sup>st</sup> August 2020.

The report amalgamates desk-based research and the results of field walking to identify areas of archaeological/architectural/cultural significance or potential, likely to be impacted by the Proposed Development. A description of the potential impacts is presented and mitigation measures are recommended where appropriate. The potential visual impact of the proposed development on recorded monuments is also assessed.

#### 12.1.1 Statement of Authority

Dominic Delany BA MIAI graduated from University College Galway in 1986 with a BA (honours) degree in archaeology and history. He is licensed to carry out archaeological excavations in Ireland since 1989 and has over 30 years of experience in the provision of archaeology and cultural heritage services to public and private sector clients. Dominic Delany & Associates was established in 2002 and the company has demonstrated its ability to provide mitigation to developments through management and coordination of projects from pre-planning assessment stage to archaeological resolution of sites. Dominic Delany has undertaken archaeological and cultural assessments and/or carried out monitoring programmes for a number of wind farm developments in the general area including the built Leitir Peic, Cnoc an Lochá and Leitir Gungaid wind farms located between 5km and 10km northwest of the Proposed Development.

### 12.2 Receiving Environment

#### 12.2.1 Planning Background

There have been 2 no. previous SHD applications on lands within the site boundary of the Proposed Development. Planning Reference ABP-300009-17 was refused by An Bord Pleanála due to concerns relating to density and housing mix type. Planning Reference ABP-302216-18 was granted permission by An Board Pleanála but this was subsequently quashed by the High Court as the proposed development was found to contravene the Galway County Development Plan 2015-2021.

#### 12.2.2 Proposed Development

The Proposed Development comprises the demolition of existing outbuildings, construction of 121 no. residential units, development of a crèche facility and associated outdoor play areas and parking, provision of a footpath connectivity link along the L1321, provision of a public linear park along the

Trusky Stream and all associated site development works at Trusky East, Trusky West, Freeport, Ahaglugger and Bearna, Co. Galway. A full description of the Proposed Development is provided in Chapter 4 of this EIAR.

All elements of the overall project have been assessed as part of this EIAR.

### 12.2.3 Site Location and Topography

The application site is located in Bearna, a coastal village, approximately 6 kilometers to the west of Galway City. The application site is situated in the townlands of Trusky East, Trusky West, Freeport and Ahaglugger, Bearna, Co. Galway. The site is accessed via an existing residential development ‘Cnoc Fraoigh’ at Trusky East. The application site measures approximately 5.38 hectares in area with a net site area of 3.47 hectares which refers to the lands zoned for residential development.

To the west of the site is the existing development of Cnoc Fraoigh which connects the site to the Moycullen Road linking to the village and the R336 Galway City to Spiddal Road. A series of ribbon developments to the north of Cnoc Fraoigh bound the site on the northwest and the remaining lands to the north and east are agricultural lands. To the south are lands zoned ‘Open Space/Recreation & Amenity’. The immediate vicinity consists of primarily suburban single family housing developments with the nucleus of the village of Bearna located 0.45km southwest of the proposed development.

The site is currently formed of scrub and rough agricultural grazing and the lands are generally bound to the north and south by stone walls. The application site incorporates existing features of significance which are being incorporated into the proposed scheme. The western boundary is generally defined by a 2-metre-high block wall to the rear of the existing dwellings at Cnoc Fraoigh and to the northwest by native stone walls forming the townland boundary between Trusky East and Trusky West. The Trusky Stream runs in a north-south direction to the east of the site.

The general topography of the site is one of marginal agricultural land with occasional rock outcrop and some lower-lying wet land along the bank of the Trusky Stream in the east. The site displays a general slope from north (+24m OD) to south (+14.5m OD).

## 12.3 Statutory Context

### 12.3.1 Current Legislation

Archaeological monuments are safeguarded through national and international policy, which is designed to secure the protection of the cultural heritage resource. This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention). This was ratified by Ireland in 1997.

Both the National Monuments Acts 1930-2004 and the relevant provisions of the Cultural Institution Act 1997 are the primary means of ensuring protection of archaeological monuments, the latter of which includes all man-made structures of whatever form or date. There are a number of provisions under the National Monuments Acts which ensure protection of the archaeological resource. These include the Register of Historic Monuments (1997 Act) which means that any interference to a monument is illegal under that act. All registered monuments are included on the Record of Monuments and Places (RMP).

The Record of Monuments and Places was established under Section 12 (1) of the National Monuments (Amendment) Act 1994 and consists of a list of known archaeological monuments and accompanying maps. The Record of Monuments and Places affords some protection to the monuments entered therein. Section 12 (3) of the 1994 Amendment Act states that any person proposing to carry out work at or in relation to a recorded monument must give notice in writing to the Minister (Culture, Heritage and the Gaeltacht) and shall not commence the works for a period of two months after having given the

notice. All proposed works, therefore, within or around any archaeological monuments are subject to statutory protection and legislation (National Monuments Acts 1930-2004).

Under the Heritage Act 1995 (as amended) architectural heritage is defined to include *‘all structures, buildings, traditional and designed, and groups of buildings including street-scapes and urban vistas, which are of historical, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents...’*. A heritage building is also defined to include *‘any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political or religious history of the place where it is situated or of the country or generally’*.

### 12.3.2 Granada Convention

The Council of Europe, in Article 2 of the 1985 Convention for the protection of the architectural heritage of Europe (Granada Convention), states that *‘for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member state will undertake to maintain inventories of that architectural heritage’*. The Granada Convention emphasises the importance of intervention in underpinning conservation policies.

The NIAH was established in 1990 to fulfil Ireland’s obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland. Article 1 of the Granada Convention establishes the parameters of this work by defining ‘architectural heritage’ under three broad categories of Monuments, Groups of Buildings, and Sites:

- › Monument: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;
- › Groups of Buildings: homogenous groups of urban or rural buildings conspicuous historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units;
- › Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable, and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.

The Council of Europe’s definition of architectural heritage allows for the inclusion of structures, groups of structures and sites which are considered to be of significance in their own right, or which are of significance in their local context and environment. The NIAH believes it is important to consider the architectural heritage as encompassing a wide variety of structures and sites as diverse as post boxes, grand country houses, mill complexes and vernacular farmhouses.

### 12.3.3 Statutory Consultation

The Department of Culture, Heritage and the Gaeltacht were issued with a scoping document on 22<sup>nd</sup> July 2020. In addition, the submission of the Department of Culture, Heritage and the Gaeltacht from the 3<sup>rd</sup> September 2018 (Appendix 12-1 of this ELAR) in relation to a previous development on this site was reviewed and has been taken into account in the assessment undertaken.

### 12.3.4 Galway County Development Plan 2017-2023

The Galway County Development Plan 2015-2021 outlines a number of objectives relating to archaeological, architectural and cultural heritage.

## Archaeological Heritage

The plan has adopted policies ARC1-ARC6 and objectives ARC1-ARC7 for the protection of archaeological heritage. The policies seek to:

*ARC 1: Support and promote the conservation and appropriate management and enhancement of the county's archaeological heritage*

*ARC 2: Seek to promote awareness and access to archaeological sites in the county where appropriate*

*ARC 3: Consult with the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht in relation to proposed developments adjoining archaeological sites*

*ARC 4: Support the preservation, conservation and management of archaeological sites and monuments, together with the settings of these monuments*

*ARC 5: Ensure the protection and sympathetic enhancement of archaeological sites*

*ARC 6: Facilitate where possible the identification of important archaeological landscapes in the county*

## Architectural Heritage

Development Plan policies relating to architectural heritage include:

*AH 1: Protect the architectural heritage of County Galway which is a unique and special resource*

## Vernacular Architecture

Development Plan objectives relating to vernacular architecture include:

*AH 6: Recognise the importance of the contribution of vernacular architecture to the character of a place and ensure the protection, retention and appropriate revitalisation and use of the vernacular built heritage*

## Record of Protected Structures

A record of Protected Structures (RPS) is included as an appendix in County Development Plan. Objectives include:

*AH 2: Ensure the protection and sympathetic enhancement of structures included and proposed for inclusion in the Record of Protected Structures (RPS) that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, together with the integrity of their character and setting*

## Local Landscape and Place Assessment

Development Plan objectives relating to local landscape and place assessment include:

*AH9: To support proposals from local communities in analysing the character of their place and promoting its regeneration for their own use and enjoyment and that of visitors to the area*

## The Irish Language

It is the policy of Galway County Council to preserve and promote An Ghaeltacht in its planning process policies.

*G 3: Recognises the economic, social and cultural importance of Irish in the Gaeltacht and throughout the county*

The proposed development is within a Gaeltacht area.

## 12.4 Methodology

The assessment of the archaeology, architecture and cultural heritage of the area of the Proposed Development included desk-based research and field inspection. A desk-based study of the Proposed Development site was undertaken in order to assess the archaeological, architectural and cultural heritage potential of the area and to identify constraints or features of archaeological/cultural heritage significance within or near to the site of the Proposed Development. Field walking of the study area was undertaken on 24<sup>th</sup> and 31<sup>st</sup> August 2020 to determine if previously unrecorded archaeological, architectural or cultural heritage features were located in the area of the Proposed Development and to assess any potential impacts on known or previously unrecorded sites or monuments within the EIAR study area.

### 12.4.1 Desktop Assessment

A primary cartographic source and base-line data for the archaeological assessment was the consultation of the Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for County Galway. All known recorded archaeological monuments are indicated on six inch Ordnance Survey (OS) maps and are listed in this record. The first edition OS six inch (1838-9) and twenty five inch (1890-1898) maps for the area were consulted. The site of the Proposed Development was inspected by Dominic Delany on 24<sup>th</sup> and 31<sup>st</sup> August 2020. A photographic record was made of the development area.

The following sources were consulted for this assessment report:

- > The Sites and Monuments Record (SMR).
- > The Record of Monuments and Places (RMP).
- > First edition Ordnance Survey maps ([www.osi.ie](http://www.osi.ie)).
- > Third edition Ordnance Survey map (RMP maps for Co. Galway).
- > Down Survey maps for County Galway ([www.downsurvey.tcd.ie](http://www.downsurvey.tcd.ie)).
- > Aerial images ([www.osi.ie](http://www.osi.ie)).
- > The Topographical Files of the National Museum of Ireland.
- > Excavations Bulletins ([www.excavations.ie](http://www.excavations.ie)).
- > Galway County Development Plan 2015-2021, Galway County Council.
- > Galway County Heritage and Biodiversity Plan 2017-2022, Galway County Council.
- > National Inventory of Architectural Heritage (NIAH).

### 12.4.2 Record of Monuments and Places

A primary cartographic source and base-line data for the archaeological assessment was the consultation of the SMR and RMP for County Galway. All known recorded archaeological monuments are indicated on six inch OS maps and are listed in this record. The SMR/RMP is not a complete record of all monuments as newly discovered sites may not appear in the list or accompanying maps. In conjunction with the consultation of the SMR and RMP the electronic database of recorded monuments and SMR's which may be accessed at [www.archaeology.ie](http://www.archaeology.ie) was also consulted. There are

no recorded monuments within the study area. There are thirteen recorded monuments located within 2km of the study area (see Section 12.5.1.1.5).

### 12.4.3 Cartographic Sources and Aerial Photography

#### Down Survey map 1656-8

The Down Survey undertaken by William Petty between 1656 and 1658 was a systematic mapping of Ireland for the purpose of administering the Cromwellian Confiscations. It was based on the earlier Civil Survey and recorded land ownership and features by townland. No useful information was derived from the research as there is no map for the Barony of Moycullen.

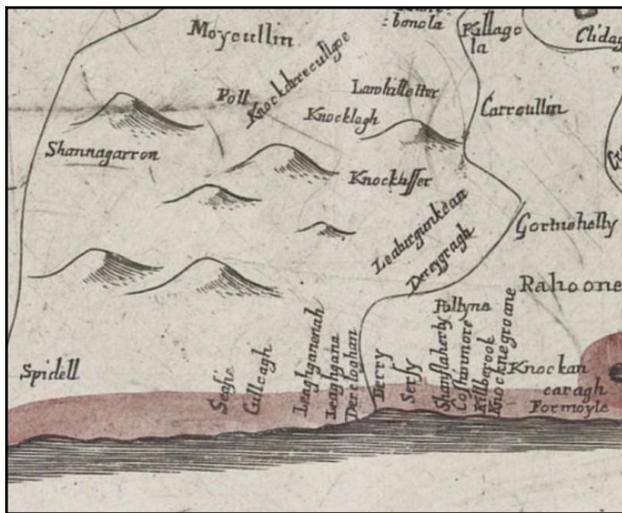


Figure 12.1 Down Survey Map of County Galway showing coastline between Galway and Spiddal with upland to the north

#### Ordnance Survey first edition six inch map 1838-9

Ireland was included in the British Ordnance Survey beginning in the 1820's and offers a unique record of the country before the changes wrought by the Great Famine of the 1840's. The first edition OS six inch map 1838-9 shows the site of the Proposed Development as farmed lands with a road network servicing two small settlement clusters straddling the north boundary of the development site. The west cluster comprises of eleven buildings (cabins and outhouses) and the east cluster comprises of six buildings with two outliers to the east and one larger L-shaped building to the south. Two roads, located either side of the 'Trusky Stream' extend northwards from the coast road to service the settlement clusters. The road on the east crosses the stream in the north of the site and a spur connects it with the road servicing the settlement cluster to the west.

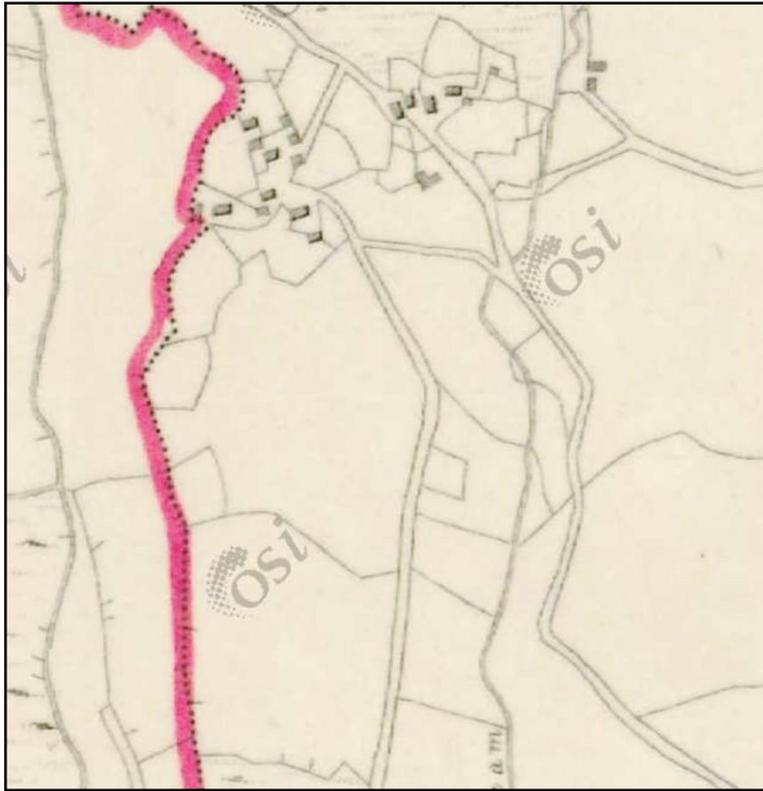


Figure 12.2 Ordnance survey map 1838-9 showing development lands between townland boundary (in red) and Trusky Stream  
 Ordnance Survey Ireland Licence No. EN 0076820

### Ordnance Survey first edition twenty five inch map 1890-98

The twenty five inch OS map shows an intensification of land enclosure with the large fields of the earlier map now divided into a network of smaller fields. The fields are considerably smaller in the south of the site where the terrain is indicated as one of rocky ground. The settlement clusters in the north have contracted considerably with just six buildings in the west and three in the east. The buildings in the west are indicated in outline only suggesting they have fallen into disuse, at least as habitable dwellings. Two of the buildings in the east cluster are shaded suggesting they are still in use. The larger of the two buildings is likely to be a residence and the smaller an associated outbuilding. The road on the west side of the stream is only partly indicated suggesting it too has fallen into disuse.

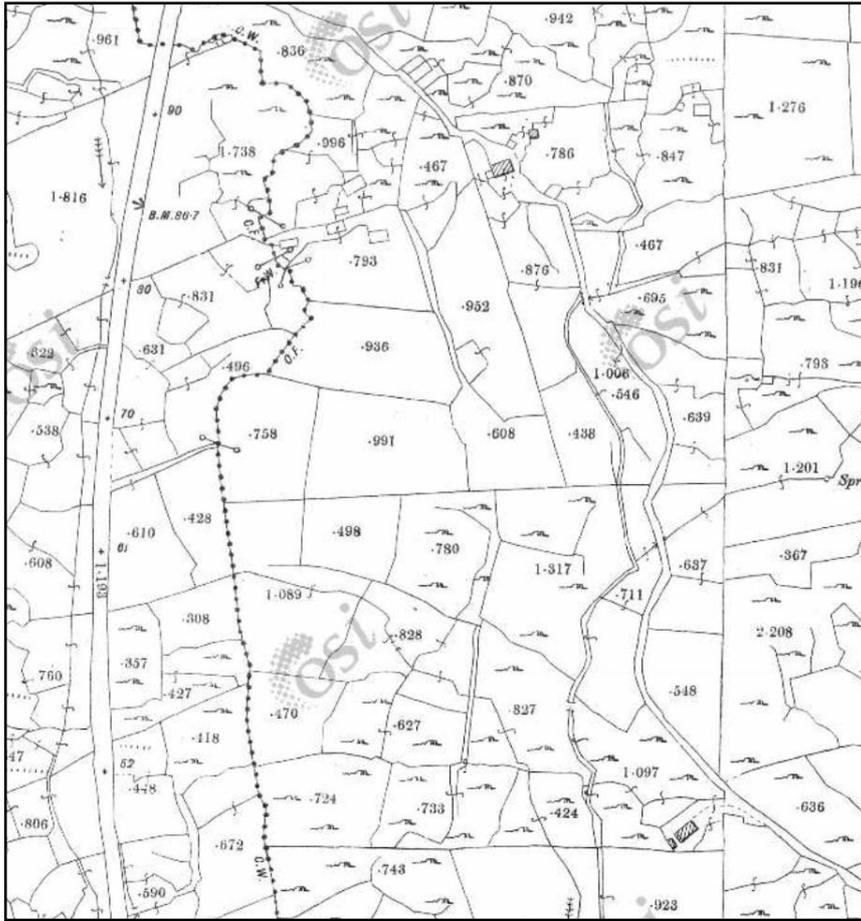


Figure 12.3 Ordnance survey map 1890-98 showing development lands  
 Ordnance Survey Ireland Licence No. EN 0076820

### Aerial Images

A series of aerial images of the site from 1995-2013 were examined on the ordnance survey website [www.ois.ie](http://www.ois.ie). The images pre-dating 2000 show the site much as it appears on the 1890-98 OS map with the lands divided into a network of small fields. The later images show the ‘Cnoc Fraoigh’ development under construction, and subsequently built, with associated construction-related activity in the proposed development site immediately east of the housing. The wastewater treatment system in the south extent of the proposed development site is also visible on the later images. One building in the north extent of the development site is clearly visible on all aerial images. This correlates with the larger of the two shaded buildings indicated on the 1890-98 map. No new potential archaeological sites were identified from examination of the series of aerial images.

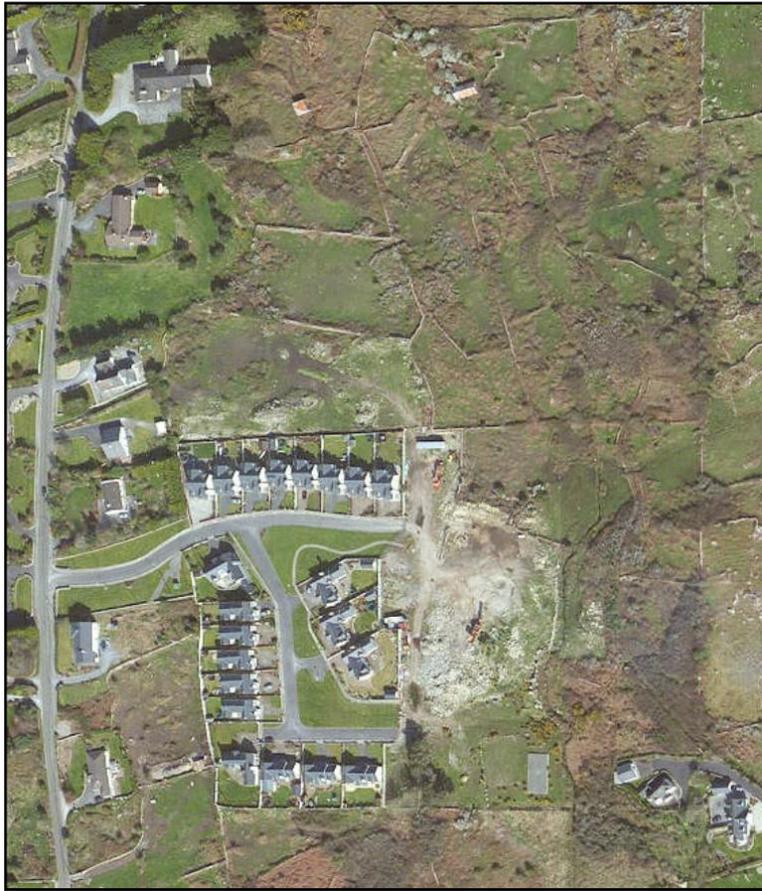


Figure 12.4 Aerial image 2011-2013 showing development lands to north and east of ‘Cnoc Fraoigh’ development

#### 12.4.4 Topographical Files – National Museum of Ireland

Details relating to finds of archaeological material and monuments in numerous townlands in the county are contained in the topographical files held in the National Museum of Ireland. These files were consulted in order to establish if any finds had been recovered from townlands within the study area. The townlands Trusky East, Trusky West, Ahalugger, Seapoint, Freeport, Knockaunacarragh, Lenarevagh, Ballard East, Ballard West and Cloghscoltia were consulted. The only find recorded is a dugout logboat from Freeport (NMI Registration 2014:263).

#### 12.4.5 Record of Protected Structures (RPS) Galway County Development Plan 2015-2021

The County Development Plan was consulted for the schedule of buildings (Record of Protected Structures) and items of cultural, historical or archaeological interest which may be affected by the Proposed Development. The townlands within and surrounding the study area were searched in the list of protected structures in the development plan to assess the proximity and potential impact of the Proposed Development on such structures. The development plan also outlines policies and objectives relating to the protection of the archaeological, historical and architectural heritage landscape of County Galway (see Section 12.3.4). Protected structures/buildings within 2km of the Proposed Development are included here for the purposes of assessing impact on setting in the wider landscape.

Buildings/structures on the Record of Protected Structures located within 2km of the proposal are Barna House, Barna (RPS No. 744) 1450m east of the proposed development site boundary, Lynch Monument, Knockaunacarragh (RPS No. 747) 1025m east, Thatched cottage, Seapoint (RPS No. 748) 450m southwest, Father Griffin Monument, Barna Pier (RPS No. 886) 500m south, and Cloghscoltia (RPS No. 4018) 1350m north.

## 12.4.6 National Inventory of Architectural Heritage (NIAH)

This source lists some of the architecturally significant buildings and items of cultural heritage and is compiled on a county by county basis by the Department of Culture Heritage and the Gaeltacht. The NIAH database was consulted for entries within 2km of the study area. The National Inventory of Architectural Heritage is a state initiative under the administration of the Department of Culture Heritage and the Gaeltacht and established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

The purpose of the NIAH is to identify, record and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for the Department of Culture Heritage and the Gaeltacht to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS). The published surveys are a source of information on the selected structures for relevant planning authorities. They are also a research and educational resource. It is hoped that the work of the NIAH will increase public awareness and appreciation of Ireland's architectural heritage.

### Building Surveys

Structures within 2km of the Proposed Development included on the National Inventory of Architectural Heritage are as follows:

Name	Father Griffin Monument
Reg. No.	30409301
Date	1920-30
Townland	Cloghscoltia
Co-ordinates	122815, 224846
Distance	1250m

Name	Ahalugger, Barna
Reg. No.	30409305
Date	1780-1820
Townland	Ahalugger
Co-ordinates	123059, 222875
Distance	430m

Name	Barna Quay, Freeport, Barna
Reg. No.	30409307
Date	1810-1830
Townland	Freeport
Co-ordinates	123304, 222634
Distance	500m

Name	Lynch Mausoleum, Knockaunacarragh
Reg. No.	30409308
Date	1855-1860
Townland	Knockaunacarragh
Co-ordinates	124388, 223410
Distance	1000m

Name	Barna House, Barna
Reg. No.	30409310
Date	1875-1880

Townland        Barna  
 Co-ordinates    124800, 223698  
 Distance        1500m

### Garden Surveys

The NIAH has begun a process of recording Irelands designed landscapes, specifically demesnes which appeared on the first edition ordnance survey six inch maps. The assigned ‘feature richness index’ is an assessment of surviving original features and is measured between 1 and 5. The objective of the NIAH Garden Survey is to begin a process of understanding the extent of Ireland’s historic gardens and designed landscape. Sites were identified using the first edition ordnance survey maps. These were then compared with current aerial photography to assess the level of survival and change. The assessment is not an indication of the sites heritage importance. Fieldwork is now in progress to compile more accurate data and site assessments. The results will be added to the NIAH website as this work progresses. There are no recorded designed landscapes within or in the vicinity of the Proposed Development.

## 12.4.7 Excavations Bulletins

Excavations’ Bulletins is an annual account of all archaeological investigations carried out under licence on the island of Ireland. The database is available online at [www.excavations.ie](http://www.excavations.ie) and includes entries from 1985 to the present. This database was consulted as part of the desktop research for this assessment to establish if any archaeological investigations had been carried out within or near to the area of the Proposed Development. There are nine entries relating to investigations in the vicinity of Barna village:

#### Licence No. 19E0015

Excavations Ref. 2019:031

Townland        Troscaigh Thoir (Trusky East)

ITM                523271, 723488

Site Type        No archaeology found

Author            Anne Carey

Description:    Pre-development testing was carried out on the site of the proposed SHD at Troscaigh Thiar, Barna, Co. Galway in January/February 2019. Nineteen test trenches were excavated to undisturbed natural. The stratigraphy comprised of a thin sod/topsoil over gritty sand and granite bedrock. No archaeology was found.

#### Licence No. 16E0249

Excavations Ref. 2016:114 & 2016:849

Townland        Seapoint

ITM                523062, 722849

Site Type        No archaeology found

Author            Anne Carey

Description:    Pre-development testing was carried out on the site of a proposed housing development west of the graveyard in Barna village in May 2016 (Ref. 2016:114). Ground conditions varied from rocky ground in the east of the site falling away to boggy ground in the west. A large amount of modern infill was recorded in the lowlying ground at the southeast extent of the site. No archaeology was found.

#### Licence No. 14E186

Excavations Ref. 2014:155

Townland        Freeport

ITM                523196, 722794

Site Type        No archaeology found

Author            Anne Carey

Description: Pre-development testing was carried out on the site of four detached houses in Barna village. The site is bordered to the east by a narrow watercourse, Trusky Stream, the northern limit of which is believed to have been the site of a slipway or quay, known as *Poll Mór*. Eleven test trenches were excavated. No archaeology was found.

Licence No. 08E0387

Excavations Ref. 2009:386

Townland Seapoint

ITM 522913, 722750

Site Type No archaeology found

Author Declan Moore

Description: Archaeological monitoring of the excavation of pipeline trenches for the Bearna Sewerage Scheme was carried out in 2008. No archaeology was found.

Licence No. 06E1151 ext

Excavations Ref. 2008:519

Townland Seapoint

ITM 522906, 722731

Site Type Graveyard

Author Tamlyn O' Driscoll

Description: Archaeological excavation was carried out in advance of a sewerage pipeline development at Seapoint in June/August 2008 and January 2009. The excavation followed the discovery of human remains during pre-development testing within an existing road adjacent to Bearna Graveyard (GA093-020) in December 2006 (Ref. 2006:839). A total of 30 skeletons were excavated.

Licence No. 06E1151

Excavations Ref. 2006:839

Townland Seapoint

ITM 522913, 722750

Site Type Burials

Author Declan Moore

Description: Pre-development testing was carried out in advance of a sewerage pipeline development at Seapoint in December 2006. Three burials and one possible burial were uncovered within the road adjacent to Bearna Graveyard (GA093-020). Full archaeological excavation was recommended (see 2008:519 above).

Licence No. 04E1636

Excavations Ref. 2005:654, 2004:0669

Townland Seapoint

ITM 522913, 722750

Site Type No archaeology found

Author Anne Carey

Description: Pre-development testing was carried out on the site of a retail and residential development at Seapoint in December 2004. No archaeology was found during testing (2004:0669) or during subsequent monitoring of excavations in March 2005 (2005:654).

## 12.4.8 Fieldwork

The Proposed Development site was inspected by Dominic Delany on 24<sup>th</sup> and 31<sup>st</sup> August 2020. The inspection consisted of an extensive walkover examination of the site and an assessment of any recorded monuments, architectural, built or cultural heritage items. A photographic record of the inspection was made (see Sections 12.5.2.4 & 12.5.2.5).

### 12.4.8.1 Limitations Associated with Fieldwork

No significant limitations were encountered during field survey.

### 12.4.9 Assessment of Likely Significant Effects

The likely effects on the existing archaeological and cultural heritage environment are assessed using the criteria as set out in the guidance referred to in chapter 1, in particular the Draft revised guidelines on the information to be contained in Environmental Impact Statements (EPA, 2017). The following terminology is used when describing the likely effects of the Proposed Development from a Cultural Heritage Perspective.

#### 12.4.9.1 Types of Impact

Direct impacts arise where an archaeological heritage feature or site is physically located within the footprint of the Proposed Development whereby the removal of part or all of the feature or site is thus required.

Indirect impacts may arise as a result of subsurface works undertaken outside the footprint of the development, secondary environmental change such as a reduction in water levels and visual impacts.

Cumulative impacts arise when the addition of many impacts create a large more significant impact.

Residual impacts are the degree of environmental changes that will occur after the proposed mitigation measures have been implemented.

#### 12.4.9.2 Magnitude of Effects (Significance)

This section of the EIAR has been completed in accordance with the guidance set out in Chapter 1. The assessment uses standard terminology to describe the likely significant effects associated with the proposed development. Further information on the classification of effects used in this assessment is presented in Section 1.7.2 of this EIAR.

**Profound:** Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise where an archaeological site is completely and irreversibly destroyed.

**Very Significant:** An effect which by its character, magnitude, duration or intensity significantly alters most of the sensitive aspect of the environment.

**Significant:** An effect which by its character, magnitude, duration or intensity alters most of the sensitive aspect of the environment. An effect like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about an archaeological site.

**Moderate:** A moderate effect arises where a change to an archaeological site is proposed which though noticeable, is not such that the integrity of the site is compromised, and which is reversible. This arises where an archaeological site can be incorporated into a modern-day development without damage and that all procedures used to facilitate this are reversible.

**Slight:** An effect which causes changes in the character of the environment which are not high or very high and do not directly impact or affect an archaeological site.

**Imperceptible:** An effect on an archaeological site capable of measurement but without noticeable consequences.

## 12.5 Description of Existing Environment

### 12.5.1 Archaeological Heritage

For the purposes of this report archaeological heritage includes

- UNESCO World Heritage Sites.
- Archaeological Landscapes or Areas of High Amenity (County Development Plan).
- National Monuments (Ownership, Guardianship and Preservation Orders).
- Recorded Archaeological Monuments listed in the RMP/SMR.
- Newly discovered archaeological sites.
- Sites recorded in the Excavations Database.

#### 12.5.1.1 UNESCO World Heritage Sites

A World Heritage Site (WHS) is a property inscribed on the UNESCO World Heritage List because of its outstanding universal value. As these sites are categorised as being of international importance, WHS sites within 25km of the proposed development were considered for assessment. No monuments on the WHS list and tentative list are located within 25km of the proposed development ([www.worldheritageireland.ie](http://www.worldheritageireland.ie)).

#### 12.5.1.2 National Monuments

The term ‘*national monument*’ as defined in Section 2 of the National Monuments Act (1930) means 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*’. National Monuments in state care include those which are in the ownership or guardianship of the Minister for Culture Heritage and the Gaeltacht. Section 5 of the National Monuments Act (1930) allows owners of national monuments to appoint the Minister for Culture Heritage and the Gaeltacht or the relevant local authority as guardian of such monuments, subject to their consent. This means that in effect while the property of such a monument remains vested in the owner, its maintenance and upkeep are the responsibility of the state. Monuments are also protected by Preservation Orders, also National Monuments. As these monuments are categorised as being of National Importance, national monuments within 20km of the proposed development were assessed for effect on visual setting. National Monument within 20km of Proposed Development are included here for the purposes of assessing impact on setting in the wider landscape. A 20km buffer is an appropriate study area in terms of identifying impacts on national monuments in the wider landscape. There are three National Monuments located within 20km of the Proposed Development; National Monument No. 46 (Roscam Early Medieval Ecclesiastical Site), No. 470 (Aghanure Castle) & No. 609 (Merlinpark Castle).

National Monument Number 46 is an early medieval ecclesiastical site at Roscam located at the head of Oranmore Bay 4.5km east-southeast of Galway City Centre and 11km east of the Proposed Development.

National Monument No. 470 is a tower-house castle at Aghanure located on the west shore of Lough Corrib 3km southeast of Oughterard and 20km northwest of the Proposed Development

National Monument No. 609 is a tower-house castle at Merlinpark located within Merlinpark Woods 3.5km east-northeast of Galway City Centre and 10.4km east-northeast of the Proposed Development.

### 12.5.1.3 Recorded Archaeological Monuments located within development site boundary

There are no Recorded Monuments located within the proposed development site.

### 12.5.1.4 New Potential Archaeology Recorded within development site boundary

All areas proposed for development were examined by a walkover survey. No intrusive investigation was undertaken and the survey was limited to visual inspection only. No new potential archaeological features were noted within the study area boundary. It should be noted however that green field sites are regarded as areas of archaeological potential in terms of the occurrence of monuments and artefacts below the topsoil. In this regard while no new monuments were identified during the field inspection for this assessment, the potential still exists for the uncovering of subsurface archaeological material during the construction phase of the project. The potential effect is mitigated against (see below).

### 12.5.1.5 Recorded Archaeological Monuments within 2km of development site boundary

For the purpose of assessing effects on the setting of recorded monuments in the vicinity of the Proposed Development, all RMP sites within 2km of the study area are included here. A 2km buffer is an appropriate study area in terms of identifying impacts on recorded monuments in the wider landscape. The density of monuments in the area is low with just thirteen monuments located within 2km of the Proposed Development (GA093-009 is a redundant monument, having been identified through fieldwork as a sub-circular curving field boundary and not an archaeological monument).

Of the twelve recorded monuments, seven are post-medieval sites dating from the eighteenth and nineteenth centuries. These include two churches at Knockaunacarragh just over 1km east of Bearna village. The older church (GA093-003002) is probably a pre-emancipation church dating from the 1700's while its successor (GA093-015) is said to have been built about 1830. Both buildings are marked on the first edition ordnance survey map 1838-39, where the names 'R.C. Chapel' and 'Old R.C. Chapel' are appended. There are fragmentary remains of the older church but the later 'St. James Catholic Church', was demolished to make way for the existing 'Mary, Immaculate Queen Church' in the 1970's. A graveyard (GA093-003003) and holy well (GA093-003001) are recorded in the vicinity of the older church. There is no trace of a graveyard here and its inclusion in the Record of Monuments and Places stems from the Grand Jury Map 1819, which indicates a graveyard at this location. Other post-medieval monuments include a church at Newvillage (GA093-016), a graveyard at Rinn Na Mara (GA093-020) and a settlement cluster (GA093-006) straddling a number of townlands in the centre of Bearna village. The church at Newvillage (GA093-016) located c. 1km west of Bearna is marked on the 1890-1900 OS map but not on the 1838-9 OS map indicating it was a later nineteenth century structure. A modern dwelling now occupies the site of this church. The old graveyard at Rinn Na Mara in Bearna village (GA093-020) is marked on the 1838-9 ordnance survey map but there is nothing to suggest it is a burial ground of any great antiquity. The Archaeology Survey files contain no information regarding the recorded settlement cluster (GA093-010) in the centre of Bearna village but it presumably refers to the original settlement here in the late 18<sup>th</sup> or early 19<sup>th</sup> century. The cenotaph at Clogh Scoilte (GA093-006) located c. 1km to the north of the village is a monument erected about 1925 to commemorate Fr. Michael Griffin, a local priest who was murdered, reputedly by the Black and Tans, on 14<sup>th</sup> November 1920 during the Irish War of Independence 1919-21.

Of the five recorded monument pre-dating 1700, only two are extant. The monuments comprise a castle (GA093-002), holy well (GA093-003001) midden (GA093-007), ringfort/cashel (GA093-023) and field system (GA093-023001). Bearna Castle (GA093-002) was located on a site to the rear of Bearna House c. 1.5km east of Bearna village. Sited on the west bank of Bearna Stream where it flows into White Strand Bay, it was in existence in 1574 when it was in the possession of 'Owen Ohalorane'

(Nolan 1901, 115). Known as ‘Sean Chaislean Bheárna’, it appears to have been completely demolished by the early 19<sup>th</sup> century and only its site is indicated on ordnance survey maps. The ringfort/cashel (GA093-023) and field system (GA093-023001) were identified from ordnance survey maps and aerial images pre-dating 2005, where a circular enclosure (diam. *c.* 30m) with radiating field boundaries to the east is clearly visible. These possible monuments were removed during the course of a residential development at the site in 2004. The only extant pre-1700 recorded monument is the midden (GA093-007) at Derryloney 1.85km southeast of the development site. It is located close to the southeast end of a boulder cliff adjoining Silver Strand and exposed in section as a band of black material (L 4.6m; T *c.* 0.2m). It contains a large number of periwinkle shells with burnt stone and charcoal also in evidence. A much more extensive deposit, noted here by Keary (1965, 110-11) in the early 1960’s, consisted mainly of oysters, but he considered that it might be natural in origin. The holy well (GA093-003001) consists of a natural spring in a rock fissure at the east end of a small rectangular enclosure and its presence may be indicative of an older Christian foundation in this area. Indeed the site is reputed to have been a resting place of St. Enda on his way to the Aran Islands in the fifth century. Pilgrimages were regularly made to the well, particularly during the last Sunday in July, and it was the custom for departing pilgrims to throw pennies in the water. The well was purported to have beneficial effects for those suffering from eye and ear ailments.

The 13 monuments are included here for the purpose of establishing the archaeological context of the surrounding environs of the Proposed Development site. The monuments are listed in Table 12-1 with the distance of each monument to the proposed development site. The monument locations are indicated on Figure 12-5.

Table 12-1 RMP’s within 2km of the Proposed Development

RMP No.	ITM Ref	Townland	Classification	Distance (m)
GA093-002	524848, 723626	Bearna	Castle	1600m E
GA093-003001	524477, 723468	Bearna	Ritual site - holy well	1200m E
GA093-003002	524436, 723454	An Cnocán Carrach	Church	1150m E
GA093-003003	524446, 723458	An Cnocán Carrach	Graveyard	1150m E
GA093-006	522789, 724870	An Chloch Scoilte	Cenotaph	1250m N
GA093-007	525089, 722814	Derryloney	Midden	1850m SE
*GA093-009	521382, 723082	Na Foráí Maola Thiar	Redundant record	1800m W
GA093-010	523112, 722944	An Chéibh	Settlement cluster	370m S
GA093-015	524361, 723435	An Cnocán Carrach	Church	1000m E
GA093-016	522311, 722664	Newvillage	Church	1000m SW
GA093-020	523120, 722862	Rinn Na Mara	Graveyard	400m S

RMP No.	ITM Ref	Townland	Classification	Distance (m)
GA093-023	522703, 723156	Troscaigh Thiar	Ringfort - cashel	500m SW
GA093-023001	522754, 723170	Troscaigh Thiar	Field system	450m SW

\* This monument is a redundant record and should not be considered as constraint.

## 12.5.1.6 Archaeological and Historical Background

### The Prehistoric Period

#### Field Systems

Most of the millions of miles of field boundaries that cover Ireland are probably of 17<sup>th</sup>-19<sup>th</sup> century date. However the practice of enclosing and delimiting fields for agricultural and other purposes is an ancient one, dating back to Neolithic times (4000-2500 BC) (Caulfield 1978; Mitchell 1986). Depending on the size of the areas enclosed, the ground within them would have been used for a number of purposes, ranging from stock raising and plant husbandry to crop and fodder protection. For obvious reasons, traces of these ancient walls are now generally confined to marginal land and to the old ground surfaces beneath our blanket and raised bogs. These field boundaries come in a variety of forms; drystone, rubble and boulder built walls, earthen banks and ditches, and timber fences. A field system is recorded at *Troscaigh Thiar* (GA093-023001) 450m southwest of the Proposed Development. This monument is no longer extant.

#### Middens

A midden can be defined as an archaeological deposit of food refuse, generally comprised of the remains of edible molluscs. Middens usually survive as amorphous heaps of shells, as layers of shell exposed in section, or as eroded spreads of shell. Their distribution is predominantly coastal, often in areas of sand-dunes. Middens can vary widely in size, ranging from a single thin layer exposed in a scarp face to enormous mounds of shell, several metres in depth and extending over hundreds of metres. A small midden is recorded at Derryloney (GA093-007) 1850m southeast of the Proposed Development.

### Early Medieval Period

#### Ringforts, Rathes, Cashels

Ringforts are the most widely distributed and common monuments in the country. They can be referred to as caiseal, cathair, dún, lios and rath. Rath is the term applied to those with earthen banks while cashel is applicable to those constructed with stone banks. They tend to have a dispersed distribution, although some are occasionally located in pairs, or even joined together. Excavations have revealed that the ringfort was typically an early medieval (AD500-1100) settlement type although some have been shown to predate and postdate this period (Sweetman and O' Brien 1997, 24).

Ringforts generally comprise of a circular area enclosed by a single bank and external ditch (univallate). Bivallate and trivallate ringforts, i.e. those enclosed by double or triple rings of banks, are much less common. The number of banks and ditches enclosing these monuments is considered to reflect the status of the site, rather than the strengthening of its defences. In areas where there is little field stone, the banks are generally of earth, while in stony areas, the banks may be of stone, with either stone-cut ditches, or no ditch at all. Archaeological excavation has shown that the majority of ringforts functioned as enclosed farmsteads, built during the early medieval period. The enclosing elements would also have protected domestic livestock from natural predators such as wolves and foxes. Excavation within the interior of the monuments has traced the remains of circular and rectangular dwelling houses as well as smaller huts probably used to stall animals. According to Stout (1997) ringforts were *'not built to repel long sieges, or designed to annex territories and populations but rather than to repel the lightning cattle raids, which were endemic during the early medieval period in Ireland'*. A ringfort is recorded at *Troscaigh Thiar* (GA093-023) 500m southwest of the Proposed Development. This monument is no longer extant.

#### Holy Wells

Religious cults associated with water have a long history in Ireland, dating back to the later Bronze Age (1200 – 500 BC), if not before. Though holy wells may at first appear to be Christian monuments, much of the ritual, folklore and indeed the very preoccupation with water as a medium for supernatural cure displays strong pre-Christian elements. A holy well can simply be defined as any location where water



### Map Legend

- Site Boundary
- Recorded Monuments



Drawing Title  
**Recorded Monuments within 2km**

Project Title  
**Burkeway Barna SHD**

Drawn By <b>OM</b>	Checked By <b>TB</b>
Project No. <b>190450a</b>	Drawing No. <b>12.5</b>
Scale <b>1:25000</b>	Date <b>16.10.2020</b>



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is used as the focal point of supernatural divination, cure or devotion on a regular basis. The visible remains at any particular holy well can range widely, from an unadorned natural spring or tiny hollow in the bedrock to mortared stone well-chambers with steps, canopies and wall niches. Often associated are votive offerings (usually coins, small statues or everyday objects), specified trees or bushes, leachts (small flat-topped stone altars), small cairns, and sometimes archaeological objects (bullauns, cross-slabs and architectural fragments). Though some are known simply as holy wells, some are associated with a particular person, usually a recognised saint. The waters of most holy wells are invested with powers of divination or cure. Sometimes the cure is of a particular ailment – eye disease, warts or mental illness. Where it survives, the ritual connected with the visit to holy well can be quite complex. Such visits or pilgrimages are often focused on a pattern day, usually the anniversary of the saint to whom the well is dedicated.

A holy well is recorded at Bearna (GA093-003001) to the east of the study area. It is located on the east side of the old Galway-Bearna road directly opposite a church (GA093-003002). Named *Tobar Enda* on OS maps, correctly *Tobar Éinne*, the well consists of a natural spring in a rock fissure at the east end of a small modern rectangular enclosure. Some 1.5m to the south-southwest of it is a small stone cairn surmounted by a modern cross (O’Flanagan 1927a, vol. 1, 345).

## Late Medieval Period

### Castles

Tower houses were built in the 15th and 16th centuries as lordly residences by both Gaelic and Old English (Norman) families. The majority are tall rectangular towers, three to five storeys in height, each occupied by one main room and with one, sometimes two, vaulted stone floors. Though not castles in the military sense, they belong to the same tradition and retain many of the features of ‘true’ castles such as battlements, machicolations, narrow slit windows and, in later examples, gun loops. Many tower house had outer enclosures or bawns, often with corner towers on the angles, and usually built abutting the tower house rather than completely enclosing it.

There is a recorded castle at Bearna (GA093-002) to the southeast of the study area. It was located on the west bank of Bearna Stream where it flows into White Strand Bay. The form of the castle is unknown as there is no upstanding trace of the structure. According to some sources it was built by the O’Halloran’s in the thirteenth or fourteenth century and taken over by the Lynches, one of the original tribes of Galway, in the seventeenth century. It was in existence in 1574 when it was occupied by ‘Owen Ohalorane’ (Nolan 1901, 115). Known as Sean Chaislean Bearna, it appears to have been completely demolished by the early 19<sup>th</sup> century. No visible surface trace survives. (O’Flanagan 1927a, vol. 3, 166; Hardiman 1846, 59-60).

## Post-Medieval and Early Modern period

### Ecclesiastical Sites

Ecclesiastical sites encompass a variety of physical remains of Christian worship and burial spanning over 1000 years from AD c. 500 to 1700. There are no early Christian (AD c. 500-1170) or medieval (AD c. 1170-1600) ecclesiastical sites located within the study area. The church and graveyard sites within the study would appear to date from the 18<sup>th</sup> and 19<sup>th</sup> centuries.

Two churches are recorded at An Cnocán Carrach c. 1000m east of the Proposed Development (GA093-003002 & GA093-015). GA093-003002 is located on the north side of the old Galway-Bearna road to the northwest of silver strand. Grassed-over foundation lines (L 15.5m E-W, Wth 6m) now mark the site of this church. Described in OS Letters as ‘Barna old chapel’ to distinguish it from the later St. James’ R.C. Church (GA093-015) to the west-southwest, suggesting it may be the site of a pre-emancipation R.C. church. No architectural features survive nor is there any trace of the graveyard named on the Grand Jury map of 1819. A holy well (GA093-003001) lies close by to the east. (O’

Flanagan 1927a, vol. 1, 345. St. James' Church was demolished in the 1970's to make way for the existing Barna Church.

Two graveyards are recorded within the study area; An Cnocán Carrach (GA093-003003) 1000m east of the Proposed Development and Rinn Na Mara (GA093-020) 400m south of the Proposed Development. The graveyard at An Cnocán Carrach (GA093-003003) appears to have been associated with the pre-emancipation church (GA093-003002). It is marked on the Grand Jury map of 1819 but is not indicated on any Ordnance Survey maps and there is no visible surface trace of a graveyard here. The graveyard at Rinn Na Mara (GA093-020) is located on the west side of the byroad to Bearna Quay. The townland boundary runs along the centre of this road. Indicated as an enclosed sub-rectangular graveyard on early Ordnance Survey maps. It was extended to the west in the early 20<sup>th</sup> century. Burials were discovered beneath the road adjacent to the graveyard in 2006 and a total of 30 burials were subsequently excavated within the road in 2008-09 (see Section 12.4.7)

#### Barna Village

The village of Barna appears to date from the late 18<sup>th</sup> / early 19<sup>th</sup> century and its development is probably associated with the construction of Barna House close to Silver Strand in 1778 and a pier at Barna in 1799. The original pier was replaced by the existing structure which was designed by Alexander Nimmo and built 1820-30. The townland name Freeport is derived from the fact that boats landed here in order to avoid taxes at the nearby Galway port. The first edition Ordnance Survey map 1838-9 shows a substantial settlement at Barna (figure 12-6).

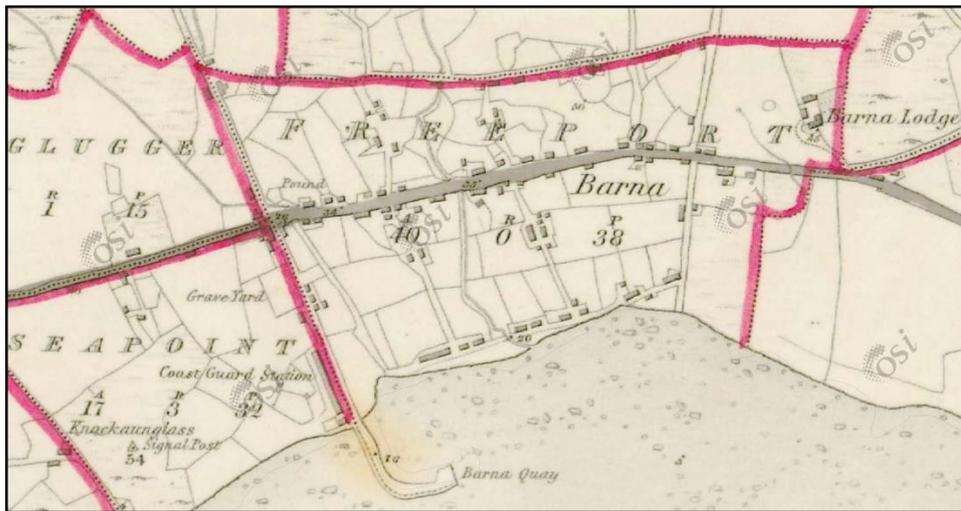


Figure 12.6 Ordnance survey map 1838-9 showing Barna village  
Ordnance Survey Ireland Licence No. EN 0076820

### 12.5.2

## Architectural and Cultural Heritage

For the purpose of this report, architectural heritage includes known (documented) and newly recorded features, if present.

- Record of Protected Structures.
- NIAH structures.
- NIAH Garden Surveys.
- Any other structures / features noted during field assessment.
- Cultural heritage items likely to be effected by the Proposed Development.

### 12.5.2.1 Protected Structures

The Record of Protected Structures as listed in the Galway County Council Development Plan 2015-2021 was consulted for protected structures which may be present within the site of the Proposed Development. No protected structures are located within or in close proximity to the study area.

There are five protected structures located within 2km of the study area; Barna House, Barna (RPS No. 744) 1500m east of the Proposed Development, Lynch Monument, Knockaunacarragh (RPS No. 747) 1000m east, Thatched House, Ahalugger (RPS No. 748) 430m south, Barna Pier (RPS No. 886) 500m south and Father Griffin Monument, Cloghscoltia (RPS No. 4018) 1250m north. These structures are also included in the NAIH Building Survey (see Table 12-2 below).

### 12.5.2.2 National Inventory of Architectural Heritage - Building Survey

No structures listed in the National Inventory of Architectural Heritage (NIAH) are located within the site of the Proposed Development. Five NIAH sites are located within 2km of the Proposed Development and are listed in Table 12-2 and shown in Figure 12-7.

Table 12-2 NIAH Sites located within 2km of the Proposed Development

NIAH Ref.	ITM	Townland	Classification	Distance (m)
30409301	122815, 224846	Cloghscoltia	Monument	1250m N
30409305	123059, 222875	Ahalugger	House	430m S
30409307	123304, 222634	Freeport	Quay	500m S
30409308	124388, 223410	Knockaunacarragh	Mausoleum	1000m E
30409310	124800, 223698	Barna	House	1500m E



**Map Legend**

- Site Boundary
- ◆ National Inventory of Architectural Heritage (NIAH)



Drawing Title  
**Protected Structures within 2km**

Project Title  
**Burkeway Barna SHD**

Drawn By	Checked By
OM	TB
Project No.	Drawing No.
190450a	12.5
Scale	Date
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### 12.5.2.3 National Inventory of Architectural Heritage - Garden Survey

There are no recorded historic gardens/ designed landscapes within 2km of the proposed development.

### 12.5.2.4 Vernacular Structures

The architectural heritage of the area is characterised by vernacular buildings using local granite stone. Remnants of such structures from the 18th and 19th centuries survive and are in use as outbuildings, while others are picturesque ruins. Galway County Council recognise the importance of these features in the Galway County Development Plan 2015-2021 (see Section 12.3.4). The first edition six inch (1838-9) and twenty-five inch (1890-1900) OS maps were analysed for any items of architectural or cultural heritage interest within the study area which may not appear in records such as the RPS or NIAH.

The first edition ordnance survey six inch map 1838-8 shows two small settlement clusters, containing a total of twenty buildings, straddling the north boundary of the development site. By the time of the twenty five map 1890-1900 only nine buildings remain and only two of these appear to be in use. Fieldwork revealed the remains of five buildings within the development site; two in the northwest extent and three in the north. These buildings most likely date from the early nineteenth century and are representative of settlement incursion into previously marginal land as a result of the massive expansion of population in the late eighteenth and early nineteenth centuries. The buildings are described below, from west to east:

**Vernacular Structure 1 (VS1):** located in the northwest extent of the development site this rectangular drystone structure (approx. dims. 12m E-W x 5.5m N-S) is built of roughly coursed granite boulders. The walls are approximately 2m high and display a pronounced batter, narrowing from 0.8m in thickness at the top to 1.1m at the base. There is a doorway west of centre in the north wall but no other openings are evident. The external corners are rounded, probably due to the type of stones employed in its construction. The building is located just 3m south of an east-west field boundary wall, which forms part of the development sites northern boundary. This boundary wall is not marked on the 1838-9 ordnance survey map and clearly post-dates the building.



Plate 12-1 Vernacular Structure 1, looking southwest

**Vernacular Structure 2 (VS2):** Located a short distance east of VS1 and abutted by the field boundary wall on the north, this rectangular structure (approx. dims. 9m E-W x 5.2m N-S) is for the most part concealed beneath a mound of loose stone, most likely deposited here during field clearance. Traces of walling at south and west reveal it to be a drystone structure built of unworked irregular granite boulders. It has a maximum visible height of 1.5m at northwest,



*Plate 12-2 Vernacular Structure 2, looking east*

**Vernacular Structure 3 (VS3):** Located in the north of the development site this well-preserved, albeit much modified, rectangular structure (approx. dims. 10m E-W x 6m N-S) is built of large granite blocks and boulders, and smaller packing stones. The building is primarily of drystone construction although a cement-like mortar is evident in places, particularly around the openings in the south wall. The side walls are 0.8m thick, 1.8-2m high and capped with concrete to support the pitched galvanised roof. The gables walls have been raised to accommodate a roof loft. The doorway and flanking windows in the south wall appear to be insertions. An opposing blocked doorway in the north wall may be the original entrance. Surviving glazing to the windows suggests the building was in use as a dwelling in relatively recent times. A block concrete internal dividing wall indicates more recent usage as an outhouse.



*Plate 12-3 Vernacular Structure 3, looking northeast*

**Vernacular Structure 4 (VS4):** Located a short distance northeast of VS3 this overgrown and ruinous rectangular structure (approx. dims. 6m x 4m) is built of large granite blocks and boulders. Only the northwest and southwest walls are visible. The northwest ‘gable’ wall stands to a maximum height of 2.5m and is 0.6m thick while the slightly curved southwest wall is 1.7m high and 0.8m thick. The west corner of the building is abutted by a field wall.



*Plate 12-4 Vernacular Structure 4, looking northeast*

**Vernacular Structure 5 (VS5):** Located a short distance east of VS4 this small, almost square, building (approx. dims 5m N-S x 4.25m E-W) is built of sub-rounded stones and boulders. The precarious south gable is 3m high while the west wall has a maximum height of 1.75m. There is a doorway (Wth. 0.9m) at the south end of the west wall. No other features are apparent.



Plate 12-5 Vernacular Structure 5, looking south with VS3 visible in background

### 12.5.2.5 Townland Boundaries

Townland boundaries were recorded for the first edition Ordnance Survey mapping of the 19th century. The townlands were then utilised as formal administrative units for the census and as the basic framework for Griffith’s Valuation. The boundaries take a variety of forms and may consist of earth and stone banks and associated ditches, or stone walls, or natural features. Townland boundaries are areas of archaeological potential being liminal spaces often marked in antiquity by ritual, territorial or apotropaic activity.

The townland boundary between Trusky East and Trusky West forms the west boundary of the north part of the development site (i.e. the west boundary to the north of the ‘Cnoc Fraoigh’ development). It is much overgrown with scrub vegetation and inspection was limited as a result. In the south it is a substantial drystone wall, 1-1.5m high and 1m thick, built of boulders and large field stones facing a rubble core of smaller stones. The wall incorporates a field gate entrance, which was accessed via a farm track from the L1321 local road to the west (plate 12-6). This track is marked on the 1890-1900 OS map but not on the earlier map. In the north of the development site the townland boundary wall appears much reduced and is topped by a later field wall comprising of a single line of field stones and boulders.



Plate 12-6 Field gate in townland boundary wall at west edge of development site

### 12.5.2.6 Other Cultural Heritage Items

A significant number of field boundaries are indicated on the early ordnance survey maps and are evidence of attempts to farm previously marginal land, a result of the massive expansion of the population of Ireland in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. Almost all of the field boundaries indicated on the first edition ordnance survey six inch map 1838-9 have been removed and replaced by a new field network by the time of the 1890-1900 ordnance survey map. Most of these walls, particularly those in the south and west of the site, were removed as a result of construction related activity associated with the ‘Cnoc Fraoigh’ development including the development of a wastewater treatment plant in the southwest extent of the development site.

Most of the surviving field boundary walls within the development site are typical nineteenth century field walls comprising of a single line of field stones and boulders with an average thickness of just 0.5m. However there are truncated remains of two substantial field boundary walls in the west of the site. The walls, 1-2-2.5m high and 1.5m thick, are of drystone construction and consist of large stones and boulders facing a rubble core of smaller stones. These walls extend west-east between the townland boundary at the west edge of the site and a former road which ran from south to north through the centre of the site (see Section 12.4.3). The southern wall is breached by a modern access road but other than this it is largely intact (plate 12.-7). The east part of the northern wall has been removed as a result of site clearance works (plate 12-8). The walls are marked on the 1890-1900 OS map but not on the earlier map indicating a date of construction in the mid or later nineteenth century.



*Plate 12-7 Substantial 19th century field wall in west of development site, looking east*



*Plate 12-8 Substantial 19th century field wall in west of development site, looking northeast*

The north extent of an old road survives in the north of the site. The road is approximately 3m wide and is defined by drystone walling of similar build to the surviving field walls in the area. This road, and a similar better-preserved road on the east side of the stream, is marked on the first edition ordnance survey map 1838-9 but only partly indicated on the 1890-1900 map suggesting it, like the

settlement it serviced, had fallen into disuse in the second half of the nineteenth century. Many such settlements were abandoned following the devastating effects of the Great Famine in the mid nineteenth century.



Plate 12.9 North extent of old road within development site, looking south

### 12.5.2.7 Language and the Gaeltacht

The site of the Proposed Development is located within a designated Gaeltacht area. A Linguistic Impact Statement (LIS) was prepared to examine the likely impact of the Proposed Development on the usage of the Irish language among the population of the Electoral District (ED) of Bearna, Co. Galway. A copy of the LIS is included as Appendix 12-2 of this EIAR.

The Irish Gaeltacht covers large sections of Mayo, Kerry, Donegal, Galway, Cork, Meath and Waterford. The Galway (Connemara) Gaeltacht is the largest and most populous Gaeltacht region in the country, spreading west from sections of Galway city, taking in areas including areas of Bearna, An Spidéal, Indreabhán, Ceathrú Rua etc.

According to the *Galway County Development Plan 2015-2021*(GCDP), the strongest Irish speaking community in the country is located in County Galway, mainly in the area from Bearna to Carna and including Oileáin Árann. The GCDP reports that this linguistic community is under severe pressure for many reasons, one being the pressure of people with no ability to speak the Irish language moving into the area, as well as other external influences and a lack of service provision in their own language.

### 12.5.2.8 Place Name Evidence

Place names may be derived from geological, archaeological or topographical features within the landscape or may also have taken the name of an important or famous person who once lived in the area. Place name evidence can refer to archaeological monuments within the vicinity which may no longer be visible in the landscape or which are now only documented through local history or tradition. The database of Irish place names [www.logainm.ie](http://www.logainm.ie) and the Ordnance Survey Name Books 1824-46 were consulted for the meaning of the place names located within the study area boundary and in the general environs of the site. The following was reported in the database:

- Barna – *Bearna* takes its name from the Irish *Bearn* or *Bearnaidh* meaning ‘Gap’, which alludes to the gap between two drumlins along the shoreline.
- Trusky East/*Troscaigh Thoir* – According to the Ordnance Survey namebooks *Truscaigh* means ‘forbidden’ or ‘prohibited’ while *Trosg* also means ‘a hill like a cod fish’.
- Trusky West/*Troscaigh Thiar* - According to the Ordnance Survey namebooks *Truscaigh* means ‘forbidden’ or ‘prohibited’ while *Trosg* also means ‘a hill like a cod fish’.
- Ahalugger/*Áth an Ghlugair* – *Ghlugair* means ‘quaking sod’ or ‘surface of quagmire’, *Áth* means ‘ford’. According to the Ordnance Survey Name Books the place name refers to a ‘Noisy or babbling ford’.
- Seapoint/*Rinn Na Mara* – *Mara* means ‘sea’, *Rinn* means ‘point’ or ‘headland’
- Freeport – *An Chéibh* means ‘quay’
- Knockaunnacarragh/*An Cnocán Carrach* – *Carrach* means ‘rocky’, *An Cnocán* is a hillock, a ‘Rugged little hill’ according to the Ordnance Survey Name Books.
- Lenarevagh/*An Léana Riabhach* – *Riabhach* means ‘streaked’ or ‘grey’; *Léana* means ‘water-meadow’.
- Ballard East/*An Baile Ard Thior* - *Ard* means ‘height’ or ‘high’, *Baile* means ‘townland’, ‘town’ or ‘homestead’.
- Ballard West/*An Baile Ard Thiar* – *Ard* means ‘height’ or ‘high’, *Baile* means ‘townland’, ‘town’ or ‘homestead’.
- Cloghscoltia/*An Chloch Scoilte* – *Cloch* means stone or stone building while *scoilte* is probably a grammatical form of *Scoilte* or *Scoilteadh* meaning a ‘crack’ or a ‘split’. Most likely a reference to fissured rock.

## 12.6 Potential Effects and Associated Mitigation Measures

### 12.6.1 Do Nothing Scenario

If the Proposed Development were not to proceed, then potential effects on heritage assets as a result of the Proposed Development and associated infrastructure would not apply with no need for mitigation. The existing land-uses on the site of the Proposed Development would continue.

### 12.6.2 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of the Proposed Development consists largely of earth-moving activities such as peat and topsoil removal. The potential effects on the known and potential archaeological, architectural and cultural heritage of the area are outlined below with the suggested mitigation measures.

#### 12.6.2.1 Effects on recorded archaeology and cultural heritage

As no UNESCO World Heritage Sites, National Monuments or Recorded Monuments are located within the footprint of the proposed development no direct effects on these aspects of the archaeological resource are identified. Similarly, as no Protected Structures, NIAH structures or historic gardens are located within the footprint of the proposed development no direct effects on these aspects of the archaeological and cultural heritage resource are identified.

### 12.6.2.2 Effects on unrecorded potential sub-surface sites

While no new archaeological sites were detected during the walkover survey the potential exists for the site to contain as yet unrecorded sub-surface sites and artefacts. It is possible that such sites may be uncovered beneath the topsoil, at the level of the underlying natural subsoil. Topsoil strip and development excavations may effect on any new sub-surface sites, if present.

#### Pre-Mitigation Impact

Should new sites be present beneath the topsoil (currently not visible on the surface) the impact is likely to be significant negative and permanent (i.e. development excavations would permanently remove the sites resulting in a significant negative impact).

#### Proposed Mitigation Measures

Archaeological monitoring of groundworks during construction will take place. A report on the results of monitoring shall be compiled and submitted to the relevant authorities on completion of the project. If any sites are detected during the pre-construction monitoring, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

#### Residual Impact

The potential impact after the mitigation measures is considered to be slight, permanent, and negative

### 12.6.2.3 Effects on Cultural Heritage Items

The Proposed Development will require the removal of all cultural heritage sites located within the development site. Cultural heritage items identified during fieldwork include five vernacular structures and a series of field walls, all dating from the late eighteenth and nineteenth centuries.

#### Pre-Mitigation Impact

The removal of the late eighteenth/nineteenth century vernacular structures and field walls will result in a permanent negative impact on these cultural heritage items.

#### Proposed Mitigation Measures

- All cultural heritage items which are to be removed to facilitate the Proposed Development will be recorded by means of photographs, written descriptions and scale drawings if necessary prior to removal.
- Groundworks at all locations shall be monitored and any sub-surface traces of the cultural heritage items shall be recorded by means of photographs, written descriptions and scale drawings if necessary.

#### Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, moderate, and negative.

### 12.6.3 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the Proposed Development. All indirect effects are likely to occur at the operational phase of the Proposed Development (see Section 12.6.5).

### 12.6.4 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the Proposed Development. Any likely direct effects will occur at the construction phase of the Proposed Development (see Section 12.6.2).

### 12.6.5 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to the Proposed Development. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the Proposed Development may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or ‘receptor’ and the scale or magnitude of the Proposed Development. Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition – Consultation Draft, Landscape Institute, 2013*).

#### 12.6.5.1 Impact on setting of UNESCO World Heritage Sites (Tentative list)

No monuments on the World Heritage Sites list and tentative list are located within 25km of the proposed development.

##### Pre-Mitigation Impact

No mitigation required

##### Proposed Mitigation Measures

No mitigation required

##### Residual Impact

No Impact

#### 12.6.5.2 Impact on setting of National Monuments

Impact on setting of National Monuments within 20km of the Proposed Development were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field

survey and the use of photomontages or wireframes where applicable. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

National Monument Numbers 46 (Roscam Early Medieval Ecclesiastical Site), 470 (Aghanure Castle) & 609 (Merlinpark Castle) are located within 20km of the Proposed Development. There is no inter-visibility between the monuments and the Proposed Development. The impact on the setting of the monuments is therefore deemed to be imperceptible.

### Pre-Mitigation Impact

No mitigation required

### Proposed Mitigation Measures

No mitigation required

### Residual Impact

No Impact

## 12.6.5.3 Impact on setting of Recorded Monuments

There are thirteen recorded monuments within 2km of the Proposed Development. The table below presents the recorded archaeological monuments within 2km of the Proposed Development according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site etc.) and the likely potential pre-mitigation impact on their setting. For example low visibility monuments such as holy wells, middens, field systems and most ringforts could be considered to have less potential to be impacted by the Proposed Development and therefore their sensitivity could be regarded as low. High visibility monuments such as castles, churches, abbeys and visually dominant monuments on high ground within close proximity to the site of the Proposed Development may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as ‘not significant’.

The majority of the monuments are located on private land with no formal public access. Such monuments can therefore only be viewed/appreciated by the public from the nearest public road. It should be noted that the Proposed Development will not impact on the immediate setting of the monuments by virtue of the fact that no recorded monuments are located immediately adjacent to a proposed structure. The likely pre-mitigation impacts for each monument are summarised below.

### Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP’s are set out in

Table 12-3 below

Table 12-3 Pre-Mitigation Impacts on setting of RMP’s within 2km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
GA093-002	Bearna	Castle	1600	Low (no trace)	Permanent, Imperceptible, Neutral

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
GA093-003001	Bearna	Ritual site – holy well	1200	Medium	Permanent, Imperceptible, Neutral
GA093-003002	An Cnocán Carrach	Church	1150	Medium	Permanent, Imperceptible, Neutral
GA093-003003	An Cnocán Carrach	Graveyard	1150	Low (no trace)	Permanent, Imperceptible, Neutral
GA093-006	An Cloch Scoilte	Cenotaph	1250	Medium	Permanent, Imperceptible, Neutral
GA093-007	Derryloney	Midden	1850	Medium	Permanent, Imperceptible, Neutral
GA093-009	Na Foráí Maola Thiar	Redundant record	1800	Low	Permanent, Imperceptible, Neutral
GA093-010	An Chéibh	Settlement cluster	370	Low (no trace)	Permanent, Imperceptible, Neutral
GA093-015	An Cnocán Carrach	Church	1000	Low (no trace)	Permanent, Imperceptible, Neutral
GA093-016	Newvillage	Church	1000	Low (no trace)	Permanent, Imperceptible, Neutral
GA093-020	Rinn Na Mara	Graveyard	400	Medium	Permanent, Imperceptible, Neutral
GA093-023	Troscaigh Thiar	Ringfort - rath	500	Low (no trace)	Permanent, Imperceptible, Neutral
GA093-023001	Troscaigh Thiar	Field system	450	Low (no trace)	Permanent, Imperceptible, Neutral

### Proposed Mitigation Measures

No mitigations proposed

### Residual Impact

The residual impact of the proposed development on the setting of National Monuments will be permanent, imperceptible, and neutral in effect.

#### 12.6.5.4 Impact on setting of RPS/NIAH structures

Low visibility structures such as milestones, post boxes, bridges etc. are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant structures such as houses and churches which often have obvious visible remains.

The sensitivity of an asset together with the distance from the Proposed Development dictates the significance of potential impacts. These are categorised based on individual visits..

None of the structures listed below will be directly impacted and no significant or adverse impacts will take place. The settings of the structures will not be impacted as there is no intervisibility between the structures and the proposed development site

### Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-4 below

Table 12-4 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 2km of Proposed Development

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
4018/30409301	Cloghscoltia	Monument	1250	Medium	Imperceptible, Permanent, Neutral
748/30409305	Ahalugger	House	430	Medium	Imperceptible, Permanent, Neutral
886/30409307	Freeport	Quay	500	Medium	Imperceptible, Permanent, Neutral
747/30409308	Knockaunacarragh	Mausoleum	1000	Medium	Imperceptible, Permanent, Neutral
744/30409310	Barna	House	1500	Medium	Imperceptible, Permanent, Neutral

### Proposed Mitigation Measures

No mitigations proposed

### Residual Impact

The residual impact of the proposed development on setting of RPS/NIAH structures will be permanent, slight, and negative in effect.

### 12.6.5.5 Impact on setting of NIAH gardens

There are no NIAH historic gardens within 2km of the Proposed Development.

#### Pre-Mitigation Impact

None

#### Proposed Mitigation Measures

No mitigation necessary

#### Residual Impact

No impacts

### 12.6.5.6 Impact on Language and the Gaeltacht

The LIS prepared for the proposed development (Appendix 12-2 of this EIAR) concludes that overall it is not anticipated that the proposed development will have any undue negative impact on the Irish language or the Irish culture in Bearna. The proposed development involves the construction of 121 no. dwelling houses within the designated development envelope of Bearna which is clearly in line with the Policies and Objectives, contained in the current National Planning Framework, Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly, Galway County Development Plan 2015-2021, Variation No. 2(a) to the Galway County Development Plan 2015-2021 (Bearna Plan) and Variation No. 2 (b) of the Galway County Development Plan 2015-2021 (Gaeltacht Plan). Therefore, the proposed scheme is in accordance with the principles of sustainable planning and development of the area.

The proposed development will provide additional residential units within Bearna which will augment and support the existing population centre. The provision of an additional 121 no. units at this location will not have an adverse impact on the linguistic integrity of the area due to the population levels and numbers of Irish speakers in the vicinity. Furthermore, in compliance with the extant Gaeltacht and Bearna Local Area Plans, 24 no. residential units will be reserved for Irish speaking members of the community. The reservation of these houses for Irish speakers will help strengthen the language in the village and that this is in addition to any further Irish speakers that may occupy the 96 no. remaining proposed houses. This will have a positive impact on the Irish language and culture in Bearna.

While many of the benefits of the proposed development from a linguistic impact viewpoint will be indirect and difficult to measure, the provision of additional residential development must be accommodated within the village of Bearna in order to comply with the objectives contained in the National Planning Framework, Regional Spatial and Economic Strategy and Galway County Development Plan 2015-2021. Overall it is not anticipated that the proposed development will have any undue negative impact on the Irish language or the Irish culture in Bearna.

#### Proposed Mitigation Measures

No mitigation necessary however 24 no. residential units will be reserved for Irish speaking members of the community.

## Residual Impact

The residual impact of the proposed development on the Irish language will be Long term, slight, and positive in effect.

### 12.6.6 Cumulative effects resulting from Interactions between various elements of the proposed development

The interaction of the various elements of the proposed development was considered and assessed in this EIAR with regards cultural heritage. The potential for each individual element of the proposed development on its own to result in significant effects on cultural heritage was considered in the impact assessment. The entire project including the interactions between all its elements was also considered and assessed for its potential to result in significant effects on cultural heritage in the impact assessment presented.

All interactions between the various elements of the project were considered and assessed both individually and cumulatively within this chapter. Where necessary, mitigation was employed to ensure that no cumulative effects will arise as a result of the interaction of the various elements of the development with one another.

### 12.6.7 Cumulative In-Combination Effects

Cumulative impact is defined as ‘The addition of many small impacts to create one larger, more significant, impact’ (EPA 2017).

In this regard in order to assess overall cumulative effects on archaeology and cultural heritage the proposed project is considered in the context of a number of existing, proposed and permitted developments in the area as listed in Table 15.1 of this EIAR. Where appropriate the application documentation, EIAR and NIS associated with these projects have been reviewed to inform the assessment.

The nearest existing developments comprise residential properties immediately to the west, with agricultural land to the east and north. The addition of the proposed development to this already largely altered landscape will not result in a visual impact to any nearby recorded monuments, protected structures or NIAH structures or features.

In terms of potential cumulative direct impacts, potential direct impacts which may occur to sub-surface archaeological features within the proposed development site will be mitigated against as discussed in Section 12.6.2. There is no potential for cumulative impacts to sub-surface archaeological features arising from the proposed development in combination with other projects.

The analysis of potential direct and indirect impacts on cultural heritage concludes that the proposed development will result in no significant impacts. There is little potential for cumulative impacts arising from the proposed development in combination with other projects in the vicinity. The other projects in the vicinity of the proposed development are small in scale and are in keeping with the sub-urban character of the area. No significant cumulative impacts on cultural heritage are anticipated during the construction or operation phases as long as mitigation measures outlined are put in place.