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Archaeological Impact Assessment & Geophysical Survey

Bremore Regional Park, Balbriggan, Co. Dublin

Bremore Regional Park Development Project:

Part 8 Planning Application

Client:

Áit Urbanism + Landscape,

3rd Floor, Newmarket House,

Newmarket Square

Dublin 8

ITM: 719790, 764711

Detection Licence No.: 20R0032

RMP: DU002-002001–6; -003; -004; -016; -017

RPS: Nos 12, 13, 14, 17 and 18

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3 March 2021

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PROJECT DETAILS

Project	Archaeological Impact Assessment and Geophysical Survey for Bremore Regional Park Development Project, Balbriggan, Co. Dublin
Report Type	Archaeological Impact Assessment and Geophysical Survey for Part 8 Planning Application
Detection Licence No.	20R0032
Archaeologists	Kerri Cleary, John Nicholls and Ian Russell
Client	Áit Urbanism + Landscape
Site	Bremore Regional Park, Balbriggan, Co. Dublin
Townlands	Bremore, Tankardstown and Balbriggan (Balrothery East By.)
ITM Ref.	719790, 764711
RMP Nos	DU002-002001-, 002-, 003-, 004-, 005- and 006- (Fortified House, Church, Graveyard, Cross, Architectural Fragments x 2) DU002-003---- (Mound) DU002-004---- (Martello Tower) DU002-016---- (Enclosure) DU002-017---- (Mound)
Protected Structures	RPS No. 12 (railway bridge) RPS No. 13 (St Molaga's church and graveyard) RPS No. 14 (Bremore Castle) RPS No. 17 (Martello Tower) RPS No. 18 (bath house and boat house)
Report Date	3 March 2021
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NON-TECHNICAL SUMMARY

This report presents the findings of an archaeological impact assessment and geophysical survey for Bremore Regional Park, Balbriggan, Co. Dublin. This report was commissioned to contribute to the development of the *Bremore Regional Park Development Project: Part 8 Planning Application*. The park extends to a total area of 43.5 hectares within the townlands of Bremore, Tankardstown and Balbriggan, all within the Barony of Balrothery East (ITM 719578, 765355 north to 720384, 763891 south). Within this, the boundary of the Part 8 Planning Application project area extends to 15.07 hectares (ITM 719496, 765149 north to 720231, 764209 south) and is presented as the Balbriggan Sports & Recreational Hub, the Central Zone and the Coastal Park.

Bremore Regional Park contains ten recorded monuments listed within the Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR). These comprise a later medieval fortified house (Bremore Castle) and associated church (St Molaga's) and graveyard that includes architectural fragments and a carved cross (DU002-002001–6). The site is reputed to be the manorial seat of the Barnewall family from the 14th century. The late medieval carved cross (DU002-002004-) was taken into storage at Ardgillan Castle in 2009. The remaining sites are to the southeast and consist of two mounds (DU002-003 and DU002-017), an enclosure (DU002-016) and a Martello Tower (DU002-004). The park also contains five protected structures, as listed in the *Fingal Development Plan 2017–2023*, including St Molaga's church and graveyard (RPS No. 13), Bremore Castle (RPS No. 14) and the Martello Tower (RPS No. 17). The remaining protected structures comprise a railway bridge (RPS No. 12) and a bath house and boat house (RPS No. 18). These built heritage assets and others, such as Bell's Cottage, have been the subject of a separate Architectural Heritage Assessment by architectural heritage consultants, Howley Hayes Architects.

Excavations within Bremore Regional Park were undertaken in 1995 and 2017, both within (Licence No. 95E0183) and in the area around Bremore Castle, the latter concentrated within the walled garden (Licence No. 17E0302). The 2017 investigations were undertaken based on a geophysical resistivity survey (Licence No. 11R0038) carried out by Target Archaeological Geophysics (2011) at the eastern side of the castle and into the adjacent playing pitch, as part of the *Bremore Castle Conservation Plan* (2013). The 1995 excavations identified a series of walls, two stone-built drainage channels, spreads of burnt material, large quantities of whelk and limpet, some animal bone and post-medieval pottery. The 2017 excavations identified a ditch close to the surviving southern wall of the castle, a 17th-century metalled surface, a Victorian pathway and numerous sherds of 12th–15th-century pottery. To the north of Bremore Castle, excavations in 2011 (Licence Nos 01E0311 & 01E0370) revealed part of a medieval field system (DU002-014), as well as a metalled pathway, pits, a small structure, medieval pottery, a slate mass sundial, two Elizabethan coins (1601–2), a six-pound cannonball and post-medieval features. An examination of cartographic sources also indicated that Bremore Regional Park incorporates the former sites of a coastguard station and parts of a brick works and hosiery factory, all within the townland of Tankardstown.

In early 2020, a total of 29.4 hectares of high-resolution magnetic gradiometer survey (Licence no. 20R0032) was completed within the park boundary, examining ten locations suitable for geophysical investigation. This successfully identified the subsurface remains of the known archaeological sites associated with RMP DU002-003--- (mound) and DU002-016---- (enclosure), as well as several anomalies that suggest further archaeological remains across the park, including some that may indicate additional medieval and post-medieval features in the vicinity of Bremore Castle.

Combined, the results of this impact assessment and geophysical survey confirmed that the overall landscape of the park has high archaeological potential. As such, a series of measures have been recommended to help protect and mitigate the impact on both the designated and non-designated archaeological and cultural heritage within Bremore Regional Park.

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1. INTRODUCTION

This report presents the findings of an archaeological impact assessment and geophysical survey for Bremore Regional Park, Balbriggan, Co. Dublin. The park extends to a total area of 43.5 hectares within the townlands of Bremore, Tankardstown and Balbriggan, all within the Barony of Balrothery East (ITM 719578, 765355 north to 720384, 763891 south; Figures 1–2). Within this, the boundary of the Part 8 Planning Application project area extends to 15.07 hectares (ITM 719496, 765149 north to 720231, 764209 south), which is focused on the lands to the west of the rail-line as well as the section of the park to the south-east and is presented as the Balbriggan Sports & Recreational Hub, the Central Zone and the Coastal Park (see Figure 13). This report, which assesses the entire park, was commissioned to contribute to the development of the *Bremore Regional Park Development Project: Part 8 Planning Application* and to help guide the future development of the park.

The park is bordered to the north by agricultural land, to the east by the shoreline, to the south by Balbriggan Harbour and to the west by residential developments, Saint Molaga's National School and the Loreto Convent. The Dublin–Belfast railway line extends through the park along a northwest to southeast axis. As per the *Fingal Development Plan 2017–2023,* the majority of the park area is a greenbelt or high amenity area, with the exception of a small area in the vicinity of a free-standing industrial chimney stack of the former Sea Mills Hosiery Factory (RPS No. 19; see Sections 3.1 and 3.7), which is assigned as part of the major town centre. The objective of the latter zone is to '*promote and facilitate the development of the disused factory site, to the north of the beach/harbour as a mixed residential hotel, leisure and entertainment precinct with shops, cafes and restaurants overlooking the coastal park and the sea*'.

The area defined as Bremore Regional Park (Figure 1) contains ten recorded archaeological monuments listed within the Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR; Figure 2). These comprise a later medieval fortified house (Bremore Castle; DU002-002001-) and an associated church (St Molaga's) and graveyard that includes architectural fragments and a carved cross that is no longer *in situ* (DU002-002002- to 006-), two mounds (DU002-003---- and DU002-017----), an enclosure (DU002-016----) and a Martello Tower (DU002-004----).

The park also contains five Protected Structures (Figure 3), as listed in the *Fingal Development Plan 2017–2023*, including St Molaga's church and graveyard (RPS No. 13), Bremore Castle (RPS No. 14) and the Martello Tower (RPS No. 17). The remaining protected structures comprise a railway bridge (RPS No. 12) and a bath house and boat house (RPS No. 18). Just outside the western boundary of the park are a further five protected structures; Bremore Cottage / Lodge (RPS No. 15), a free-standing industrial chimney stack of the former Sea Mills Hosiery Factory (RPS No. 19), Balbriggan Railway Station (RPS No. 30) and associated Station Master's House (RPS No. 31), and a former RNLI boat house (RPS No. 35). The built heritage assets related to the *Bremore Regional Park, Park Development Project: Part 8 Planning Application* have been the subject of a separate Architectural Heritage Assessment by architectural heritage consultants, Howley Hayes Architects.

In early 2020, a total of 29.4 hectares of high-resolution magnetic gradiometer survey (Detection Licence no. 20R0032) was completed within the park boundary, examining ten locations suitable for geophysical investigation (Section 4; Figure 14). This successfully identified the subsurface remains of the known archaeological sites associated with RMP DU002-003--- (mound) and DU002-016---- (enclosure), as well as several anomalies that suggest further archaeological remains across the park, including some that may indicate additional medieval and post-medieval features in the vicinity of Bremore Castle.

2. THE DEVELOPMENT

2.1 Proposal

This archaeological impact assessment and geophysical survey has been carried out at the request of the client to assist in the preparation of the *Bremore Regional Park Development Project: Part 8 Planning Application*, in order to deliver a sustainable vision for the park in the face of population growth and increasing levels of community participation in active leisure. A key feature of the project is the consideration of the visual, historic and ecological attributes of the park, including proposals formulated to provide linkages to Bremore Castle that integrate proposals for future use of the park, including the *Bremore Castle Feasibility Study* and *Bremore Castle Conservation Plan*. It is also anticipated that the park will be a key node on the Fingal Coastal Way, a coastal walk and greater Dublin area cycle network.

Planning permission is sought for a series of development works within Bremore Regional Park as part of a Park Development Project, whereby the proposals are grouped under their respective zones within the site, namely the Balbriggan Sports & Recreational Hub, the Central Zone and the Coastal Park. The detailed project development works proposed in each zone are as follows:

- The Balbriggan Sports & Recreational Hub and main ancillary infrastructure:
  - 8 Lane Athletics Track (All weather surface)
  - 1 no. All Weather (3g Surface) Pitch, 100m x 60m
  - 1 no. 5-a-side side All Weather (3g Surface) Pitch 40m x 25m
  - 2 no. 9-a-side football pitches, 70m x 50m
  - 3 no. Basketball courts 28m x 16m
  - 2 no. Tennis Courts 24m x 11m
  - 1 no. GAA Pitch 145m x 90m
  - Bleacher seating structures
  - Sports enclosure fencing
  - Primary Circulation Network

- Main ancillary infrastructure:
  - Changing & Toilets Building (341 sqm)
  - Vehicular Access from R132
  - Bicycle Parking:
    - 57 no. 'Sheffield' type Bicycle Stands

- Landscaped Car Park and Associated Car Parking:
  - 50 no. Standard Car Spaces
  - 3 no. Universally Accessible Spaces
  - 1 no. Coach Set Down
  - Associated Foul/Fresh Water & ESB Connections and Fibre Optic Communications Connections

- Proposed Sports & Recreational Hub Lighting:
  - Public lighting of primary circulation network
  - Public lighting of car park
  - Sports lighting
    - 8m & 12m high columns to sports courts
    - 18m & 20m high columns to athletics track & all-weather pitch

- The Central Zone, Open Spaces:
  - Natural play elements
  - Outdoor gym equipment and other park furniture elements
  - Resurfacing and landscaping works
  - Provision of over flow parking
    - 50 no. spaces on reinforced grass surface
  - Signage, seating
  - Bicycle Parking:
    - 13 no. 'Sheffield' type Bicycle Stands
  - Public Lighting of select, primary circulation routes including associated ducting and ducting for future fibre optic connections

- The Coastal Park:
  - Basketball Half Court
  - Skate Bowl
  - Structural Planting (Trees & Shrubs)
  - Amenity planting and grass mounds
  - Paving surface treatments
  - Terraced steps/seating
  - Bicycle Parking:
    - 25 no. 'Sheffield' type Bicycle Stands

- Landscaped Car Park and Associated Car Parking:
  - 98 no. Standard Car Spaces
  - 6 no. Universally Accessible Spaces
  - Resurfacing and landscaping works
  - SuDS Installation
  - Removal of private car access to coastal car park area & relocation of 19 no. existing car parking spaces
  - Bicycle Parking:
    - 18 no. 'Sheffield' type Bicycle Stands

- Park boundaries (1220 lin.m)
  - 1.8m High Steel Railing: 925m
  - 1.8m High Stone Wall and Railing; 295m

2.2 Archaeological Requirements

The client requested an archaeological impact assessment to assist in the preparation of the *Bremore Regional Park Development Project: Part 8 Planning Application*. This was carried out in order to assess the archaeological potential of the park, including for the existence of any as yet unrecorded monuments. The purpose of the impact assessment is to gain an understanding of the historic environment within and surrounding the park, in order to assess its significance relative to its hinterland and ultimately the impact any proposed development of the park would have on these recorded monuments, protected and historic structures. It also provides strategies to conserve, protect and interpret any significant heritage assets while developing the park.

2.3 Methodology

This archaeological impact assessment report comprised a desktop survey (Section 3) and a geophysical survey (Section 4). A draft desktop study was completed in 2019 and advised that a geophysical survey of the park be undertaken to identify subsurface archaeological remains prior to progressing the design and any proposed groundworks in advance of any future development. A geophysical survey was then commissioned by the client and completed in early 2020, successfully identifying potential archaeological remains in the vicinity of the Martello Tower and Bremore Castle.

2.3.1 Desktop survey

The desktop survey involved a literature review and consultation of the Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR) compiled and updated by the National Monuments Service and the National Historic Properties Service of the Department of Culture, Heritage and the Gaeltacht. The RMP is comprised of manuals that list all known archaeological sites and monuments in a county with accompanying maps (based on Ordnance Survey (OS) 6-inch maps) locating these sites. All sites included in the RMP are protected under the National Monuments Acts (1930–2004). The SMR consists of all records stored in the Archaeological Survey of Ireland national database and is presented in the Historic Environment Viewer, which also includes sites listed in the National Inventory of Architectural Heritage (see below).

The Topographical Files of the National Museum of Ireland were also consulted to assess the area's archaeological potential. These files list, on a townland basis, all archaeological artefacts in the care of or known to the museum. Such a record can provide evidence for human settlement or activity in the absence of physical remains or documentary references. The results of previous and ongoing archaeological investigations were also taken into account in order to evaluate the level of archaeological remains coming to light in the area. Historical maps held by the Map Library of Trinity College Dublin and aerial photography from the Geological Survey of Ireland were both consulted. These sources can indicate areas of archaeological potential through features like curving field boundaries, cropmarks and soil marks and can provide information regarding the nature and extent of recorded archaeological sites that have become denuded since the early 19th century. Historical maps are also useful in identifying other features of cultural heritage significance.

The *Fingal Development Plan 2017–2023* was consulted as this contains a Record of Protected Structures (Appendix 2). The National Inventory of Architectural Heritage (NIAH) for County Dublin contains other buildings of architectural interest in the area, some of which are not included on the Record of Protected Structures.

In addition to the desktop study, a field inspection of the park was used to identify current and previous land use and to locate any features of archaeological potential or items of cultural heritage interest on the site.

2.3.2 Geophysical survey

A high-resolution magnetic gradiometer survey was undertaken within the park boundary, examining ten locations (M1 to M10) deemed suitable for geophysical survey. Of these, areas M5, M6 and M8, as well as part of M2 and M3, are within the boundary of the Part 8 Planning Application project area.

This work covered a total of 29.4 ha and was undertaken under Licence no. 20R0032 by Ian Russell of ACSU and John Nicholls of Target Archaeological Geophysics. The technical methodology and results are presented in Section 4.

3. DESKTOP SURVEY

3.1 Archaeological & Historical Background

Bremore Regional Park is located on the northeastern side of Balbriggan town, along the coastal fringe of Fingal (Figures 1–2), in the townlands of Bremore, Tankardstown and Balbriggan, all within the Barony of Balrothery East. The park is a total of 43.5 hectares in size and bordered to the north by agricultural land, to the east by the shoreline, to the south by Balbriggan Harbour and to the west by various residential developments as well as Saint Molaga's National School and the Loreto Convent. The Dublin–Belfast railway line extends through the park along a northwest to southeast axis. In 2001, prior to a large housing development (Cardy Rock) to the west of the northern part of the park, directly north of Bremore Castle, archaeological investigations (Licence Nos 01E0311 and 01E0370; DU002-014; O'Carroll 2009; see Section 3.4) revealed part of a medieval field system, a metalled pathway, pits, the footprint of a small structure, large amounts of medieval pottery, a slate mass sundial, two Elizabethan coins dating from 1601–2 and a six-pound cannonball, as well as various post-medieval features. The Part 8 Planning Application project area is focused on 15.07 hectares of the park, on the lands to the west of the rail-line as well as the section of the park to the south-east, and is sub-divided into the Balbriggan Sports & Recreational Hub, the Central Zone and the Coastal Park (see Figure 13).

Prehistoric period

The evidence from the area around Balbriggan indicates a considerable prehistoric presence in the landscape. The earliest evidence for Fingal's past inhabitants is to be found along the coast by Mesolithic (c. 8000–4000 BC) people that hunted, foraged and fished the landscape. Shell middens can indicate occupation during this period, alongside discoveries of worked stone tools along the coastline from Sutton and Malahide to Balbriggan and on Lambay Island (Baker 2009, 90). The following Neolithic (c. 4000–2400 BC) saw a greater impact on the landscape, including the clearance of forestry and advent of farming. This was also a period of tomb building. The Bremore tombs (DU002-001001–5), for example, are positioned on a headland approximately 1km north of Balbriggan town and represent part of the Gormanston–Bremore passage tomb complex on either side of the mouth of the Delvin River. These comprise a large passage tomb mound and four smaller mounds (Cooney 2007). The location of these tombs on the coast of the Irish Sea has suggested to many that they may be early in the sequence of passage tombs, pre-dating those of the Boyne Valley to the northwest, which date from c. 3300–3000 BC. In the 1990s, field-walking in the area highlighted the existence of substantial quantities of worked stone dating from the Neolithic period, mainly derived from locally available flint beach nodules, with the distribution patterns indicating definite areas of activity around the tombs (*ibid*.). Flint scatters, including Neolithic artefacts, were also noted during monitoring of topsoil removal in advance of a sewerage line along the coast road at Isaac's Bower in Balbriggan town (Shanahan 2003). Overall, a tradition of non-systematic surface collection of lithics in eastern Leinster extends back into the 19th century and has produced a substantial amount of Mesolithic, Neolithic and Bronze Age material and since the late 1980s this has been continued by more systematic fieldwalking exercises (Smyth 2014, 130–31). The fields along the coast appear to have been a focus of lithic reduction, with production concentrations occurring in roughly the same locations as preparatory activity. Notably, this decreases in scale as one moved further away from the coast and the coastal fields also contained the greater variety of tools, suggesting the coastal area was a production zone with worked material being moved inland (*ibid*., 132; Dolan & Cooney 2010, 24).

During the excavations at Cardy Rock, a paleochannel or old stream bed extending through the site was found to have a nearby hearth with shattered burnt stone and some flint, perhaps indicating prehistoric occupation in this area (O'Carroll 2009, 78). An Early Neolithic house (05E0663; DU001-014) was excavated to the west of Bremore Regional Park in 2005, in the townland of Flemingtown. This site

comprised the footprint of a slot-trench-built structure, 10m long north–south by 6m wide with a west-facing doorway, and a large assemblage of pottery and struck flint, as well as a polished stone axehead (Bolger 2009, 25–6).

To the southwest of Balbriggan town, in the townland of Clonard or Folkstown Great, excavations in 2015–16 uncovered a multi-period site (15E0586) that included activity dating from the Bronze Age (c. 2400–800 BC), such as a *fulacht fiadh* or burnt mound site, a ring-barrow, a routeway or avenue defined by parallel narrow gullies, and a possibly ceremonial enclosure with an associated cremation pit, all on the edge of a former marsh (McGlade 2016). The cremation burial returned a Late Bronze Age date of 969–807 cal. BC. Gas pipeline development in the area in 2002 also uncovered a series of prehistoric sites, including a possible roundhouse (DU004-046) at Clonard or Folkstown Great that returned a Middle Bronze Age date of 1449–1319 cal. BC (Grogan *et al*. 2007, 218). This structure was c. 7m in diameter with a southeast-facing entrance porch and associated with a small polished stone axehead, flint waste flakes and some pottery sherds (*ibid*.). Outlying concentrations of stake-holes returned an Early Bronze Age date, while two external hearths returned an Early Iron Age date. In the nearby townland of Flemingtown, a segmented curvilinear ditch (DU001-031), interpreted as a ring-ditch, was associated with burnt and non-burnt animal bone, some human bone, carbonised grain and a single sherd of Bronze Age pottery; it was dated to the Late Bronze Age with subsequent activity in the Late Iron Age (*ibid*., 219–20). In addition to the Neolithic house detailed above, further excavation at Flemingtown in 2005 (05E0663) identified burnt mound material, pits and a possible trough, as well as a shallow pit that produced coarse Bronze Age pottery (Bolger 2009, 27).

As mentioned above, there is also evidence for Iron Age activity (c.800 BC–AD 400) in the vicinity of Bremore Regional Park. A hearth at Clonard or Folkstown Great was dated to the earlier Iron Age, while the ring-ditch in Flemingtown had evidence of re-cutting in the later Iron Age (AD 217–344) (Grogan *et al*. 2007, 218; 220).

A mound (DU002-003; Plates 1 and 2; see Section 3.2) within the southern half of Bremore Regional Park is located on a slight slope, on the northern bank of an unnamed river and near the cliff edge, with a path leading to the beach along the northern side of the mound. It was recorded as oval and flat-topped, measuring 9m in diameter at the base and 3m at the top, with a height of 2.5m. This monument is of unknown date but its proximity to a second mound (DU002-017; Plate 3; see Section 3.2), approximately 200m to the southeast, and the extensive evidence for prehistoric occupation in the environs, from passage tombs to barrows, may indicate a prehistoric date for these features. A study of barrow monuments in the area around Tara, Co. Meath, identified five main types: ring-ditch, embanked ring-ditch, ring-barrow, bowl-barrow and bowl-barrow without external bank (Newman 1997, 153–60). The stepped barrow and enclosure barrow have also been added to the classification (Farrelly & Keane 2002). Barrow monuments average 11m in diameter but can vary from 3m to 25m and they appear to have been used for at least 1,700 years, increasing in popularity in the later prehistoric period (McGarry 2009). Burial and display can be considered the primary functions of barrows and archaeological excavations have recorded both singular and multiple cremations and inhumations deposited within the ditches, in the interior, in the mound, and from the surrounding external area. Alternatively, this mound could represent a shell midden site, but it is unusual for such sites to stand high in the landscape, with most thrown up against a bank or within sand dunes, although the Mesolithic shell midden at Cnoc Sligeach on Oronsay in Scotland was a mound up to 3.2m in height (Woodman 2015, 104–8). Most of the larger and higher middens found in Ireland are, however, much later in date, indeed some are not even prehistoric (*ibid*.). Further insight into this mound is presented below (Section 5) in light of the geophysical survey results.

Medieval period

In Ireland, the early medieval period (c. AD 400–1100) saw the arrival of Christianity and literacy. During this period the coastal zone from the Rivers Dee/Glyde confluence southwards to the River Liffey was initially controlled by the Ciannachta Breg, perhaps with three defined territories; the area between the Dee and the Boyne, the area between the Boyne and the Nanny (centred on Duleek) and the area between the Nanny and the Liffey (including Balbriggan). The decline of the secular Ciannachta power base in the 8th century was characterised by the loss of over-lordship of the two southern territories to the Síl nÁeda Sláine branch of the Uí Néill, which mainly controlled the overkingdom of Brega until the 11th century (Bolger 2009, 27).

Settlements dating from this period were largely based on rural and pastoral activities with people living off the landscape and working the land around them (O'Sullivan *et al*. 2013). This form of living led to the development of small, social communities structured around enclosed rural farmsteads, raths or cashels, often inter-visible with other similar settlements in the landscape. These types of settlement enclosures are often referred to as ringforts or raths and in 1995 there were over 45,119 possible ringforts identified in Ireland (*ibid*.). This form of society was built on families and kinships where land was divided into small sections based on natural formations within the landscape. The individual lands were then owned, worked and maintained by a *túath*, which is essentially a tribe (small kingdom of people) and the landscape within which they lived. The kin, which is the major family within the tribe, were responsible for the land and the people within it and formed the basis for hierarchy of rural settlement in Ireland (Edwards 1990). This homogeneity within Ireland's society is well documented by Saint Partick's writings during his missionary activities. He makes note that in comparison to Anglo-Saxon England or Visigothic Spain (where kings were few or one in the whole country), Ireland had multiple kings, all with their own *túath* (Ó Cróinín 1995). The heredity property owned by each kin was called a *fintiu* and while one single person had autonomy over that land, they could not sell or alienate it without the permission of the kin, who all held shares in the *fintiu*. The 'kin' was divided into sub-faction groups based on their relationship to their grandfather (*gelfine*) or great-grandfather (*derbfine*). If the owner of the *fintiu* passed away, then the land would be divided up amongst the primary group within the kin as long as they all held equal status (Bolger 2011). This resulted in the structure of the kinship being selective and restricting, focusing on only certain relationships and allowing the kin group to segment. This may also have encouraged marriages into other kins of similar wealth. In a national and local context, this hierarchy was extremely complex and influenced all grades of society. In total there were three different grades, the kings, the nobles and the peasants. Nobles were always free men; often wealthy land holders, craftsmen, artists or even successful warriors. The lowest grade were known as the clients; some of these would have been free men and were farmers who owned no land but rented land or cattle from nobles. Much of this community, however, were essentially servants or slaves. Clients were bound to the land they worked and were not allowed to leave, whereas slaves would have been considered property of the lords (Edwards 1990).

The possession of cattle was an important indicator of wealth and status and only those of a certain elite grade could own a vast amount of cattle. It is widely believed that the construction of the ringfort-type settlements was an attempt to protect cattle / livelihood from raiders. These raiders were most likely from other *túaths* attempting to increase their power and wealth while also decreasing the standing of their neighbouring *túath*. The ancient Irish epic, *An Táin Bo Cúiligne*, the legend of Queen Medb and her attempts to raid Cúiligne and steal their brown bull is a classic reflection of Ireland at this time. While this period often dominates the archaeology of an area, this is partially due to the high survival rate of ringforts and cashels, which have been afforded a great deal of protection in many areas due to superstition. The area around Balbriggan contains several sites from this period, mainly in the form of enclosures, field systems and cereal-drying kilns (see Figure 2). Excavations at Rosepark, Balrothery, for example, revealed a large multi-phase enclosure complex with the main phases of activity focused on a central settlement core (Carroll 2001). The main ditch complex at Flemingtown (05E0663) was also dated to this period and is postulated to represent an agricultural field system incorporating water

management features and demarcated areas of specialised activity such as metalworking and cereal-processing (Bolger 2009, 28–34). After the discovery by a farmer of a souterrain, another extensive site comprising a ringfort surrounded by a field system (DU005-052) was identified at Stephenstown through geophysical survey, with excavation of part of an outer ditch indicating late 7th to mid-10th century occupation (Kavanagh 2008).

A large circular, bivallate enclosure (DU002-016; Plate 4; see Section 3.2), positioned between the two mounds (DU002-003 and DU002-017) detailed above, may represent a site dating to the early medieval period. It is, however, only known from aerial photography (see Section 3.6) and geophysical survey (see Section 4), with no above ground trace surviving, although the curve of the field boundary along the eastern side of this monument is notable (see Section 3.5; Figure 12). As with the nearby mounds, the date and function of this monument remains unknown and it could equally represent a prehistoric enclosure, perhaps even a coastal promontory fort.

Early medieval enclosed farmsteads have average internal diameters of c. 30m and the internal diameters of univallate and multivallate enclosures tend to be similar (Edwards 1990, 14). There is, however, considerable diversity in ringfort morphology, most likely reflecting varying social, economic and ideological dynamics (O'Sullivan *et al*. 2010). The interiors often contained demarcated areas for specific activities related to the daily lives of the inhabitants, such as metalworking, cereal-processing and craft production. Alternatively, it may represent a prehistoric enclosure, such as that excavated at Clonard or Folkstown Great in 2015 (McGlade 2016; 15E0586); a truncated penannular enclosure measuring 23m by 18.5m in diameter internally, defined by a ditch, 0.3–1.05m wide by 0.05–0.94m deep with a causeway to the southeast. Late Bronze Age pottery, a possible clay mould and a grinding stone were retrieved from the fills of the enclosure ditch and five post-holes along the base might suggested there had been an associated fence or palisade. Coastal promontory forts, distinguished by their locations on headlands, promontories or cliff-edges, also appear to range in date from the Late Bronze Age to the late medieval period, but there is increasing evidence that most were occupied during the early medieval period (O'Sullivan *et al*. 2013, 62–4). Very few of these site types have been excavated but those that have, such as Dunbeg Fort, Co. Kerry, Larrybane, Co. Antrim and Dalkey, Co. Dublin, have shown some evidence for early medieval activity and settlement. Excavations on Dalkey Island, for example, revealed prehistoric activity but also an early medieval trading station and promontory fort with simple shelters, midden material and imported 5th- to 7th-century pottery and glass, some of which was from the Mediterranean (*ibid*., 69). The very large promontory fort at Drumanagh, to the south between Skerries and Rush, was long thought to be Iron Age in date based on the discovery of Roman material, including Gallo-Samian ware through ploughing in the 1970s and subsequent unauthorised metal-detecting that produced extensive metalwork from the Roman world (Baker 2018, 7). Small-scale archaeological excavations (Ministerial Consent C786/E004805) undertaken over two seasons, in 2018 and 2019, recovered worked flint that suggests evidence of Neolithic and Bronze Age activity, but also two antler bone combs, sherds from a late 1st–3rd century AD amphorae and the hilt of a La Tène sword, all indicating later Iron Age dates (Baker 2018, 40; 2019a, 18–19). Furthermore, radiocarbon dating of human remains confirmed a presence spanning the 2nd century BC to the 2nd century AD (Baker 2019a, 19). Overall, the coastal positioning of these sites would have facilitated the monitoring of boats and trading routes along the coastline, be it during the prehistoric or early historic period.

Christianity was introduced into Ireland in the 5th century AD, bringing with it the introduction of the country's earliest churches. The early medieval ecclesiastical centres that evolved were quite significant foundations, with concentrated settlement nearby. Bremore church (DU002-002002; RPS No. 13; see Sections 3.2 and 3.7) was reputed to be the early monastic site of *Lann Beachaire* (the church of the beekeeper), possibly founded by St Molaga in the 7th century and later developed as a manorial chapel. Little is known of the foundation of *Lann Beachaire*, however, and it has been linked with two different saints, Mo-laga or Mo-Lucé and Mo-Domnóc,

both of which are presented as students of St David in Wales (Bolger 2009, 28). The use of the Welsh term of church, '*Llan*' or '*Land*' in Irish, also suggests a connection with the Welsh church; this tradition is preserved in the local name for the area, *Lambeacher*, which also incorporates the Irish for beekeeper, *beachaire* (O'Carroll 2009, 79). *Lives of the Irish Saints* (O'Hanlon 1875) records the following image (Plate 13) and description:

> *In gratitude towards Molagga, the toparch assigned him a place, in Fingall, where he erected a church, and an annual tribute was paid for its support. It is said, our saint re-moved to this spot the bees, which were brought by St. Modhomnoc, from Wales. In consequence, this locality was afterwards named, Lann Beachaire, or, Church of the Bees. Some are of opinion, that this place is identical with Breemore, where the remains of a castle, belonging to a branch of the Barnewall family, and situated a little to the north of Balbriggan town, in the parish of Balrothery and barony of Balrothery East, in the county of Dublin, may be seen. Here too are the ruins of an old church, or chapel surrounded by a graveyard, still much used for interments*.

Plate 13: Ruins of Bremore, near Balbriggan, Co. Dublin (O'Hanlon 1875).

Early monastic sites are, however, generally defined by large ditches and a previous geophysical survey (Nicholas 2011) along with that undertaken in 2020 (Section 4) did not indicate the presence of any such ditches in the area. Furthermore, nothing to indicate early medieval occupation was identified during excavations at the castle in 2017 (Baker 2019b). This suggests that the church is the manorial church associated with the later medieval manorial complex of the Barnewall family, which was established here from the 14th century (see below). According to The School's Collection (Vol. 0783, 429) taken in the 1930s, the adjacent graveyard (DU002-002003) was closed about 46 years, with the last man buried there Mr. M. Baites of Back Lane, Balbriggan.

The 12th century arrival of the Anglo-Normans and medieval consolidation brought the parish system that survives today. Ecclesiastical centres flourished and there were new population influxes to villages such as Balrothery (Baker 2009, 95–7). As mentioned above, the churches and, more importantly, the profits of Balrothery, Bremore and Baldongan, were granted to the 13th-century Augustinian Priory of Tristernagh in Westmeath. Bremore church continued in use as a local church and burial ground even after the 16th century Reformation. Today the church and graveyard are in ruins and heavily overgrown (Plates 5 and 6).

Bremore Castle

This castle (DU002-002001; RPS No. 14; Plate 7; see Sections 3.2 and 3.7), within the western area of Bremore Regional Park, stands as a fortified house of possibly 16th century date, although it may contain earlier elements. A few references to Bremore survive from the 14th and 15th centuries, including references to the Rosselle or Rosel family in the *Gormanston Register* and *Calendar of Documents Relating to Ireland* in 1299–1399 (O'Carroll 2009, 79). These indicate that a manorial seat, most likely with an associated structure, probably existed from the end of the 13th century. During the 14th century the lands of Bremore passed to the Barnewall family, probably at the time that Wolfran de Barnewall married the daughter of Robert de Clahull in 1316 (*ibid*.). From the mid-16th century onwards, there are more frequent references to the Barnewalls of Bremore, who accumulated lands and offices despite being a minor branch of the Barnewall family based at Drimnagh, with Bremore Castle becoming the seat of a wealthy and influential family. In 1567, for example, it consisted of a castle, gardens, eight tenements, orchard and park. By 1640, Matthew Barnewall of Bremore was one of the major landowners in the county, although his leadership of Confederate forces in the area saw him attainted for treason in 1642 and in the Civil Survey of 1654–6 it is described as a 'Burnt Castle'. In 1725, the entire Barnewall estate was sold to settle debts and Bremore entered into the possession of the first Earl of Shelbourne, represented in Ireland by the Marquis of Lansdowne, with the Lansdowne family remaining the primary landowners until the 19th century (*ibid*., 81). Bremore Castle and adjacent lands were, however, occupied by Richard Cadell before 1736 and afterwards by Captain McCullough.

Austin Cooper visited the castle in 1783, by which time it was unoccupied, and he described it as follows with the accompanying sketch (Plate 14):

> '*…the castle of Bremore about a mile N. of Balbriggan is situated on a rising ground very near the sea and commands a delightful prospect therof. It seems rather a modern building with good limestone quoins, window frames, munnions etc, the door on the W, side is particularly neat, ornamented on each side with pilaster wch. support a suitable pediment in the space of wch are two coat of arms parted and pale Vizt-Ermine, a border engrailed on the sinister side-Barnewall and a fess between 5 martins 3 and 2, on the dexter side. The lower part of this castle is very strong and arched in a very irregular manner and the whole appears to me to have been not many years ago inhabited, Besides a number of garden walls and such like enclosures, still to be traced, are the walls of a Chapel in which is nothing remarkable…..*'

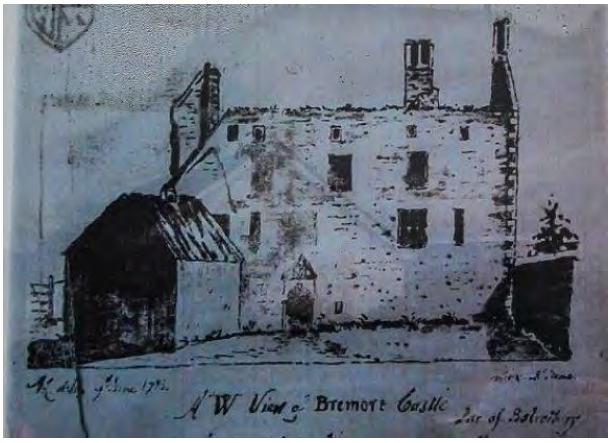

Plate 14: Sketch of Bremore Castle (west-facing elevation) by Austin Cooper, dated 1783

The *Dublin Penny Journal* for the year 1833 (No. 28, Vol. 1, 217) records Bremore Castle as 'recently taken down', suggesting the castle had been demolished, although it and the adjacent lands were leased to John King from that time until 1936, when the land was used for agriculture and modern farm buildings were erected. The part restoration and reconstruction of the site commenced in 1986,

with the earliest assessment of the ruins most likely carried out by Healy in 1985, followed by Heritage International Ireland that included consultants, David Newman Johnson and Leo Swan. Since 1994, with support from Fingal County Council and the Balbriggan and District Historical Society, in conjunction with a FAS training initiative, the fortified house underwent comprehensive reconstruction (Plate 7). Significant original fabric at ground floor level was consolidated and repaired. Test excavation in conjunction with this work was undertaken in 1995 and indicated considerable disturbance within Bremore Castle (see Section 3.4). It identified a series of walls that were probably used to divide the main hall at a later date, two stone-built channels, one associated with the garderobe and the other probably for drainage, and spreads of burnt material and charcoal, as well as large quantities of whelk and limpet, some animal bone and post-medieval pottery. A recent Conservation Plan for Bremore Castle (2013) was commissioned by Fingal County Council and this emphasised the need to ensure the protection, long-term survival, use and enhancement of the complex, including its sub-surface archaeological remains, in addition to promoting and interpreting the history of the site and its historic associations to the public. In 2011, a geophysical survey of three areas within and around Bremore Castle identified a concentration of anomalies suggesting remains associated with a possible medieval garden, including a potential well / water feature, possible pathways, drains and an enclosing wall (Target Archaeological Geophysics 2011). This informed a subsequent community excavation in 2017, directed by Fingal County Community Archaeologist, Christine Baker (see Section 3.4). The Bremore Castle Big Dig 2017 (licence no. 17E0302) comprised five trenches, four within the precinct of the walled garden and another to the east of Bremore Castle (Baker 2019b). The foundation of the southern wall of Bremore Castle was exposed, as was a previously unknown ditch close to the wall that contained 17th-century window glass, iron nails, animal bone and a range of pottery dating from both the medieval period and the 1650s to the 1730s. A grain of wheat from this ditch returned a radiocarbon date of cal. AD 1483–1641 (330 ± 25 BP; UBA-37371), suggesting this ditch was backfilled during a similar period to the construction/early use of Bremore Castle (*ibid*., 53, 103). A metalled surface exposed in Trenches 1 and 5 appeared to extend across the walled garden and associated pottery indicated that it was in place at least by the early 1600s, with an additional section uncovered in Trench 4, outside the garden, suggesting that Bremore Castle may have been surrounded by a considerable yard surface (*ibid*. 54). The walled garden, with internal plot divisions, was laid out by the late 1830s (see Section 3.5).

Directly north of Bremore Castle, archaeological investigations in 2001 confirmed that the area was in agricultural use since the medieval period (O'Carroll 2009, 82–6). The remnants of a possible manure heap containing 13th- to 14th-century pottery was uncovered, along with early field boundaries, wells or cisterns used to irrigate crops that were deliberately backfilled with refuse including animal bone, and furrows containing cereal grains. An early metalled surface representing a laneway extending from the Balbriggan–Dublin road into the castle was also uncovered, perhaps representing a second entrance to the castle but also serving wider yard-like areas at the eastern and western ends, including the remains of a possible mud-walled cabin to the east. This evidence suggests that the wider area was occupied by cabins along the lane, most likely representing the homes of those who worked the lands around the castle, lands that were sub-divided into plots. Later, in the late 16th to early 17th centuries, there is evidence for landscaping associated with the estate, including transforming fields into parkland or perhaps an orchard. Post-medieval pottery was a mixture of local and imported wares, from England, France, Germany and the Low Countries. A recovered cannonball most likely related to the attack on the castle during the Confederate Wars, while a Mass Dial, no later than 15th-century in date, probably came from the nearby manorial chapel where it would have been used to mark the time of liturgical services.

Post-medieval to early modern period

There is no consensus about when the foundation of Balbriggan town occurred, other than there may always have been a small settlement of fishermen, weavers and some sort of agricultural trade post. By the 18th century it was described as a small village with

a little harbour. In 1735, Alexander Hamilton had acquired land in the townland of Knock (near Balrothery village) and the townland of Little Balbriggan, where he later constructed Hampton Hall (adjacent to the present Ardgillan Demesne), and developed the family demesne (Sorensen & Skyvova 2017). In 1746, he acquired the townland of Big Balbriggan, thus providing a site for the growth of the later town of Balbriggan. It subsequently developed as a place of manufacturing and commercial importance due to his son, Baron Hamilton (1731–1793), who in 1780 introduced cotton manufacturing. Prior to this, during the 1760s, he had transformed the existing harbour into a substantial pier and formal harbour in order to increase Balbriggan's potential as a commercial port. In 1768, the same family-built Balbriggan lighthouse on the east pier, with an adjoining store building added in 1821 (John Cronin & Associates 2010, 17–18)

A Martello Tower (DU002-004; RPS No. 17; Plates 3 and 8; see Sections 3.2 and 3.7) is also located at the Black Rocks, within Bremore Regional Park, and represents a coastal defensive tower built in 1805, during the Napoleonic Wars (1799–1815). It is one of 28 such towers that were built along the north Wicklow and Dublin coastline between 1804 and 1805, with the location chosen in order to defend the pier and cove of Balbriggan (Bolton 2008). Martello towers were designed to function as gun towers to defend the coast against enemy shipping and the landing of troops; a gun was mounted on the tower and additional guns were often present in adjacent batteries (O'Sullivan & Breen 2007, 216). While the effectiveness of firing on ships offshore was questioned and one of the factors these sites were eventually abandoned they would have been useful in repelling an infantry landing (*ibid*.). These monuments have a relatively uniform design; circular two-storey tower with thick stone walls and entry gained through a first-floor doorway leading to the living quarters. The Balbriggan tower was armed with a 24-pounder cannon and it was reportedly built on an earlier mound (DU002-017; see Section 3.2). In 1823, as with other towers in the Dublin region, Balbriggan Martello Tower was taken over by the Preventive Water Guard (later the Coastguard Service) to counteract smuggling operations common in Dublin Bay at the time. The Guard gradually adopted other duties, including taking responsibility for shipwrecks and training with life-saving equipment; training with a new 'Life-saving Rocket Apparatus' was recorded at Balbriggan Martello Tower in 1873 by the *Irish Times*, in the aftermath of the wreck of the *Sarah* in winter storms (see below; Bolton 2008). The Martello Tower at Balbriggan overlooks King's Strand and an 1830 Board of Ordnance drawing shows a pathway passing to the rear of the tower, while an 1852 drawing shows a more formal site layout, with four boundary stones in position, and an 1862 War Department drawing shows the northern boundary of as 'undefined', fencing along the approach road from the south and no ancillary structures within the site (*ibid*.). An early 1900s photo from the Valentine Collection (available in the National Library of Ireland) shows that the tower and the nearby Bath house was in very good condition at that time (Plate 15a).

The Bath house is the larger of two nearby buildings and was used for many years as a Sea Bath House, with the smaller building used as a boat house (Plate 15b). An associated pier / diving board extended into the Irish Sea but was removed in the mid-1990s. Subsequently, these two buildings (RPS No. 18) were used as a Lifeboat Station, one of two along this coastal area, with its sister station (RPS No. 35) located beneath the railway viaduct. Sea bathing along the foreshore and in sheltered coves had always been popular with all classes of Dublin society but in the eighteenth century when there was a greater degree of affluence and leisure for certain sections of the populace, there was a rise in bathing houses, which had the advantage of providing privacy in changing and security for people's possessions (Ruddy 2009). From the early 1800s, Balbriggan was known as a fashionable spa town to visit for the summer season, made accessible by the building of the railway viaduct, which also led to the provision of a Promenade, creating a social and leisure space at the beach front; the official *Handbook of the Dublin and Drogheda Railway Company*, published in 1844, spoke of 'the newly fashionable resort of Balbriggan' (Sorensen & Skyvova 2017).

Plates 15a–b: Black Rocks bathing area, showing Martello Tower, Bath House and Boat House, including pier/diving board (© Historical Picture Archive & National Library of Ireland, from Sorensen & Skyvova 2017).

The nearby parkland once contained an impressive Coast Guard Station (see Figure 9), built around 1864 but destroyed in 1923 during the Irish Civil War. The Coastguard Service was established in Ireland in 1824 and its initial purpose was primarily revenue protection but this changed in 1856 with its transfer to the Admiralty, which saw the force as providing the basis for a naval reserve (Symes 2002/3). Ultimately it was responsible for a diverse range of functions, from control of smuggling to life saving to famine relief and receivers of wrecks. By 1860 there were 200 Coastguard stations around the coast of Ireland and up to the late 20th century these typically consisted of a terrace of cottages/houses, a watch-tower, a boat-house, an equipment store, earth-closets, wash-houses and outhouses (O'Sullivan & Downey 2013, 31). From the cartographic and photographic evidence, it is likely that Balbriggan Coast Guard Station had a terrace of at least eight two-story houses with shared front porch entrances, some with small buildings to the rear, with a watch-tower and additional buildings to the rear, perhaps for storage, at the northeastern end of the terrace (Plate 16). A flagstaff was positioned on the southeastern side of the Coastguard station and a well on the western side.

Plate 16: Balbriggan Coast Guard Station c. 1920 (© David Brangan).

On 4 February 1873, a schooner called the Sarah Ann, carrying coal from Runcorn in Cheshire, England, to Balbriggan, was wrecked after drifting into the rocks of the promontory in front of the coastguard station on which the Martello Tower stands. A lifeboat maned by five coastguards and five volunteers was deployed from Skerries to try to save the two crew members but tragedy struck and eight men were drowned; the crew of the Sarah Ann along with one coastguard and five volunteers from Skerries. The *Irish Times* recorded that the wreck had been carried high up on the rocks under the Martello Tower and that 'a number of people gathering the wood and coal which was strewn on the beach, and the men working on all that remained of the Sarah, and bringing ashore any gear and other property of value'. On 26 February1875, the Belle Hill (or Bell Hill), a barque ship travelling from Liverpool to South America, was also wrecked off Balbriggan with a crew of 15 lost at sea (NMS Wreck No. W00543). These two shipwrecks led to the construction in 1889 of the R.N.L.I lifeboat station (RPS No. 35; NIAH No. 11305020; see Figure 3 and Section 3.7) in Balbriggan Harbour beneath the railway viaduct, at the southern end of the Bremore Regional Park.

Lewis in 1837 noted Balbriggan as a seaport, market and post village and a chapelry, with the inhabitants partly employed in fishery, but principally in the manufacture of cotton in two large factories, the related machinery being worked by steam-engines and water-wheels. Lewis also noted that 'the Drogheda or Grand Northern Trunk railway from Dublin, for which an act has been obtained, is intended to pass along the shore close to the village and to the east of the church'. The route of this railway was highly influenced by George Alexander Hamilton MP, grandson of Baron Hamilton, including the construction of the 11-arch granite viaduct spanning Balbriggan Harbour. Hamilton was also chairman of the Dublin to Drogheda Railway Company (DDR), formed following advocacy in 1835 from Thomas Brodigan of Pilton House, Drogheda (Osgood 2019). Hamilton also chaired the Relief Committee in the Balrothery Union of parishes during the Great Famine, which was the backdrop to the construction of the DDR (*ibid*.). The coastal route was surveyed by eminent Victorian engineer, William Cubitt, and from 1840 the chief engineer was John Macneil of County Louth. The railway line opened on May 25 1844. A single-arch railway bridge (RPS 12; see Section 3.7) within Bremore Regional Park was also constructed at this time to span a pathway that extended to the beach/coast. This pathway developed from a road that branched off the R123 and extended along the northern side of the grounds of Bremore Castle before turning northwards. Nearly all the 19th-century overbridges on the Dublin and Belfast line had elliptical arches of either brick or cut limestone, many of which were later removed and replaced with concrete ones (Rynne 2015, 369–70). The bridge in Balbriggan, comprised of granite, is therefore an important surviving example of these early bridges.

Private industry, such as hosiery, linen and cotton manufacturing, was also very evident in this area from the 18th to the early 21st centuries. There is a history of small-scale production of fine hosiery in the Balrothery area since at least the 1740s, with a Mr. John Mathews employing a large number of workers knitting fine silk stockings for 25 years, subsequently the trade was taken up by a Mr. Fullam, who introduced 'Economies', whereby the ankle portion and the top portion of the stockings were made from cotton and the remaining area from silk (Benton & Curtis 1999). The business was acquired by a Mr. Hatton in 1775 and in 1780 he was joined by his cousin, Joseph Smyth, and the first Smyth & Co., known locally as Smyco, was established. The business moved to Balbriggan proper at this time and the company went on to trade for approximately 200 years, developing a reputation for excellence, quality and style across the world, including with Queen Victoria. Manufacturers in England also looked to Smyth & Co. of Balbriggan for inspiration and indeed, Thomas Ogle, from Preston in Lancashire, established a flax mill in Balbriggan, later purchased by the Gallen family. In 1867 a fine factory premises for Smyth & Co. was built in proximity to the Great Northern Railway Station and fitted with the most up-to-date machinery. This factory was, however, burnt to the ground in 1882 but was instantly rebuilt on a larger scale and again fitted with all the latest machinery available in Europe. Skilled labour that was not fully utilised during the rebuilding programme did, however, attract the attention of an English firm, Deeds, Templar & Co., who established themselves in the area just to the east of the railway, at Sea banks, and traded as the Balbriggan Sea Mills Hosiery Company from 1884 to its destruction in 1920 at the hands of the Black and Tans (Plates 17 and 18). While the fortunes of Smyth & Co. fluctuated over these years, due to industrial action, the company going public and the McKinley tariff on goods entering America, by 1897 it was found that the already extensive premises built during the 1880s were by no means sufficiently large to deal with the constantly increasing trade. They built a very elaborate factory across the street, at the north side of Freeman's Row (Railway Street), and connected with the large premises over the street by an enclosed footbridge. As mentioned above, while the premises of the Balbriggan Sea Mills Hosiery Company were destroyed in 1920, the Smyth & Co. factory, between Clonard Street and Seabanks, was saved by the intervention of a Mr. Gorman, Dr Fullam and Constables McGlynn and Sexton. Indeed, by the time of independence Smyth & Co. was owned by a local Protestant unionist family, the Whytes (Barry 2017, 6). In the new Free State, Smyth & Co. saw a boom in profits due to the imposition of tariffs on imported hosiery. In 1932 Messrs Stephenson & Co. of Newtownards, manufacturers of the Shamrock brand of hosiery and underwear, commenced work on the site of the old Balbriggan Sea Mills Hosiery Company until its closure in the 1980s. A knowledge of calico printing was introduced

into Europe from India in the early 17th century but it was not practiced commercially for another one hundred years; in 1764 Hugh Holmes established a cotton printing works at Richardstown, near Ardee in County Louth, while other firms operated in County Dublin, at Palmerstown, Islandbridge and Balbriggan (Mac An Bhaird 1967). As a rule, printing operations worked separately from the material making operations but occasionally combinations were formed; in 1787, for example, O'Brien and Comerfords, calico and cotton manufacturers of Balbriggan entered into an association with Mr. Edward Clarke, a proprietor of linen printing works at Palmerstown 'for the purpose of carrying on the united business of manufacturing and printing' (Longfield & Leask 1950, 134). Furthermore, the establishment of calico printing firm, Messers. Smith & Co., at Mosney, Co. Meath, in 1786 was influenced by the nearby availability of calico and cotton from Balbriggan.

Plate 17: Deeds, Templar & Co. Balbriggan Sea Mills Hosiery Company, and later Stephenson's Linen mill, with Balbriggan Coast Guard Station to right (© Balbriggan Historical Society).

Plate 18: The American Committee for Relief in Ireland, c. 1921, most likely inspecting the remains of the Balbriggan Sea Mills Hosiery Company (Hogan Wilson Collection, National Library of Ireland ref. HOGW 51).

Additional post-medieval manufacturing in the area comprised brick making. The Brick Works are illustrated on the 1st edition 6-inch OS map of 1843 (surveyed 1836) as shaded areas labelled Brick Yard and Brick Field, with only the former within the area of Bremore Regional Park (see Section 3.5). On the 25-inch OS map of 1908 (surveyed 1906) the Brick Field is labelled Clay Pit and extended further to the southwest, while the Brick Yard is labelled Brick Works and contains several buildings including two circular kilns. As early as the 1690s, there were 'brick Kills' at Clontarf, County Dublin, and by the early 18th century, the clay of the Sandymount area was being used for building in the area around Merrion Square (Rynne 2015, 166). Even the smallest brick fields established during the period c. 1750–1830 would generally cover a few acres, with the clay normally dug out in the first four months of the year to allow it to weather before brick production took place around April to September (*ibid*.). From the 17th to the early 20th century bricks were generally fired in a clamp kiln, a rectangular arrangement consisting of alternate courses of bricks, however, by the early 1850s, more permanent kiln structures were beginning to be built including intermittent, up-draught beehive kilns that are circular in plan, as well as Hoffman kilns, in which drying and firing was a continuous process; the early forms of the latter kiln were also circular in plan (*ibid*., 169–170). The site for the Balbriggan brick works was most likely chosen for its proximity to the harbour, as this would have facilitated transporting the bulky cargo, and it is possible that the brick field owner(s) also possessed a small fleet of lighters and mud boats (*ibid*., 172). With the opening of the railway in 1844 it is likely that transport moved to freight trains. The early 1900s photo from the Valentine Collection detailed above (Plate 15a) also illustrates what looks like the chimney of a Hoffman kiln; one such example at Castle Espie,

Co. Down, dated to 1866, comprised a chimney 172 ft [52.4m] high with 24 compartments, each capable of containing 100 tons of limestone and with the capacity to manufacture 600 tons of lime per week (O'Sullivan & Downey 2005, 22). Hoffman kilns were used for both lime-burning and brick production during this period but given the kilns location it may have related to the brick works in this area.

Along with the factory of the Balbriggan Sea Mills Hosiery Company, the Sack of Balbriggan on 20 September 1920, resulted in the destruction of nearly 50 houses and several grocery premises and pubs by British forces (Black and Tans) for an IRA attack earlier in the day, when District Inspector Burke and his brother, Sergeant Burke, were shot dead while in Smyth's pub. Two men were beaten to death and many hundreds were put out of their homes and out of work.

Local Placenames

The Schools Collection (Vol. 0783, 359) contains an account of named fields in Balbriggan, at least some of which are likely to be within the area of Bremore Regional Park. The informant was a J. Reynolds, aged 78, from Drogheda Street in Balbriggan, and the account was taken in the late 1930s:

> There are a few fields in Balbriggan called by names, some by name of the owner, but some have very old names. A well-known one is the tower-field in which stands a Martello tower. The Moate-field is so called because in it is a moat. This field is situated along the coast and is between here and the Delvin River. Near this is the Wishing Chair. The latter is a rock shaped like an arm-chair in which people sit and wish. The rock field at the Flat-Banks is so called because in the centre of it is a rock shaped like a pyramid. The field beside the tower-field is called the Bull-field. The only hill around here is Clonard Hill. In the middle of Sharkey's field is a lone bush. In the rocks of the Bower is pointed out the cave, known as Isaac's Hole. Isaac is supposed to have been a smuggler who murdered his wife. The common names of pools are: Minister's, Angel's, Devil's and the Mearn.

3.2 Record of Monuments and Places

The park contains ten Recorded Monuments (Figure 2), listed within the Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR). These comprise a later medieval fortified house (Bremore Castle; DU002-002001) and an associated church (St Molaga's) and graveyard that includes architectural fragments and a carved cross (DU002-002002–6). The late medieval carved cross (DU002-002004-) was taken into storage at Ardgillan Castle in 2009. The remaining sites are to the southeast and consist of two mounds (DU002-0023 and DU002-017), an enclosure (DU002-016) and a Martello tower (DU002-004). The surrounding landscape is also rich in recorded monuments ranging from a Neolithic house and prehistoric burnt mound to numerous enclosures, cereal-drying kilns and an ecclesiastical complex.

The following is a list of the recorded monuments within the Bremore Regional Park. These descriptions are derived from the National Monuments Service Archaeological Survey Database (http://webgis.archaeology.ie/historicenvironment/):

RMP No.	Townland	Class/Site Type	Description
DU002-002001-	Bremore	House - fortified house	Located north of Balbriggan town, this is the manorial seat of the Barnewall family from 14th-century. Described in the Civil survey (1654-6) as a 'burnt castle'. The castle is thought to have been under construction by 1546 since a bridal mantlepiece

RMP No.	Townland	Class/Site Type	Description
			tree, part of the hall chimney piece, which annunciates the marriage of James Barnewall to Margaret Lawrence, took place around that year. The castle suffered badly in the Confederate wars in 1641 but was later renovated. Comprises an L-shaped range of buildings, rising to two-storeys (H 4m) with slight external batter. The main E-W block (ext. dims. L22m, Wth 10.5m, Max. Wth of W wall 1.98m) is built of coursed masonry and dressed limestone quoins. A barrel-vault over ground floor shows traces of wicker-centring. Opening in S wall of E-W range gives access to two compartments. W compartment (dims. 15m E-W, 16m N-S) lit by slit ope and rectangular, chamfered limestone ope on S wall. Corbels for 1st floor visible in W compartment. E compartment of E-W range has two chambers. S chamber has bread kiln. N-S range (dims.24m N-S, 12m E-W) lit by 16th-century round-headed, chamfered limestone ope. Gun loop in E wall of N-S range. A drawing by Austin Cooper dated 1783 shows the west elevation. Above the first-floor hall were two further upper storeys, forming four floors in all. At the N end two small vaulted chambers and a stone spiral stair are situated on each floor and these possess an extra upper floor, the whole rising above the main block to form a watch tower. There is a small projecting garderobe tower midway along the E side. Currently being reimagined by Fingal County Council, the building is now five storeys (only part of ground floor original) with various decorative features, embellishments and turrets. Monitoring in 1995, revealed stone-built channels associated with a garderobe and drainage. As part of the Conservation Plan undertaken in 2011/12, a resistivity survey (Licence No. 11R0038) was carried out by Target Ltd. within the walled garden at the eastern side of the castle and extended to the adjacent playing pitch. A concentration of anomalies, suggesting buried remains, was identified within the walled garden. These may represent remains including a possible well/water feature, pathways, and internal divisions. A portion of the possible foundation of the medieval walled enclosure was recorded in this area. To the east of the castle a potential further access to Bremore Castle may be present.
DU002-002002-	Bremore	Church	In disused graveyard S of Bremore fortified house (DU002-002001-). This is reputed to be the early monastic site of 'Lann Beachaire' possibly founded by St. Molaga in the 7th-century. Traditionally associated with the transportation of bees from Wales to Ireland by St Modomnócc. The 1992 describes the remains are of a late medieval church, which was the manorial chapel for Bremore, and comprised a rectangular featureless structure with undivided nave and chancel (13.1m E-W, 7m N-S, max. wall H 3m) and a small extension to the W (orientated NE-SW). Built throughout of coursed limestone masonry. Remains of doorway traceable in the N wall of the nave, which is incorporated into a garden wall. Lit by plain loop in S wall. Buttress near E end of S wall. Now extensively overgrown with only southern church wall discernible. Fragments of decorated seventeenth-century stonework were cemented into place along interior of southern church wall, including a lintel (DU002-002006-) dated to 1689 and decorated with emblems of the Passion; two double-light decorated window heads (DU002-002005-). A carved crucifixion (DU002-002004-) has since been removed to Ardgillan Castle. A plain lintel also lies on the ground adjacent to the gate piers at the entrance to the graveyard. A mass dial thought to have come from the manorial chapel was recovered during excavations to the north of the site (DU002-014----).
DU002-002003-	Bremore	Graveyard	This is a disused graveyard (L 40m, Wth28m) SW of Bremore fortified house (DU002-002001-) which is reputed to be the early monastic site of 'Lann Beachaire' possibly founded by St. Molaga in the 7th-century. It is completely overgrown with elders and briars but a masonry wall is visible along the N side of the site. In the graveyard are remains of a church (DU002-002002-) and a finely carved and sculptured door lintel with instruments of the passion, dated 1689 (Wth 0.45m, D. 0.53m) (DU002-002-006-). A survey of the headstones was undertaken in 1993 (Egan). As part of the Conservation Plan undertaken in 2011/12, an electrical resistivity survey (Detection Licence No. 11R0038) was carried out by Target Ltd. within the walled garden immediately north of the graveyard. No indication of an ecclesiastical enclosure associated with the early medieval foundation associated with St Molaga's graveyard was identified.
DU002-002004-	Bremore	Cross	A late medieval carving of the Crucifixion on a cross was affixed to the top of the decorated lintel (DU002-002006-) near the remains of the late-medieval church

RMP No.	Townland	Class/Site Type	Description
			(DU002-002002-). In 2009, this cross was taken into storage at Ardgillan Castle (see DU005-078----).
DU002-002005-	Bremore	Architectural fragment	Fragments of two double ogee headed windows with curly-headed angels depicted at arch. East has tulips, west rosettes. Decoration similar to that on 1689 architectural fragment (DU002-002006-). Both set on a concrete plinth adjacent to church wall (DU002-002002-).
DU002-002006-	Bremore	Architectural fragment	A chimney-piece stone dated to 1689 with emblems of the passion has been set against the extant wall of the remains of the late medieval church (DU002-002002-) on a concrete plinth. Slabs were cemented on top.
DU002-003----	Bremore	Mound	Situated on a slight slope at the N bank of the river near cliff edge. Pedestrian access to beach runs by it to north, drainage ditch to south. Comprises an overgrown oval, flat-topped mound (basal diam.9m, top 3m E-W, 2.2m N-S, H 2.5m).
DU002-004----	Tankardstown	Martello tower	Located on a slight promontory, just north of Balbriggan town. Area to west and south landscaped into park. It was built in 1805 'for the defence of the Pier and Cove at Balbriggan' (Bolton *et al*. 2012, 180). It was manned with a full complement of Royal Artillerymen until the end of the Napoleonic Wars, after which it was manned by a local invalid Gunner (*ibid*.). This is a squat tower with a base batter. Doorway from first floor is inaccessible. There are corbels over entrance and musket hole pairs either side of doorway. Recess for canon is visible on west side. Central parapet is damaged. A photograph from the Valentine collection dated sometime between 1929 and 1950 shows the tower with parapet, render, door and window opening, flagstaff and chimney. The parapet was dismantled and the stone is alleged to have been used in the construction of Nos. 67–72 Drogheda Street, Balbriggan (*ibid*.). Manuscript of 1804 refers to the Martello tower being built on 'part of an old Danish fort' (DU002-017).
DU002-016----	Tankardstown	Enclosure	The Irish Marine Institute coastal photography (1997) shows a large circular, bivallate enclosure on the coast (pers. comm. Mr Colin Byrne, Briarleas, County Meath).
DU002-017----	Tankardstown	Mound	The martello tower (DU002-004----) is built on the site of a pre-existing mound shown on an early 19th century map by Duncan. This map was drawn for a proposed post road between Dublin and Derry and is held in the National Archive (pers. comm. Mr Colin Byrne, Briarleas, County Meath). There is also a reference to the Martello tower being built on 'part of an old Danish fort' in an 1804 manuscript.

3.3 Stray Archaeological Finds

No stray finds are recorded in the topographical files of the National Museum for the townlands of Bremore, Tankardstown and Balbriggan. Several objects are, however, recorded from townlands in the environs of Bremore Regional Park. These finds relate to and reflect archaeological activity in the wider area:

NMI Reg.	Location	Find	Circumstances
1958:148	Gormanston	Worked flint nodule.	Not known
P.1950:32	Naul	Flint flake ('Bann' type).	Not known
1978:13–19	Courtlough	Chert flake; flint thumbnail scraper; flint hollow scraper; 4 waste flint flakes.	Not known
1939:1144–1148	Courtlough	Food Vessel & fragments; human bone (cremated); clay from interior of Food Vessel; decorated stone (north stone of cist).	Not known
1965:44	Ardla	Pointed stone flake.	Not known
IA/133/2005	Townparks	Flint.	Not known
1973:93–187	Walshestown	83 misc rolled flint pebbles, flakes, etc.; 7 quartz pebbles; large flint pebble, irregular flint flake.	Not known

3.4 Previous Archaeological Investigations

There have been a number of previous archaeological assessments carried out both within and adjacent to Bremore Regional Park. Details of these archaeological investigations, derived from the *Summary Accounts of Archaeological Excavations in Ireland* (www.excavations.ie), are outlined below:

Site	Licence No.	RMP No.	Director(s)	Investigation Type	Site Type
Bremore Castle	95E0183	DU002-002001- to 006-	Daniel Leo Swan	Archaeological test excavation and monitoring.	Medieval and post-medieval features.
Mill Street / George's Hill	99E0727	n/a	Daniel Leo Swan	Archaeological test excavation, monitoring and survey.	Post-medieval/modern industrial cotton factory.
Bremore	01E0311	DU002-002001- to 006-	Finola O'Carroll	Archaeological test excavation.	Late medieval and early post-medieval features.
Bremore	01E0370	DU002-002001- to 006-	Finola O'Carroll	Archaeological excavation.	Late medieval and early post-medieval features.
Hamlet Lane	02E0165	n/a	Teresa Bolger	Archaeological test excavation.	Area of *in situ* burning of unknown date.
Balbriggan Harbour	03E1920	n/a	Georgina Scally	Archaeological test excavation.	Post-medieval/modern industrial coal works.
Bremore Regional Park	13E0301	DU002-002001- to 006-	Aidan O'Connell	Archaeological test excavation and monitoring.	No archaeological significance.
Bremore Castle	17E0302	DU002-002001- to 006-	Christine Baker	Archaeological excavation.	Medieval and post-medieval features.
Bremore Castle	17E0503	DU002-002001- to 006-	Christine Baker	Archaeological monitoring.	No archaeological significance.

As outlined in Section 3.1, previous archaeological investigations have taken place at Bremore Castle. In 1995, test excavations examined the deposits within the three main compartments of the castle interior (Licence no. 95E0183), revealing spreads of burnt material, charcoal, a series of walls within the 'main hall', most of which were later than the original construction phase. Two stone-built drainage channels that appeared to form part of the original structure were revealed during subsequent monitoring, the larger of which was associated with the garderobe. The only finds consisted of 17th- to early 20th-century pottery, with bone and shell, including large quantities of whelk and limpet, also recovered. In July 2017, excavations concentrated within the walled garden took place over 13 days under the direction of Christine Baker (Licence no. 17E0302). This work targeted the results of a geophysical survey undertaken in 2011, confirming the presence of a Victorian pathway evident on that survey, but also established the presence of a previously unknown ditch close to the surviving southern wall of Bremore Castle. This ditch had been backfilled in the 17th century and it may have been contemporary with a metalled surface that extended throughout the walled garden. In contrast to the previous investigation, numerous sherds of 12th–15th-century medieval pottery were recovered, including a basal sherd of imported Saintonge ware, along with many post-medieval to modern finds. In October 2017, archaeological monitoring was also undertaken at the site (Licence no. 17E0503) but nothing of archaeological significance was noted.

In 2001, archaeological test excavations (Licence no. 01E0311) in advance of a large-scale housing development (Cardy Rock), directly north of Bremore Castle, identified medieval and post-medieval features, including field drains and furrows, as well as a large amount of medieval pottery and a six-pound cannonball. Subsequent excavations (Licence no. 01E0370) by Finola O'Carroll confirmed part of a medieval field system comprising two parallel ditches set 50m apart and extending for at least 150m east–west across the field, later replaced by post-medieval drains. This represented a plot of land that had been densely cultivated and contained a number of separate furrow systems, running both parallel and perpendicular to the ditches. To the south, parallel to the two ditches, was a regular metalled surface representing the remnants of a path or laneway. Two Elizabethan coins, dating from 1601–2, were recovered from this surface. Closer to the castle, a pit contemporary with the cobbling contained a large amount of late medieval pottery. A second pit, adjacent the southern ditch, also contained a large quantity of medieval pottery, as well as a slate sundial of late medieval date. The possible footprint of a small structure, of either medieval or early post-medieval date, was also exposed between these two pits. Several post-medieval features were also uncovered, including a mortared stone wall with an associated stone drain and cobbled surface, a number of pits, concentrations of brick, rubble, mortar and slate that may represent debris from the castle's destruction, and a concentration of slag and iron-rich soil suggesting small-scale industrial activity. The pottery from the site comprised a large proportion of Leinster Cooking Ware, as well as some ridge tiles of North Devon Ware which may have originally been attached to the castle. Within Bremore Regional Park, directly east of Bremore Castle, test excavations (Licence no. 13E0301) were also undertaken in 2013 in advance of the construction of an all-weather pitch, but no archaeological features or deposits were uncovered.

At Balbriggan Harbour, test excavations (Licence no. 03E1920) in a coal yard, known locally as Griffin and Tallon's coal yard, uncovered the partition walls of the coal yard and a well-laid cobble floor, of probable late 19th century date. Test excavations (Licence no. 99E0727) undertaken in an area between Mill Street and George's Hill, where industrial activity from the late 18th century onwards centred around the Hamilton (later Gallen) cotton works, identified some waste pits and boundary features of 19th- and 20th-century date, an area of *in situ* burning and a millpond. This investigation also took a detailed record of the industrial heritage preserved at the site, including the millpond, feeder channel, two well-preserved sluice-gates, a spillway, weaving sheds and outbuildings. In 2002, a site at Hamlet Lane, near the medieval manor at Bremore, was also subject to test excavations (Licence no. 02E0165), but the only find was a small area of *in situ* burning of unknown date.

3.5 Cartographic Review

The townlands of Bremore (*Brí Mhór*), Tankardstown (*Baile Thancaird*) and Balbriggan (*Baile Brigín*) are all located within the civil parish of Balrothery and the barony of Balrothery East. Bremore is within the Electoral Division of Balbriggan Rural, while Tankardstown and Balbriggan are within Balbriggan Urban.

Due to a lack of detail, an examination of the pre-Ordnance Survey mapping for the area reveals little about Bremore Regional Park. The townlands of Bremore and Tankardstown are named on the Down Survey baronial map (1654–6) of 'Balrudderry', as are the 'Great Farme of Ballibriggan' and the 'Little Farme of Ballibriggan' (Figure 4). These areas are also depicted on the parish map of 'Balrudderry' and the associated terrier (written description) records the following:

> In the towne of Bremore is a towne called Newhaven a towne of fishing; and a stone house out of repaire with an orchard and some ash trees in Tankardstowne A farme house: in Stevenstowne there stands a corn mill in repaire through which there turns a small streame coming out of Balbroderry Bog and emptys itself into the sea in the knock there stands a stone house in repaire and an orchard in Little Farme of Ballibrigan there stands another mill; and in Balruderry there hath beene a faire towne; the Castle is standing still and some old walls.

Rocque's map of 1760 (Figure 5) depicts a sparsely occupied landscape, although the site of Bremore Castle and perhaps St Molaga's Church are illustrated but not named, while a further two buildings to the east and southeast may represent outlying structures. These are perhaps akin to the mud-walled cabin exposed north of Bremore Castle in 2001 and assigned to the 16th–17th century occupation of the site when it is likely that cabins positioned along the surrounding lanes were the houses of those that worked the lands around the castle, possibly using plots in the field to provide for themselves and the castle inhabitants (O'Carroll 2009, 84). A road is also depicted on Rocque's map, extending northwards from the castle towards 'New Haven'. Taylor and Skinner's *Maps of the Roads of Ireland* (1777) also offers little insight into Bremore Regional Park (Figure 6) although it does record 'Braemore Castle' as in ruins.

The 1st edition 6-inch Ordnance Survey (OS) map (1843) is far more detailed than the earlier maps; in the townland of Bremore it depicts the chapel (in ruins), the graveyard and the castle, with additional buildings to the north and west, as well as the walled garden to the south and a 'thrashing machine' to the northeast (Figure 8). Threshers powered by a horse gin (or a horse walk) were used on farms in the 18th and 19th century, but were frequently broken up and removed with the arrival of steam driven threshers and subsequently tractors in the early 20th century (Gillespie 2007, 22). The walled garden appears to be divided into nine cultivation plots but no access points or paths are evident. The northern and southern plots are rectangular and narrower than the middle plots; the middle eastern and westernmost plots appear empty, perhaps reflecting seasonal crop variation. Further south, in the townland of Tankardstown, the Martello Tower is named, along with a Brick Yard and Brick Field. The latter indicate that this area was previously used for the extraction of clay to create bricks, a practice that was common in the late 18th and 19th centuries. This manufacturing tradition is also echoed in the nearby Brick Lane. The location of mound DU002-003 is also indicated on the 1st edition 6-inch map by a lightly shaded area and the site of enclosure DU002-016 has some light hachuring, with the eastern field boundary depicted as slightly curving. Further south, this map also illustrates the strip of land along the coastline that was later developed to build the railway.

Griffith's Valuation of 1847–1864 (Figure 7) records the northern area of Bremore Regional Park, within the townland of Bremore, as occupied by the Marquis of Lansdowne with John King named as the immediate lessor for the castle and surrounding lands, including the chapel (in ruins), graveyard and 'thrashing machine'. Griffith's Valuation records the central and southern areas of Bremore Park, within the townland of Tankardstown, as occupied by George A. Hamilton, except for the Martello Tower and land, which was owned by the Board of Ordnance and occupied by the Royal Artillery corps. Land north of the tower (1) was leased to R.H. Frith, while land directly to the south was leased to John Quin (4) or vacant (2B) and further south some land, 'offices' and 'Gracefield House' (17) was leased to a Rev. Courtney Turner. Land around the tower was also leased to Chas. & Thos. Comiskey for use as a brick-yard (2Ab). The southern extent of Bremore Regional Park, within the townland of Balbriggan, is recorded as along the Balbriggan Estuary and under the Dublin and Drogheda Railway Company.

The 25-inch map (1908) depicts the Great Northern Railway (Ireland) traversing Bremore Regional Park (Figure 9). It also depicts the Railway Station building (see below), as well as the railway bridge (RPS No. 12; see Section 3.7) and a level crossing within the park. The latter intersects with a footpath that extends from Bremore Castle in the west to the site of a well to the east, positioned on the cliff edge. This well is also illustrated on the 6-inch OS map (1843) but is not labelled, but the footpath is not indicated. The chapel (in ruins), the graveyard and the castle (in ruins) are also depicted on the 25-inch map. Not all of the buildings depicted on the 6-inch map are still present and while the location of the 'thrashing machine' is marked it is no longer labelled, suggesting it may have gone out of use by this time. The area of the walled garden is still depicted as a demarcated space but there is no detail of the plots provided. In the townland of Tankardstown to the south, the Martello Tower is depicted, but also to the northwest the Bath's and Boat House are detailed. To the southwest, Brick Works are illustrated as a series of buildings and circular kilns, and further to the southwest, on the western side of the railway track, a large, irregular-shaped area is depicted as a Clay Pit. On the southern side of a road that runs south of the Brick Works up to the Martello Tower the Coastguard Station is depicted, with an adjacent well and flagstaff. To the south

are a series of buildings labelled Hosiery Factory, representing the premises of the Balbriggan Sea Mills Hosiery Company (see Section 3.1); the only upstanding remains today comprise a freestanding red brick industrial chimney stack to the north (RPS No. 19; see Section 3.7). This map also depicts the site of the newly built Loreto Convent (on the former Gracefield House), as well as the Railway Station Building (RPS No. 30) built in 1853, the nearby Station Master's House (RPS No. 31) built c. 1860 and further to the southeast, the viaduct built 1843–4. Within the northernmost area of this viaduct is the RNLI boathouse, built 1889 (RPS No. 35). The location of mound DU002-003 is not indicated on the 25-inch map, while the site of enclosure DU002-016 has only a small amount of hachuring along the cliff edge but the eastern field boundary continues to be depicted as slightly curving.

Notably, Bell's Cottage on the western edge of the grounds of Bremore Castle, is not depicted on either the 1st edition 6-inch map of 1843 (surveyed 1836; Figure 8) or the 25-inch map of 1908 (surveyed 1906; Figure 9), but is illustrated on the Cassini 6-inch map of 1935–38 (Figure 10). Both the footpath extending from the area of Bremore Castle and the associated well are also depicted on this map but they are no longer extant today as the area was subsequently converted into a sports ground. The Cassini 6-inch map also depicts the Martello Tower and Baths, but not the Boat House. The Brick Works and Coastguard Station are also no longer illustrated but there are some remnants of buildings in these areas that are not labelled. The Hosiery Factory is depicted, although the layout of buildings differs somewhat from that on the earlier 25-inch map.

3.6 Aerial Photography

In addition to examining the various editions of the OS maps, aerial photographs from the Geological Survey of Ireland, dating from between 1995 and 2013, were also consulted (Figures 11–12). One of the main areas of interest was in the vicinity of mound DU002-003 in the townland of Bremore and enclosure DU002-016 in the townland of Tankardstown.

The 1995 aerial photo shows the location of the enclosure (DU002-016) as a lighter-coloured sub-circular area, approximately 45m north–south by 35m east–west, and where the Coastguard station once stood is also suggested by a darker-coloured rectangular area of ground, approximately 55m long (northeast–southwest) by 15m wide. The photographs dated 2000 and 2005 show no traces of archaeological features but do illustrate the insertion of the Cardy Rock housing development. The aerial image generated from data captured between 2005 to 2012 shows an enclosing feature in the area of DU002-016, but also what appears to be an adjoining, smaller enclosure to the west. The mound (DU002-003) to the northwest is also visible, situated between the river and a pathway leading to the beach. Some of the playing pitches established across the middle of the park are also clearly visible on this image, as is the addition of the Balbriggan Soccer Club building since the 2005 photograph. While the aerial image generated from data captured between 2011 to 2013 is largely distorted by linear tracks suggesting grass cutting, the vegetation-covered area of mound DU002-003 is still visible. On all the aerial photographs dating between 1995 and 2013, the field boundary on the eastern side of enclosure DU002-016 is visible as a curving hedgerow with a single narrow gap on the southeastern side providing access between this field and the adjacent field, both of which have playing pitches; this gap appears to have been widened slightly by the time of the 2011–13 aerial image.

An examination of recent high-resolution imagery (Figure 12) for the area of the enclosure (DU002-016) indicates more clearly the bivallate or double-ditched nature of the site, with an inner area abutting the cliff-edge on the northern side measuring approximately 25m in diameter, with a gap of c. 11m between this and an outer enclosing element that measures approximately 35–40m in diameter. The site of the mound (DU002-003) to the northwest remains an area of vegetation cover and the surrounding greenfield area is dominated by playing pitches.

3.7 Protected Structures and National Inventory of Architectural Heritage (NIAH)

The park contains five protected structures (RPS Nos 12, 13, 14, 17 and 18) as listed in the *Fingal Development Plan 2017–2023*, of which four are also listed in the National Inventory of Architectural Heritage (NIAH). Just outside the western boundary of the park are a further five protected structures (RPS Nos 15, 19, 30, 31 and 35). The following is a list of all such structures located within and in the vicinity of Bremore Regional Park.

Site	RPS No.	NIAH Reg. No	Date	Description
Balbriggan Railway Bridge	0012	11304001	1840–1860	Single-arch railway bridge, c.1850. Rock faced granite voussoirs and pillars & parapet walls with plain metal railings. Depressed arch opening, with rock faced granite soffit.
St Molaga's Church (in ruins) and Graveyard	0013	n/a	1500–1700	Remains of nave and chancel of late medieval church with some decorative stonework (see Section 3.2)
Bremore Castle	0014	n/a	1500–1700	Reconstructed four-storey castle with five-storey tower that contains at ground floor the remains of the original 16th century fortified house (see Section 3.2).
Bremore Lodge / Cottage	0015	11304003	1835–1855	Detached eight-bay single-storey thatched house, c.1845, with projecting entrance porch. Now in ruined condition. Reputed to be one of the longest thatched houses in Ireland. Roof: Non-existent as it burned down during a fire in 1996. Castiron comb ridge tiles exist on site. Walls: Mud walls with lime render partially covered to present water ingress, with plastic sheeting partially ruined due to fire. Openings: Square headed window openings obscured by over growth and vegetation; round headed door opening on porch with simple timber doorcase, doorleaf & fanlight. Interior: Access not gained. From street interior gabled, red brick wall with chimney breast visible. Outbuilding to rear.
Balbriggan Martello Tower	0017	11305009	1800–1810	Martello tower, c.1805, on a circular plan with tapered profile. Roof: Parapet no longer exists, with only corbelled brackets remaining to platform. Walls: Coursed limestone, some roughcast render survives; projecting limestone corbelled brackets. Openings: Small square headed window openings with stone lintel above. Square headed door opening, blocked up opening.
Balbriggan Lifeboat Station (former) / Bath House & Boat House	0018	11305010	1885–1895	Detached four-bay single-storey stone built former lifeboat station, built 1889. Three-bay single-storey boathouse to east. Roof: Double pitched with only timber rafters surviving in places; double pitched corrugated iron roof on smaller building to east. Walls: Coursed limestone walls; ashlar limestone plinth course; string courses; limestone buttresses to corners; front/sea façade is rendered; smaller building has rockfaced limestone with quoining. Openings: Slightly segmental headed window openings with limestone dressings, chamfered cills, port of timber sase & frames survive, blocked up with concrete blocks placed inside windows. Smaller adjacent building, carriage arch opening with limestone dressings at gable end also blocked up.
Chimney of Former Sea Mills Hosiery Factory / Smyth's Chimney Stack	0019	11305008	1890–1910	Freestanding red brick industrial chimney stack, c.1900, with stepped brick cornice.
Balbriggan Railway Station	0030	11305001	1850–1855	Detached five-bay single-storey Italianate style railway station, built 1853, with three-bay central limestone entrance porch flanked by advanced pedimented single-bays. Design by George Papworth. Roof: H-plan; double pitched roofs intersecting with hipped roofs; slate coated in type some slate replacement tiles; brick chimney stacks; limestone coping and cornice; clay pots; cast-iron rainwater goods. Walls: Red brick laid in Flemish bond, limestone and concrete plinth course, lime chanelled pilasters. Openings: Round headed brick recessed arch brick reveals, 6/6

Site	RPS No.	NIAH Reg. No	Date	Description
				timber casements (1980's) limestone sills with cill gards; also square headed openings; brick reveals limestone sill retain 6/6 1853, windows survive in some sections;6/1 also main two leaf timber door located in recessed portic of limestone consisting on central square headed opening flanked by rounded headed openings. Interior: Original timber shutters original plaster dentil cornice; ticket room has original timber presses.
Station Master's House	0031	11305002	1850–1870	Detached three-bay two-storey station master's house, c.1860, with gabled dormer over central bay. Single-storey extension to south-west gable, c.1960. Roof: Double pitch; slate roof; with decorative carved timber barge boards, cast-iron rainwater; yellow brick cornice; brick chimneys stacks; terracotta pots. Walls: Red brick English garden wall bond wall; yellow brick dressing and string course; yellow brick moulded coping to projecting red brick plinth course. Openings: Yellow brick segmental headed windows chamfered limestone cills, stepped red brick soffits and reveals; 2/2 timber sashes with original glass; timber casements in places; front door has round headed yellow brick stepped surround; limestone door step; cylinder glass plain fanlight; reproduction panelled timber door; yellow brick round headed opening to first floor central bay, stepped reveals, chamfered sill, 3/3 round headed timber sash window.
Former RNLI Boathouse	0035	11305020	1885–1895	Detached single-bay two-storey boathouse, built 1889. Ornate timber panelling over bressumer beam. Life boat station built as a result of two ship wrecks occurring off Balbriggan coast. 1873: The Sarah of Runcorn a collier. 1875: The Bell Mill. Roof: Half hipped slate roof with clay ridge tiles; roof covers to dormer windows which continue ridge line. Walls: Rock faced and ashlar limestone walls with plinth buttressing to either side of façade & rear elevation with ornate timber frame construction at roof level. Ashlar courses at window cills & soffit level. Openings: Two-gabled dormer with square headed window opening supported by timber corbels, with segmental headed window opening with limestone soffits; reveals & flush canted cills surrounding fixed timber windows; square headed double door opening.

4. GEOPHYSICAL SURVEY

Geophysical survey was undertaken by Ian Russell of ACSU and John Nicholls of Target Archaeological Geophysics between 16 January and 11 March 2020 under Detection Licence no. 20R0032. A total of 29.4 ha of high-resolution magnetic gradiometer survey was completed within the park boundary, examining ten locations suitable for geophysical investigation.

4.1 Survey Methodology

4.1.1 Methodology

High-resolution magnetic gradiometer survey was undertaken throughout the available lands within the Bremore Regional Park, completing a total of 29.4 hectares of survey in ten areas, M1–M10 (Figures 14, 15 and 20). Of these, areas M5, M6 and M8, as well as part of M2 and M3, are within the boundary of the Part 8 Planning Application project area.

The survey employed an advanced multichannel fluxgate gradiometer system combined with cm precision GPS, recording magnetic gradiometer and GPS data simultaneously at rates of 75Hz and 1Hz respectively, conducting parallel instrument traverses 2.7m in width throughout M1–M10, with the instrumentation installed in tow configuration for use with an ATV.

4.1.2 Instrumentation

Details of the geophysical instrumentation employed for this project are provided below:

Technique	Sensor spacing	Sample rate	Instrumentation	Sensitivity / precision	No. of measurements recorded
Magnetic (fluxgate) gradiometry	0.27m	75Hz	12 x fluxgate gradiometers, 15 channel data logger	<75pT / √Hz at 1Hz (650mm baseline)	3,037,632
GPS	3.00m	1Hz	Trimble R10 GPS (VRS)	<0.1m (vertical & horizontal)	46,027

The field instrumentation and software used during this geophysical survey were configured to apply a spatial resolution of c. 80–100 magnetometer gradiometer measurements per m^2, which exceeds the 'Level 3 – Characterisation' EAC Guidelines recommendation for geophysical survey in archaeology (Schmidt *et al*. 2016).

4.1.3 Data processing

Post fieldwork magnetic gradiometer data processing was performed as follows:

Process	Description
1	Positioning of magnetic gradiometer data based on real-time GPS measurements.
2	Zero median transect processing for multi-sensor magnetometer data collected along parallel transects.
3	Gridding (nearest neighbor interpolation).
4	Export of georeferenced greyscale images at optimum range (-1.5/2nT) to project CRS (ITM).

To ensure integrity of the processed geophysical data, and maintain close correlation with the original raw on-site measurements, no further processing or filtering of the data was applied proceeding steps 1–4.

4.1.4 Data display

Figure 14 presents a site location diagram (scale 1:6000), highlighting the area of Bremore Regional Park on the north-eastern outskirts of Balbriggan Town, the limits of geophysical survey, and the locations of RMPs situated within c. 1 km proximity.

Figure 15 presents summary greyscales of the results from the survey in M1–M10 at a scale of 1:5000, with greyscale plots of the data also presented at a scale of 1:1500 in Figures 16–19.

Figure 20 presents summary interpretations of the results from the survey in M1–M10 at a scale of 1:5000, with interpretation diagrams also presented at a scale of 1:1500 in Figures 21–24. Numbers included on Figures 21–24 refer to notable anomalies recorded from survey in M1–M10 and these are discussed in the results section below (Section 4.3).

4.2 General Considerations

4.2.1 Access and ground conditions

Bremore Regional Park extends across mostly level land, with the northern/north-western portion of the park descending gently east-northeast towards the coastline. Survey in M1 and M4 to the north investigated two recently harvested maize fields east of the Dublin–Belfast railway line. Survey in M2 and M3 was undertaken following cutting of dense vegetation by the client. Fieldwork in M5–M10

extended either side of the railway line as far as the coastline, examining open parkland west and east-southeast of the Cardy Rock development and Lambeecher Estate, with a number of soccer pitches occupying M6–M10.

Lands within the park boundary excluded from geophysical survey included waterlogged terrain to the northeast in M1 and southeast in M2; an artificial soccer pitch and unsuitable terrain southeast to southwest of Bremore Castle; and poor terrain west to south of M9 and M10.

4.2.2 Modern interference

The results from survey in M1–M10 highlight numerous small-scale ferrous responses throughout. Ferrous responses are a common occurrence in magnetic and electromagnetic survey data, and in most cases represent modern metal debris contained within the topsoil.

Broad ferrous responses are also apparent in the results, mostly notably at the western/south-western perimeter of M1, M4 and M7 in proximity to the Dublin–Belfast railway line, and at the southern/south-eastern edge of M2 and M3.

Widespread magnetic disturbance recorded in M3, M4 and M6–M8 is indicative of recent landscaping. In M3–M5 this disturbance is expected to derive from construction works in connection with the Cardy Rock development. In M6–M8 this disturbance likely derives from the site of a former brickworks which previously occupied this location, as well as construction works for the Dublin–Belfast railway line.

4.2.3 Recent landuse

Remnants of former boundaries/suspected former land divisions are evident on various alignments in M1–M4 and M7. Former cultivation is also apparent in the results from M2 and M7, with multiple land drains highlighted in M1, M4, M6 and M7.

4.2.4 Natural soil/geological variation

Responses indicative of natural soil morphological/geological variation have also been recorded to the northeast in M1, northwest in M2, northeast in M4 and north-northwest in M7.

4.3 Geophysical Survey Results

These survey results should be read alongside the greyscale/interpretation diagrams included in this report (Figures 15–24).

4.3.1 General overview

Viewed in its entirety, the data acquired from magnetic gradiometer survey in M1–M10 are dominated by effects from recent landuse, including remnants of former boundaries (M1–M4 and M7), past cultivation (M2 and M7), land drains (M1, M4, M6 and M7); and magnetic disturbance from recent construction/landscaping (M5, M6 and M8–M10). Magnetic disturbance in M5 and M6 likely derives from construction of the Cardy Rock development, and in M6–M8 is expected to originate from the site of a former brickworks and construction of the Dublin–Belfast railway line. It is highly probable that subtle magnetic contrasts associated with buried archaeological remains, where present in M5, M6 and M8–M10, will remain undetected when in proximity to these areas of magnetic disturbance.

Poorly defined small-scale positives and weak trends are apparent in the results from survey in M1–M7 and an archaeological interpretation for these should not be dismissed. The majority of these anomalies are, however, expected to derive from recent landuse, natural soil/geological variation, and/or deeply buried modern ferrous debris.

4.3.2 M1

The most notable anomalies recorded from geophysical survey in M1 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M1		16 & 21	4.055	Harvested maize field gently sloping E–NE
Response(s)	Location from survey centre	Interpretation	Description	
1	N	? Archaeology Increased response	Irregular positive anomalies and a broad zone of increased response, potentially associated with the site of a former building, or remains of a *fulacht fiadh*. Interpretation is cautious as this location is traversed by multiple former boundaries, with limestone outcropping and modern refuse also evident to the NE.	

4.3.3 M2

The most notable anomalies recorded from geophysical survey in M2 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M2		17 & 22	3.98	Recently cut pasture field gently sloping E-SE
Response(s)	Location from survey centre	Interpretation	Description	
2-3	Survey centre to NE	? Archaeology Trend	Poorly defined interconnecting linear features and trends indicating possible levelled enclosure, with adjacent small-scale positives. The potential that these responses relate to more recent land divisions should not be dismissed.	
4	W-SW	? Archaeology	Weakly magnetic curvilinear response of possible interest.	
5	NW	? Archaeology	Poorly defined positives of uncertain origin. A natural soil/geological explanation is suggested. The potential that these responses represent weakly magnetic pit remains should not be ignored.	
6	SE	? Archaeology	Weakly magnetic linear response, potentially representing part of an early field system.	

4.3.4 M3

The most notable anomalies recorded from geophysical survey in M3 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M3		17 & 22	5.35	Recently cut pasture field gently sloping E-SE
Response(s)	Location from survey centre	Interpretation	Description	
7	W-NW of survey centre	? Archaeology Increased response	Concentration of probable burnt/fired material and associated debris extending to NE, potentially representing levelled *fulacht fiadh* or site of former building.	
8	NW	? Archaeology	Poorly defined curvilinear response of possible interest.	
9	N-NE	? Archaeology Trend	Sub-rectangular group of poorly defined linear responses and trends of possible interest.	
10	SE	Archaeology ? Archaeology Trend	Probable levelled enclosure comprising of weakly magnetic interconnecting linear/curvilinear anomalies and trends.	

4.3.5 M4

The most notable anomalies recorded from geophysical survey in M4 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M4		16 & 21	7.601	Generally flat harvested maize field
Response(s)	Location from survey centre	Interpretation	Description	
11	W-NW	? Archaeology Trend	Poorly defined small-scale positives and trends of uncertain origin. A natural soil morphological/geological origin is expected.	
12	NE	Trend	Faint linear trends, of uncertain origin. A natural soil morphological/geological origin is expected.	
13	NE	Trend	Faint linear trends, weakly magnetic and sub-circular in form. A natural soil morphological/geological origin is expected.	

4.3.6 M5

The most notable anomalies recorded from geophysical survey in M5 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M5		18 & 23	1.184	Poorly drained open park land traversed by a modern service N-NE.
Response(s)	Location from survey centre	Interpretation	Description	
14	N	? Archaeology Trend	Poorly defined small-scale positives and trends of uncertain origin. A modern origin is suggested given the widespread magnetic disturbance throughout M5.	

4.3.7 M6

The most notable anomalies recorded from geophysical survey in M6 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M6		18 & 23	1.234	Partially landscaped open park land occupied by soccer pitch (site of former carpark).
Response(s)	Location from survey centre	Interpretation	Description	
15-16	S-SW	? Archaeology Trend	Poorly defined weakly magnetic linear responses and trends of potential note. The possibility that these anomalies represent outlying linear/enclosure remains associated with field system DU002-014, Bremore Castle DU002-001 or church & graveyard DU002-002003/005/006 to the NW–SW should not be dismissed.	

4.3.8 M7

The most notable anomalies recorded from geophysical survey in M7 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M7		18 & 23	4.179	Level open park land occupied by soccer pitches.
Response(s)	Location from survey centre	Interpretation	Description	
17	SE	Archaeology	Strongly magnetic curvilinear responses indicative of ditched enclosure remains associated with mound DU002-003, and potentially enclosure DU002-016 to the E-SE.	
18	SE	? Archaeology	Weakly magnetic linear response of uncertain origin aligned NE–SW.	
19–21	NW	? Archaeology Trend	Weakly magnetic curvilinear trend aligned NE–SW and small-scale positives of uncertain origin. A natural soil/geological, recent landuse or modern ferrous origin is suggested.	

4.3.9 M8

The most notable anomalies recorded from geophysical survey in M8 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M8		19 & 24	0.65	Level open park land bound W-SW by housing and to the E the Dublin–Belfast railway line.
Response(s)	Location from survey centre	Interpretation	Description	
22	Centre-SE	Buried foundations	Linear/rectangular arrangement of responses indicative of buried foundations recorded within widespread magnetic disturbance relating to the site of a former brick works and construction of the Dublin–Belfast railway line.	

4.3.10 M9

The most notable anomalies recorded from geophysical survey in M9 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M9		19 & 24	0.512	Level open park land occupied by soccer pitch.
Response(s)	Location from survey centre	Interpretation	Description	
23	E-NE	Archaeology	Curvilinear ditch remains associated with enclosure site DU002-016, and potentially mound DU002-003 to the NW. There is a high probability that features of archaeological interest within M9 will remain beyond detection due to the widespread magnetic disturbance recorded throughout.	

4.3.11 M10

The most notable anomalies recorded from geophysical survey in M10 are detailed below:

Geophysical survey area		Figure(s)	Hectares completed	Terrain/landuse
M10		19 & 24	0.674	Level open park land.
Response(s)	Location from surv centre	Interpretation	Description	
24	NE-SW	Buried foundations	Linear/rectangular arrangement of responses indicating buried foundations recorded within widespread magnetic disturbance relating to the site of a former brick works, Coastguard station and Martello tower DU002-004. Buried remains associated with mound DU002-017, at the north-eastern perimeter of M10, will remain beyond detection due to the widespread magnetic disturbance recorded throughout.	

4.4 Geophysical Survey Conclusions

This geophysical survey was successful in identifying the location of buried archaeological remains associated with RMP sites DU002-003 (mound) and DU002-016 (enclosure), which are located in close proximity to each other in the eastern/southeastern portion of the park (M7 and M9). Remains of more recent building foundations are also indicated to the southeast, in M6 and M8, and these are expected to be associated with the site of a former brick works, coastguard station and potentially RMP site DU002-004 (Martello tower). The locations of two probable levelled enclosures are also suggested northeast of survey centre in M2, and to the southeast in M3, with a spread of burnt/fired material, potentially associated with the site of a former building or *fulacht fiadh*, also evident northwest of survey centre in M3.

Widespread magnetic disturbance in M5, M6 and M8–M10 has complicated interpretation of the results. It is deemed highly likely that buried archaeological remains, if present within these regions of disturbance, will remain beyond detection, and this is particularly relevant in the case of RMP site DU002-017 (mound), which lies at the northeastern perimeter of M10.

Further responses of potential interest are indicated by the results from this geophysical survey. These include a possible building or *fulacht fiadh* to the north in M1; small-scale positives and linear responses to the northwest in M2 and M3; a rectangular pattern of linear responses and trends to the north-northeast in M3; curving trends to the northeast in M4; and a group of poorly defined linear features to the south-southwest in M6. Interpretation of these responses remains uncertain, and while an archaeological origin should be considered, a natural, recent landuse, or modern ferrous explanation is also plausible.

Elsewhere, the results from survey in M1–M10, within the lands available to geophysical survey which form part of Bremore Regional Park, highlight changing patterns of landuse in the form of disused boundaries/land divisions, past cultivation and a multitude of land drains.

The data also display responses from natural soil/geological variation to the north-northeast, northwest and at the approximate centre of Bremore Regional Park.

5. SUMMARY & INTERPRETATION

Bremore Regional Park contains ten recorded monuments listed within the Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR). While none of these are within the boundary of the Part 8 Planning Application project area, they do indicate how rich the area is in archaeological and cultural heritage. These comprise a later medieval fortified house (Bremore Castle) and associated church (St Molaga's) and graveyard that includes architectural fragments and a carved cross (DU002-002001–6). The site is reputed to be the manorial seat of the Barnewall family from the 14th century. The late medieval carved cross (DU002-002004-) was taken into storage at Ardgillan Castle in 2009. The remaining sites are to the southeast and consist of two mounds (DU002-003 and DU002-017), an enclosure (DU002-016) and a Martello Tower (DU002-004). The park also contains five protected structures as listed in the *Fingal Development Plan 2017–2023*, including St Molaga's church and graveyard (RPS No. 13), Bremore Castle (RPS No. 14) and the Martello Tower (RPS No. 17). The remaining protected structures comprise a railway bridge (RPS No. 12) and a bath house and boat house (RPS No. 18). Just outside the western boundary of the park are a further five protected structures; Bremore Cottage / Lodge (RPS No. 15), a free-standing industrial chimney stack of the former Sea Mills Hosiery Factory (RPS No. 19), Balbriggan Railway Station (RPS No. 30) and associated Station Master's House (RPS No. 31), and a former RNLI boat house (RPS No. 35). While to the north of Bremore Castle, excavations in 2011 (DU002-014) revealed part of a medieval field system, as well as a metalled pathway, pits, the footprint of a small structure, large amounts of medieval pottery, a slate sundial, two Elizabethan coins dating from 1601–2 and a six-pound cannonball, as well as various post-medieval features. Notably, test excavations to the east of Bremore Castle in 2013, in the area of the all-weather pitch, did not uncover any archaeological features. Geophysical survey undertaken across much of the park in 2020 successfully identified the subsurface remains of the known archaeological sites associated with RMP DU002-003--- (mound) and DU002-016---- (enclosure), as well as several additional anomalies, including some that may indicate further medieval and post-medieval features in the vicinity of Bremore Castle.

5.1 Prehistoric archaeology

While there are currently no known prehistoric sites within the Bremore Regional Park, Mesolithic, Neolithic and Bronze Age stone tools have been recovered from the wider Dublin coastline, including the vicinity of Balbriggan. The surface collection of lithics since the 19th century has indicated that fields along the coast appear to have been the focus of lithic production, containing a greater frequency and variety of tools (Smyth 2014, 132), this includes fields directly north of the study area in the vicinity of the Gormanston–

Bremore passage tomb complex (Collins 1997), which is situated on either side of the mouth of the Delvin River, approximately 1km north of Balbriggan town. This suggests that the agricultural fields in the Bremore Regional Park, particularly those in the northern half of the study area, have the potential to contain worked stone as well as sub-surface prehistoric remains. For example, an Early Neolithic house was excavated to the west of the park in 2005, in the townland of Flemingtown.

Bronze Age and Iron Age activity is also attested in the wider environs of the park. In the townland of Clonard or Folkstown Great, excavations in 2002 uncovered an Early Bronze Age stake-hole cluster, the remains of a Middle Bronze Age roundhouse and Early Iron Age hearth, while excavations in 2015–16 uncovered a *fulacht fiadh* or burnt mound, a ring-barrow, a routeway or avenue defined by parallel narrow gullies, a possible ceremonial enclosure, and a cremation pit that returned a Late Bronze Age date. In the nearby townland of Flemingtown, excavations in 2002 revealed a segmented curvilinear ditch dated to the Late Bronze Age with subsequent activity in the Late Iron Age and associated with burnt and non-burnt animal bone, some human bone, carbonised grain and a single sherd of pottery, while excavations in 2005 identified burnt mound material, pits and a possible trough, as well as a shallow pit that produced coarse Bronze Age pottery. During the excavations undertaken in advance of the Cardy Rock housing development, just west of geophysical survey area M5 within Bremore Regional Park (Figures 18 and 23), a paleochannel or old stream bed extending through the site was found to have a nearby hearth with shattered burnt stone and some flint, perhaps indicating prehistoric activity (O'Carroll 2009, 78). Irregular anomalies detected within M1 (1) and M3 (7) during the geophysical survey suggest areas of burnt/fired material that have the potential to represent similar activity, perhaps representing levelled burnt mounds (Figures 16, 17, 21 and 22), although other possibilities cannot be ruled out, including later industrial activity.

A mound (DU002-003) within the Bremore Regional Park, located on the northern bank of an unnamed river and near the cliff edge northeast of the Martello Tower, is described as oval and flat-topped, measuring 9m in diameter at the base and 3m at the top, with a height of 2.5m, with scrub vegetation and playing pitches now located in this area. Geophysical survey at the southeastern extent of M7 (17) was limited by the vegetation but did detect a strong response indicative of a ditched enclosure in the area of this mound (Figures 18 and 23). While the date and function of this monument remain unknown it is notable that evidence for prehistoric sites in the wider area, from passage tombs to ring-barrows to shell middens, may indicate a prehistoric date. It is possible that this ditch and mound combination may indicate the remains of a barrow, which are burial monuments dating to the Bronze Age and Iron Age and tend to occur in clusters. Alternatively, if the two segments of curvilinear ditches detected on the geophysical survey are contemporary they may represent a penannular enclosure with a slightly inward curving entranceway. This feature was also uncovered at Clonard or Folkstown Great, where the possible prehistoric ceremonial enclosure was interpreted as having a 2.46m-wide entrance gap to the southeast where the termini did not line up perfectly, with the southern element turning slightly inside the line of the eastern element (McGlade 2016, 32). A second mound (DU002-017), located approximately 200m to the southeast, was depicted on an early 19th-century map and the Martello Tower was subsequently built on top of it. It is also notable that in an early 19th-century manuscript held in the National Archives London, this tower was referred to as built 'on part of an old Danish fort' (Bolton 2008). Geophysical survey in this area, at the north-eastern perimeter of M10, remained beyond detection due to the widespread magnetic disturbance recorded throughout this part of the park (Figures 19 and 24). While later activity in this area has obscured the earlier mound, it is possible that the two mounds represent similar archaeological monuments.

An enclosure (DU002-016) with no above ground presence is recorded between these two mounds. This site was initially suggested by the curving field boundary to the east and was visible on aerial photographs as a large circular, bivallate enclosure (see Figure 12). This indicated an inner area abutting the cliff-edge on the northern side measuring approximately 25m in diameter, with a gap of c. 11m between this and an outer enclosing element that measures approximately 35–40m in diameter. The high-resolution geophysical

imagery confirmed the presence of a possible bivallate enclosure in area M9 (23), as well as additional curvilinear ditches of potential archaeological interest (Figures 19 and 24). It is also possible that this ditched enclosure may relate to some of the features identified to the northwest in area M7. This enclosure and the nearby mounds were strategically positioned in a prominent coastal location. As detailed in Section 3.1, coastal promontory forts have been found to range in date from the Late Bronze Age to the late medieval period, when banks, ditches and other defences were used on the landward side to cut off a promontory and create an enclosed space. Where excavations have taken place, such as at Drumanagh and Dalkey Island, multi-period activity has come to light, suggesting these coastal sites often have a palimpsest of occupation. The importance of the large promontory fort at Drumanagh during the late centuries BC and early centuries AD is, for example, attested by the recovery of Middle–Late Iron Age artefacts as well as Roman material (Baker 2018; 2019a).

5.2 Early and late medieval archaeology

Two major concentrations of E ware, a type of pottery imported during the Late Roman period (c. AD 525–700), have been recorded along the east coast of Ireland, one of which is in north-eastern Leinster and is perhaps related to general patterns of early medieval trade and exchange around the Irish Sea coastline during this period (O'Sullivan *et al*. 2013, 257). This coincides with the floruit of rath/ringfort construction across the island and could indicate that the enclosure DU002-016 equally dates to this period and was related to trading, although this is tentative in the absence of any excavated evidence. The wider area around Balbriggan does contain several sites dating from the early medieval period, mainly in the form of enclosures, field systems and cereal-drying kilns, suggesting an extensive farming population. Excavations in 2001 at Rosepark, Balrothery, for example, revealed a large multi-phase enclosure complex, while a ditch complex excavated at Flemingtown in 2005 is postulated to represent an agricultural field system incorporating water management features and demarcating areas of specialised activity such as metalworking and cereal-processing, with a further ringfort, souterrain and field system identified at Stephenstown in 2008. The coastal positioning would have facilitated the monitoring of boats, as well as the exploitation of the marine resources, which could have ranged from fish to shellfish, sea mammals and seas-birds (McCormick and Murray 2007, 73–8). With the possible exceptions of Dalkey Island and Dunnyneill Island off County Down, there is as yet little evidence for major coastal *emporia* in pre-Viking Ireland, such as those found in southern Britain and other parts of Europe (O'Sullivan *et al*. 2013, 266). Instead, it is likely that beach locations and off-shore islands were established by maritime traders as market areas used to bring ashore imported pottery, glass and other goods, perhaps in cooperation with local elites or the church (*ibid*.).

Within Bremore Regional Park, the late medieval church with associated graveyard (DU002-002002–6; RPS No. 13) is reputed to be the early monastic site of *Lann Beachaire* (the church of the beekeeper) that later developed as a manorial chapel. Geophysical survey undertaken in 2011 as part of the *Bremore Conservation Plan* did not, however, uncover any anomalies that would suggest a monastic enclosure (Nicholls 2011), nor did the most recent geophysical survey to the north (M5; Plate 9) and west (M6). There was also nothing to indicate early medieval occupation identified during the excavations undertaken adjacent the church in 2017 (Baker 2019b) or to the north-west in advance of the Cardy Rock housing development in 2001 (O'Carroll 2009; see below). It is therefore possible that this site was established much later, as a manorial chapel associated with Bremore Castle, with historical records indicating that the lands were acquired by the Barnewall family in the 14th century.

References to the Rosselle or Rosel family suggest that a manorial seat, most likely with an associated structure, probably existed in this area from the end of the 13th century, although no clear archaeological evidence of this has come to light (Baker 2019b, 51). A mass dial thought to have come from the manorial chapel and no later than 15th century in date, was recovered during excavations to the north of the site. These excavations, undertaken in 2001, also exposed part of a medieval field system (DU002-014), most likely

associated with the manor, as well as a possible manure heap containing 13th- to 14th-century pottery, wells or cisterns and a metalled laneway extending from the Balbriggan–Dublin road into Bremore Castle. This castle (DU002-002001; RPS No. 14) represents a 16th-century building, under construction by 1546 but later renovated after damage in 1641, during the Irish Confederate Wars. Late 16th- to early 17th-century evidence for landscaping associated with the estate was also uncovered during the excavation in the adjacent lands and these comprised fields transformed into parkland or perhaps an orchard, while the discovery of a cannonball might be linked to the Confederate Wars.

Excavations within and around Bremore Castle were also undertaken in 1995 and 2017. The former indicated considerable disturbance within Bremore Castle but did identify a series of walls that were probably used to divide the main hall at a later date. Also uncovered were two stone-built channels, one associated with the garderobe and the other probably for drainage, spreads of burnt material and charcoal, as well as large quantities of whelk and limpet, some animal bone and post-medieval pottery. The excavations in 2017 identified a previously unknown ditch close to the surviving southern wall of the Castle, possibly contemporary with a 17th-century metalled surface that was found to extend throughout the walled garden, a Victorian pathway and numerous sherds of 12th–15th-century pottery.

Based on the archaeological discoveries around Bremore Castle, church and graveyard, it is likely that the extent of the associated late medieval manor also extends into the area of Bremore Regional Park, particularly in the form of additional field systems. While the area (M5) directly east of Cardy Rock had some poorly defined anomalies (14) due to widespread magnetic disturbance, the geophysical survey did detect some linears (15–16) directly to the east in area M6, perhaps representing part of that field system (Figures 18 and 23). On the northern side of the Cardy Rock housing development, several anomalies in M2 and M3 (Plates 10 and 11) may also represent features associated with this manor and castle, comprising possible levelled enclosures (2–3 and 10), curvilinear ditches (4 and 8), pits (5) and linears (6 and 9) perhaps representing part of a field system (Figures 17 and 22). The road depicted on John Rocque's map (1760), extending northwards from Bremore Castle to Newhaven (Figure 5), may also fall within these areas of the park, as well as M1 and M4 (Plate 12), although no corresponding anomalies were detected by the geophysical survey and it is possible that the railway track, laid in the early 1800s, may have obscured much of that roadway.

5.3 Post-medieval, maritime/coastal and industrial archaeology

In 1725, the entire Barnewall estate was sold and Bremore entered into the possession of the first Earl of Shelbourne, represented in Ireland by the Marquis of Lansdowne, with the Lansdowne family remaining the primary landowners until the 19th century. Bremore Castle appears to have been partially demolished by 1833 and by this time the adjacent land was used for agriculture and modern farm buildings were erected. Fragments of decorated 17th-century stonework (DU002-002004–6) from this area have survived, some of which is preserved within the church. The Martello Tower (DU002-004; RPS No. 17) was built in 1805, during the Napoleonic Wars (1799–1815), and is one of 28 such towers that were built along the north Wicklow and Dublin coastline. It was positioned on top of an existing mound of unknown antiquity. A Bath House and Boat House (RPS No. 18) were built to the rear of the Martello Tower in the late 19th century.

Cartographic sources also indicate that Bremore Regional Park incorporates the former sites of a Coastguard Station and parts of a Brick Works and Hosiery Factory, all within the townland of Tankardstown. The Coastguard Station was built around 1864 but destroyed in 1923 during the Irish Civil War, however, cartographic and photographic evidence indicates that it comprised a terrace of at least eight, two-story houses with shared front porch entrances, some with small buildings to the rear, with a watch-tower at the northeastern end that had additional buildings to the rear, perhaps for storage, a flagstaff to the southeast and a well to the west. The history of

shipwrecks in the area is also of interest, forming an important element of the maritime heritage of Balbriggan. The Brick Works are illustrated on the 1st edition 6-inch OS map of 1843 (surveyed 1836) as shaded areas labelled 'Brick Yard' and 'Brick Field', with only the former within the area of Bremore Regional Park. On the 25-inch OS map of 1908 (surveyed 1906), the Brick Field is labelled 'Clay Pit' and extended further to the southwest, while the Brick Yard is labelled 'Brick Works' and contains several buildings including two circular kilns, more common from the 1850s onwards. A chimney in the vicinity of the Martello Tower is depicted on a photograph dating to the early 1900s and appears to be a Hoffman kiln, most likely part of the brick works. Recent excavations of post-medieval brick-production sites in Counties Clare and Limerick date from no earlier than the 18th century and uncovered brick-making clamps represented by rows (benches) of unmortared brick with deposits of black, burnt peat between them, brick-holes (clay quarries) and brick yards (Hull 2005). These demonstrate the type of sub-surface remains that may be uncovered within the Bremore Regional Park. The Hosiery Factory represents the premises of an English firm, Deeds, Templar & Co., who established themselves here at Sea banks and traded as the Balbriggan Sea Mills Hosiery Company from 1884 to its destruction in 1920, during the Irish War of Independence. In 1932, Messrs Stephenson & Co. of Newtownards, manufacturers of the Shamrock brand of hosiery and underwear, commenced work on the site of the old Balbriggan Sea Mills Hosiery Company until its closure in the 1980s. The industrial heritage of Balbriggan is also closely tied to the Dublin–Belfast railway line, with the viaduct, railway bridge, station and station master's house all important heritage assets in the environs of the park. While the areas mapped as containing the coastguard station, brick works and a hosiery factory were mainly outside the parts of the park deemed suitable for geophysical survey, it is notable that some linear/rectangular anomalies (22 and 24) in M8 and M10 may relate to these sites, perhaps representing the buried foundations of associated buildings (Figures 19 and 24).

Recent landuse was also evident across the geophysical survey, with the remnants of former field boundaries suggested by various alignments in areas M1–M4 and M7, including several depicted on the 6-inch (1843) and 25-inch (1908) OS mapping (see Figures 8, 9, 15 and 20). Former cultivation was also suggested across areas M2 and M7, with land drains indicated by anomalies in M1, M4, M6 and M7. Given the use of this area as a medieval manor, an earlier date for some of these features cannot be excluded.

6. RECOMMENDATIONS

A study of the recorded monuments and protected structures located within Bremore Regional Park and the surrounding townlands, as well as a review of previous archaeological investigations undertaken in the area and available cartographic and aerial photographic records, suggested that the overall landscape of the park has high archaeological potential. The park is particularly rich in late medieval manorial features and post-medieval to early modern industrial and maritime-related archaeology. The environs of Bremore Castle (DU002-002001; RPS No. 14) and St Molaga's Church and Graveyard (DU002-002002–6; RPS No. 13) are likely to contain additional features relating to the 13th/14th century manorial seat of the Barnewall family, as well as later uses such as post-medieval farming practices. Excavations to the north, in advance of the Cardy Rock housing development, demonstrated the survival of a medieval field system (DU002-014) that most likely extends into the area of Bremore Regional Park, as suggested by the range of anomalies detected by the geophysical survey undertaken in 2020. Another area of high archaeological potential is in the vicinity of the two mounds (DU002-003 and DU002-017) and an enclosure (DU002-016) near the Martello Tower (DU002-004). While this wider area had some development in recent years, including landscaping around the tower and the creation of playing pitches, geophysical survey identified corresponding sub-surface remains in M7, M9 and M10. Widespread magnetic disturbance in these areas does, however, mean that additional archaeological features remained beyond detection. Further to the south, sub-surface remains related to the no longer extant coastguard station, brick works and hosiery factory may survive and therefore any proposed works in these areas may contribute to our understanding of 19th and early 20th century Balbriggan.

Overall, the high potential for archaeological remains was confirmed by the geophysical survey undertaken across much of the park in 2020, where a range of anomalies suggested sub-surface remains survive for both known monuments (e.g., mound DU002-003 and enclosure DU002-016) but also previously unknown sites across areas M1–M10 (Figures 13 and 15–24).

To ensure long-term protection of the known monuments within Bremore Regional Park, it is recommended that a Conservation and Management Plan is completed in advance of any development works. This will include establishing buffer zones around the monuments, which will mitigate against development in these areas, including landscaping and planting, help to inform the final designs and offer recommendations in relation to signage/educational opportunities. This should also include an assessment of the potential impact of climate change and coastal erosion on these monuments (see Daly 2019).

Based on the *Bremore Regional Park Development Project: Part 8 Planning Application*, the following mitigations are also recommended:

- Across the Balbriggan Sports & Recreational Hub, the Central Zone and the Coastal Park, where groundworks are required for the network of paths, erection of signage, seating, outdoor gym equipment, play areas, resurfacing and landscaping works, public lighting, sports facility lighting, planting, drainage, etc., it is recommended that the areas are subject to:
    - Archaeological monitoring, and
    - Archaeological fieldwalking (Surface Artefact Collection) and/or scanning of removed topsoil for lithics and other artefacts as deemed necessary. This may include licenced metal detecting of displaced topsoil.
- *Balbriggan Sports & Recreational Hub*: This area, including the proposed changing & toilet facilities and car parking, is on the northern side of the Cardy Rock development, within geophysical survey areas M2 and M3, and has high potential for sub-surface archaeological remains, it is recommended that the area is subject to:
    - Archaeological test excavations in advance of any groundworks; these will target the results of the geophysical survey.
- *Coastal Park*: While no groundworks are proposed in the areas adjacent the mounds (DU002-003 and DU002-017), enclosure (DU002-016) and Martello Tower (DU002-004), the wider area is likely to contain sub-surface remains and this area is known to have previously contained the coastguard station, brick works and part of the Balbriggan Sea Mills Hosiery Company. While the terrain across much of this area is already developed (lawn area with playground, bandstand, public seating, signage and some outdoor gym equipment) and was not suitable for geophysical survey, the areas that were (M8–M10) did contain linear/rectangular anomalies that suggested buried foundations. Where groundworks are required for the various elements of the Coastal Park (basketball half court, skate bowl, grass mounds, amenity planting, surface treatments, terraced steps, etc.) and associated car parking facilities, it is recommended that the area is subject to archaeological monitoring.

The varied heritage resources should also be assessed for inclusion on signage and other public dissemination platforms, this includes the known archaeological monuments and built heritage, the maritime and coastal heritage and the industrial heritage. Both designated and non-designated cultural heritage should be considered, including incorporating any new information that is gained through the archaeological assessments undertaken in advance of the park developments detailed above, from the geophysical survey, test excavations and monitoring to the risks associated with climate change and coastal erosion. In order to facilitate public engagement additional surveying techniques may also be employed, such as photogrammetry and laser scanning to generate 3D models (Structure from Motion), drone photography and video. Accessibility for diverse audiences must be considered, ranging from children to non-

English speakers, to deaf/hard of hearing and visually impaired individuals. Some examples of potential heritage dissemination platforms include:

- Traditional signage to alert visitors to important locations and events within the park and surrounding landscape and seascape. These could include QR codes to provide additional narratives and more interactive approaches through a variety of digital technologies (e.g., video, animation, 3D models of buildings and artefacts, reconstruction illustrations, oral histories gathered locally, etc.).
- Smartphone tour(s) via mobile app, potentially ones that are storytelling-driven.
- Augmented reality app to recreate the past landscapes of the park as they changed through time.

In line with the findings of the Horizon 2020 expert group on cultural heritage (European Commission 2015), the innovative use of cultural heritage has the potential to actively engage the local community and its digitization can facilitate community access and collective knowledge sharing, resulting in local people taking more responsibility for their own cultural landscapes, monuments, collections and intangible heritage. Balbriggan, and Fingal generally, have very active community archaeology and heritage groups and their continued involvement with the development of the park's cultural heritage resources must also be considered as the project moves forward.

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Prepared by:	Kerri Cleary
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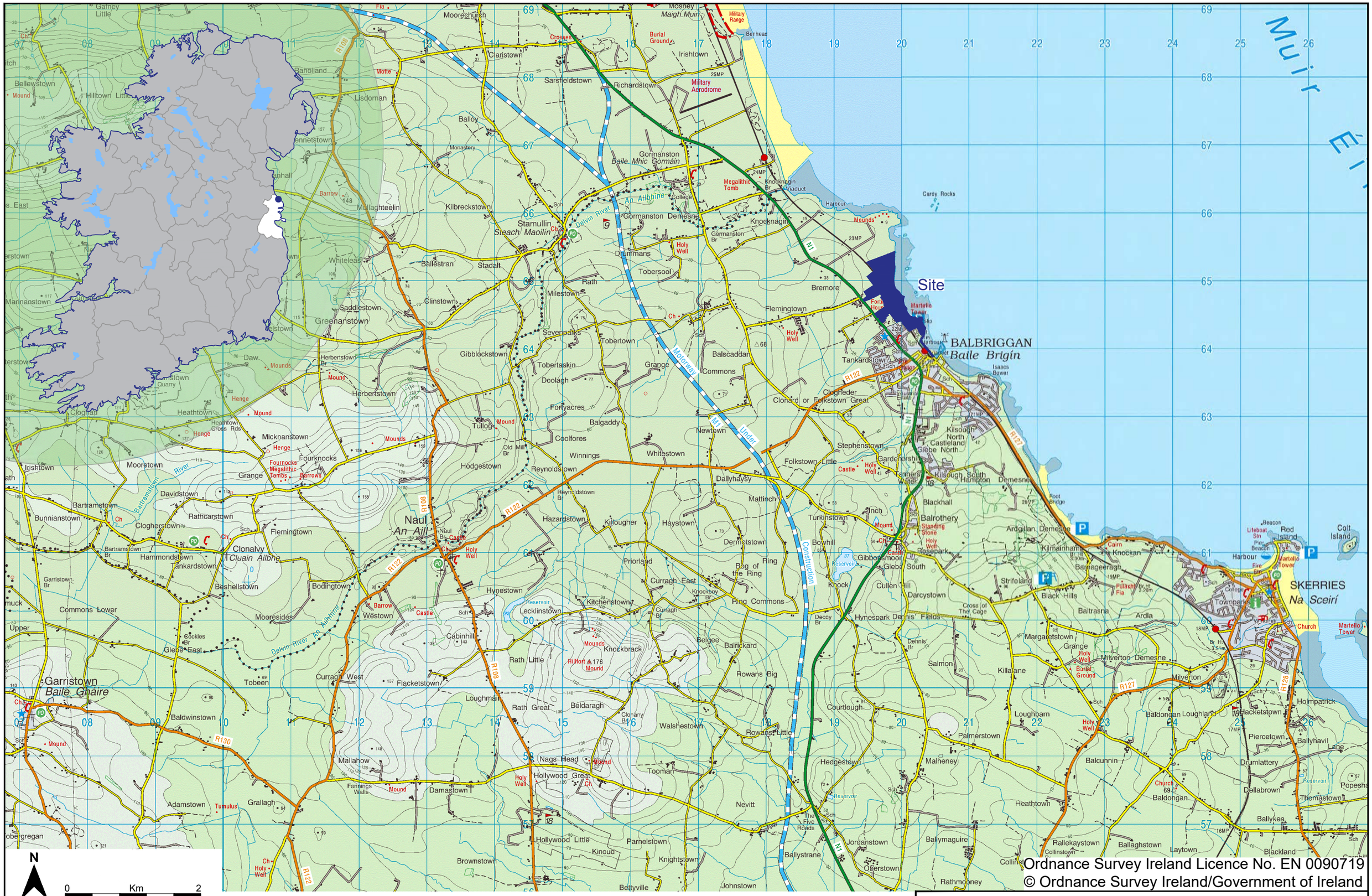
Approved by:	Donald Murphy
Signed:	Donald Murphy



Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1001	**Fig. 1**	Location of site
Issued for Archaeological Impact Assessment	**Scale** 1:50,000 @ A3		

TARGET ARCHAEOLOGICAL GEOPHYSICS SCV

Archaeological Consultancy Services Unit acsu.ie

ME034-007---- Bridge
DU001-010---- Bridge
DU002-015---- Quay
DU002-019---- Field system
DU002-018---- Enclosure
Site
Reg. No. 11304001
DU002-014---- Field system
01E0370
01E0311
17E0302
17E0503
95E0183
DU002-002001- House - fortified house
Reg. No. 11304003
DU002-002002- Church
DU002-002005-/06- Architectural fragment
DU002-002003- Graveyard
DU002-003---- Mound
DU002-016---- Enclosure
Reg. No. 11305010
DU002-017---- Mound
Reg. No. 11305009
DU002-004---- Martello tower
DU001-030---- Kiln - corn-drying
DU001-031---- Enclosure
DU001-003001- Church
DU001-003005- Ecclesiastical enclosure
DU001-003003- Ritual site - holy well
DU001-003002- Graveyard
DU001-003004- Graveslab
DU001-004---- Ritual site - holy well
DU001-022001- Excavation - miscellaneous
DU001-022002- Pit
02E0165
Reg. No. 11304004
Reg. No. 11305008
Reg. No. 11305017
DU001-015---- Enclosure
DU001-016---- Industrial site
DU001-017---- Kiln - corn-drying
DU001-023---- Field system
DU001-026---- Excavation - miscellaneous
DU001-024---- Enclosure
DU002-011---- House - 16th/17th century
Reg. No. 11305006
Reg. No. 113050052
Reg. No. 11305005
Reg. No. 11305011
Reg. No. 11305018
Reg. No. 11305020
99E0727
03E1920
DU001-025---- Enclosure
DU001-014---- House - Neolithic
DU001-028---- Excavation - miscellaneous
DU002-020---- Enclosure
Reg. No. 11305021
DU001-018---- Redundant record
DU001-029---- Pit
DU002-021---- Burnt spread

KNOCKNAGIN
Knocknagin Rd
Tobersool Ln
BREMORE
COMMONS (2nd Division)
FLEMINGTOWN
Flemington Ln
BALSCADDAN
COMMONS (1st Division)
TANKARDSTOWN

N
0 m 500

● National Monuments Service site
▲ National Inventory of Architectural Heritage site
✡ Previous Archaeological Investigations

Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1002	**Fig. 2** Location of site, previous archaeological investigations and nearby *Sites and Monuments Record* sites	TARGET ARCHAEOLOGICAL GEOPHYSICS GCV
Issued for Archaeological Impact Assessment	**Scale** 1:10,000 @ A3		Archaeological Consultancy Services Unit acsu.ie

Site

Railway bridge (RPS No. 12)

Balbriggan Railway Bridge - Reg. No. 11304001

Bremore Castle (RPS No. 14)

St. Molaga's Church and graveyard (RPS No. 13)

Bath house and boat house (RPS No. 18)

Bremore Cottage / Lodge (RPS No. 15)

Balbriggan Lifeboat Station (former) - Reg. No. 11305010

Balbriggan Martello Tower - Reg. No. 11305009

Martello Tower (RPS No. 17)

Smyth's Chimney Stack - Reg. No. 11305008

Free-standing industrial chimney stack of former Sea Mills Hosiery Factory (RPS No. 19)

Balbriggan Railway Station (RPS No. 30)

Balbriggan Railway Station - Reg. No. 11305001

Station Master's House (RPS No. 31)

Station Master's House - Reg. No. 11305002

Former RNLI boathouse (RPS No. 35)

N

0 m 500

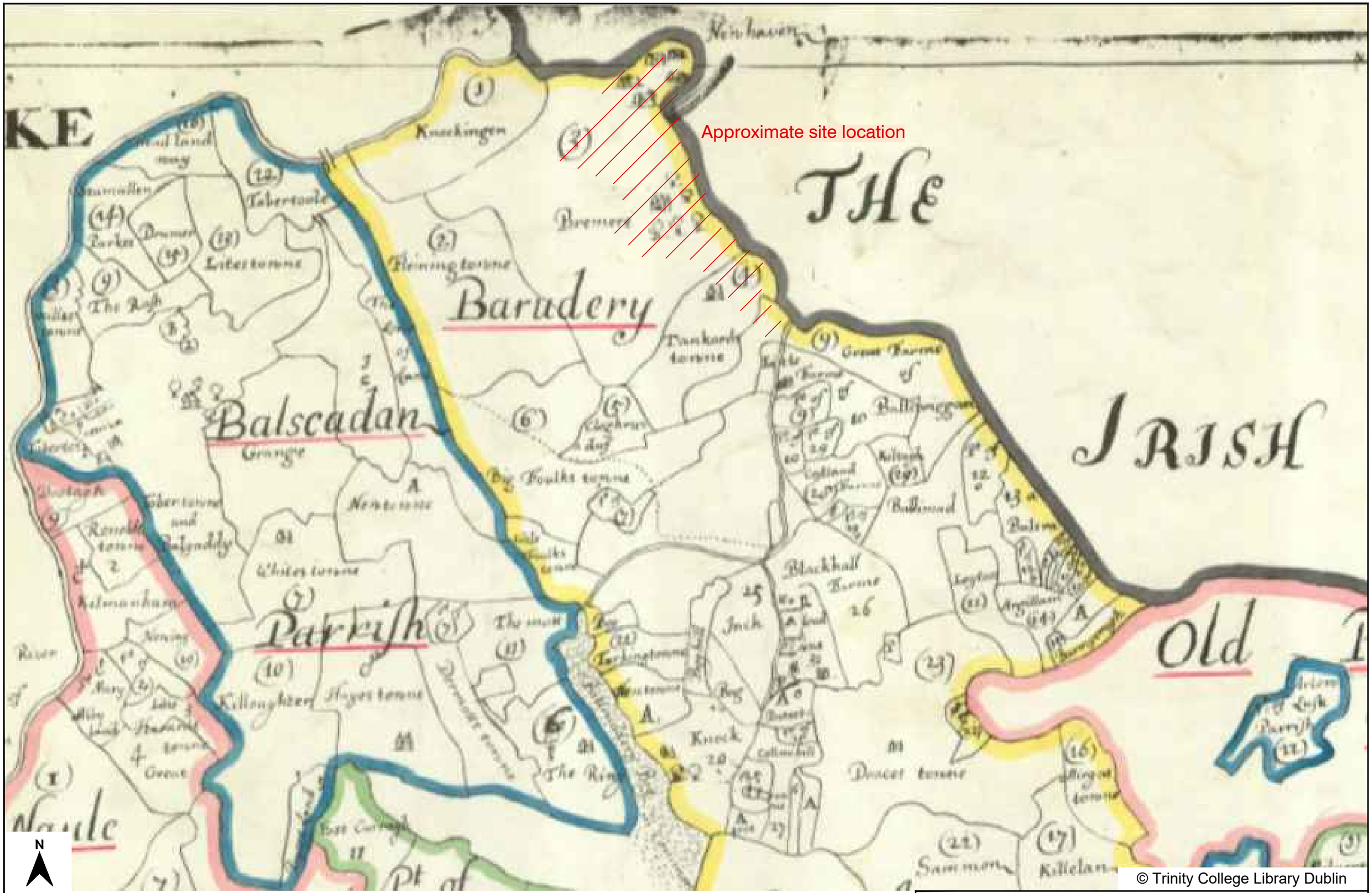
▲ National Inventory of Architectural Heritage site

■ Protected Structures

Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1003	**Fig. 3**	Location of site and nearby Protected Structures and NIAH sites
Issued for Archaeological Impact Assessment	**Scale** 1:10,000 @ A3		

TARGET ARCHAEOLOGICAL GEOPHYSICS BOX

Archaeological Consultancy Services Unit acsu.ie



Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1004	**Fig. 4**	Extract from Down Survey map of County Dublin, Barony of Balrudderry (1654-56), showing approximate location of site
Issued for Archaeological Impact Assessment	**Scale** Do not scale		

TARGET ARCHAEOLOGICAL GEOPHYSICS GCV

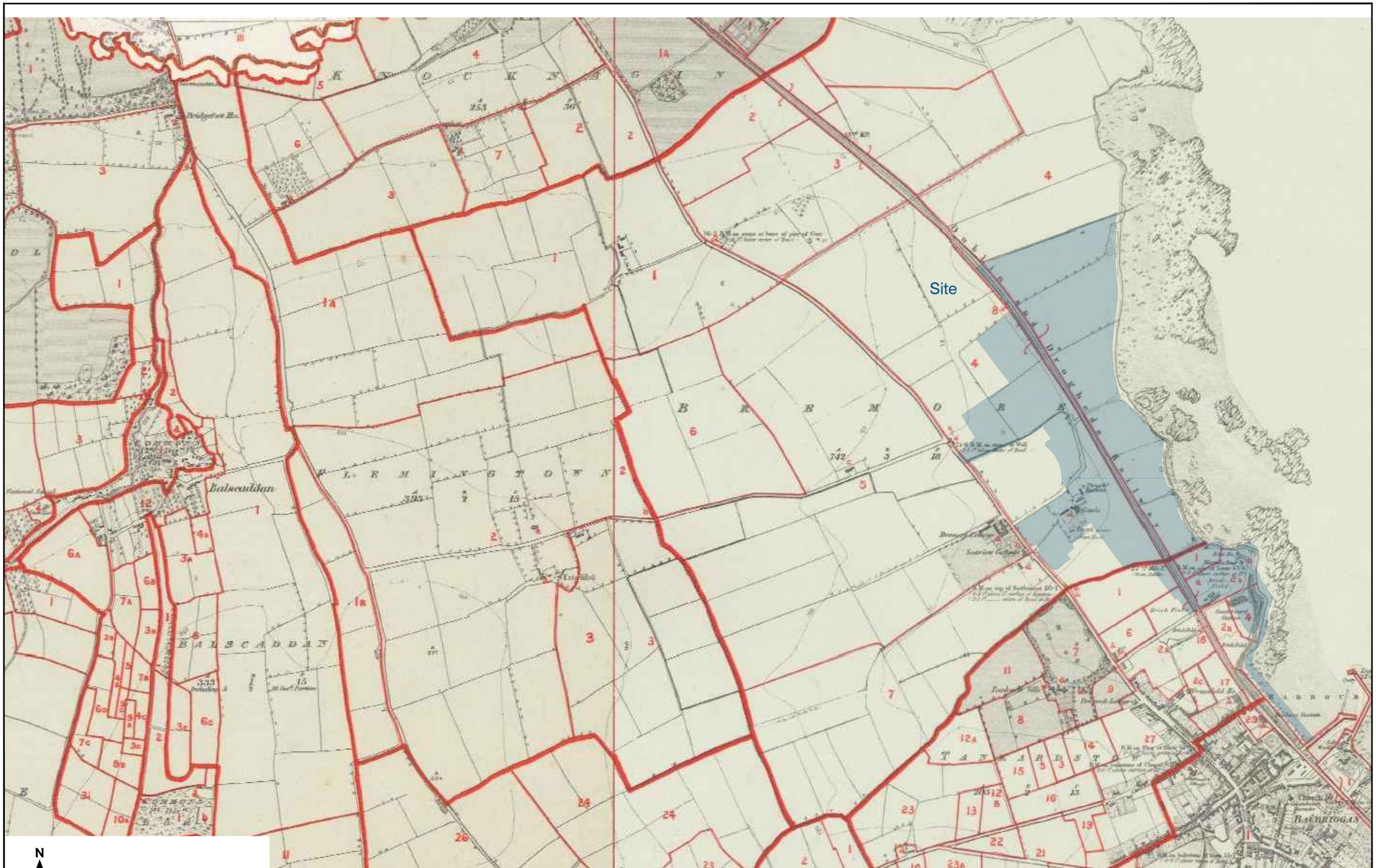
Archaeological Consultancy Services Unit acsu.ie

Project Bremore Regional Park, Balbriggan, North County Dublin	**Issued for** Archaeological Impact Assessment		
Fig. 5 Extract from Rocque's map of County Dublin, northeast sheet (1760), showing location of site		**Drawing No.** 1911_C1005	
		Scale Do not scale	

TARGET ARCHAEOLOGICAL GEOPHYSICS BOY

Archaeological Consultancy Services Unit acsu.ie

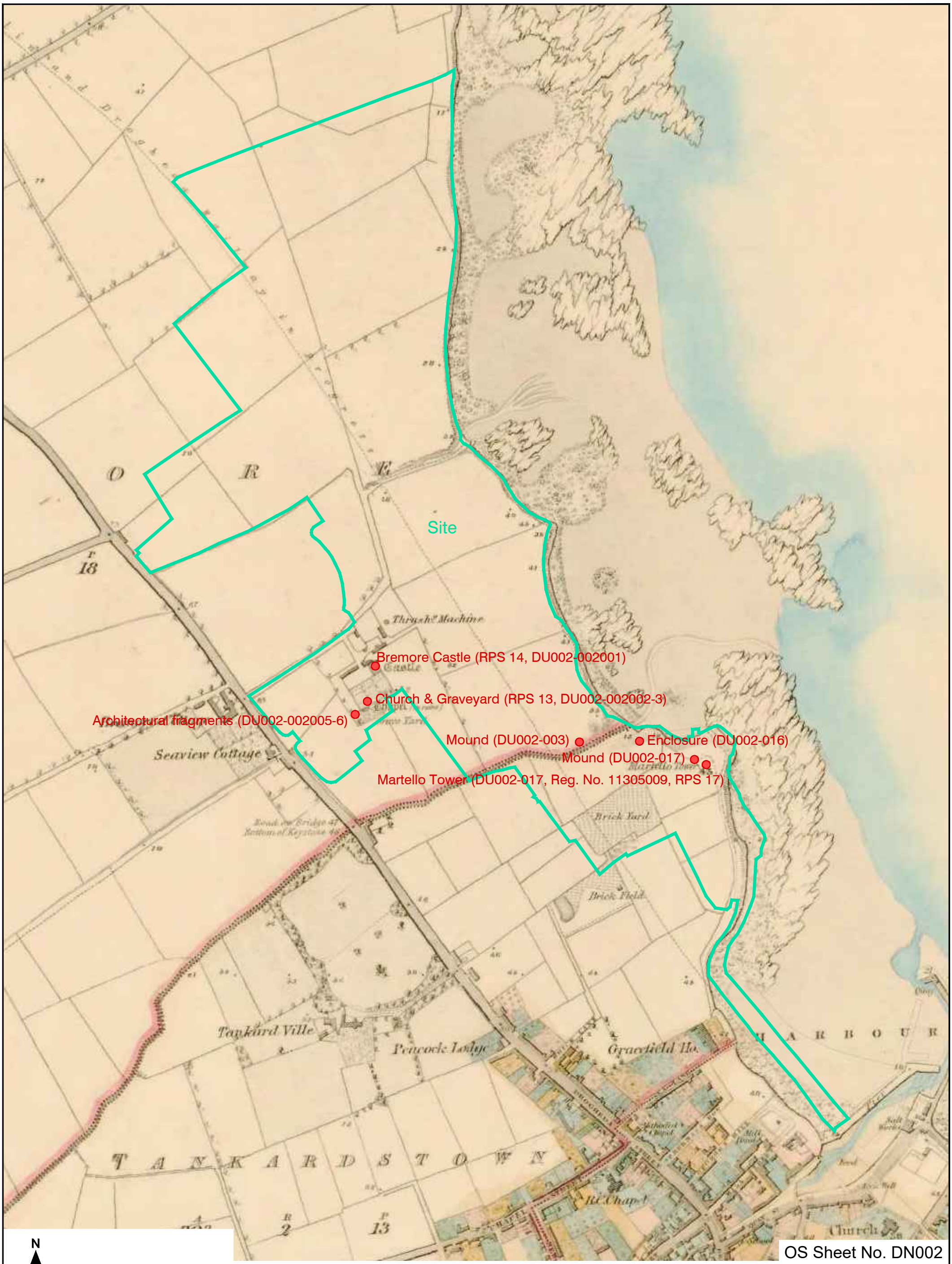
Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1006	**Fig. 6** Extract from Taylor and Skinner's ' *Maps of the roads of Ireland* ' - Map 2 road from Dublin to Donaghadee (1777), showing approximate location of site	TARGET ARCHAEOLOGICAL GEOPHYSICS GCV Archaeological Consultancy Services Unit acsu.ie
Issued for Archaeological Impact Assessment	**Scale** Not to scale		



Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1007	**Fig. 7**	Extract from Griffith's Valuation (1847-64), showing location of site
Issued for Archaeological Impact Assessment	**Scale** 1:10,000 @ A3		

TARGET ARCHAEOLOGICAL GEOPHYSICS GCV

Archaeological Consultancy Services Unit acsu.ie



Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 8	Extract from 1st edition Ordnance Survey (OS) 6-inch map (surveyed 1836 - published 1843), showing location of site	**Drawing No.**	1911_C1008
		Scale	1:5,000 @ A3

TARGET ARCHAEOLOGICAL GEOPHYSICS GCV

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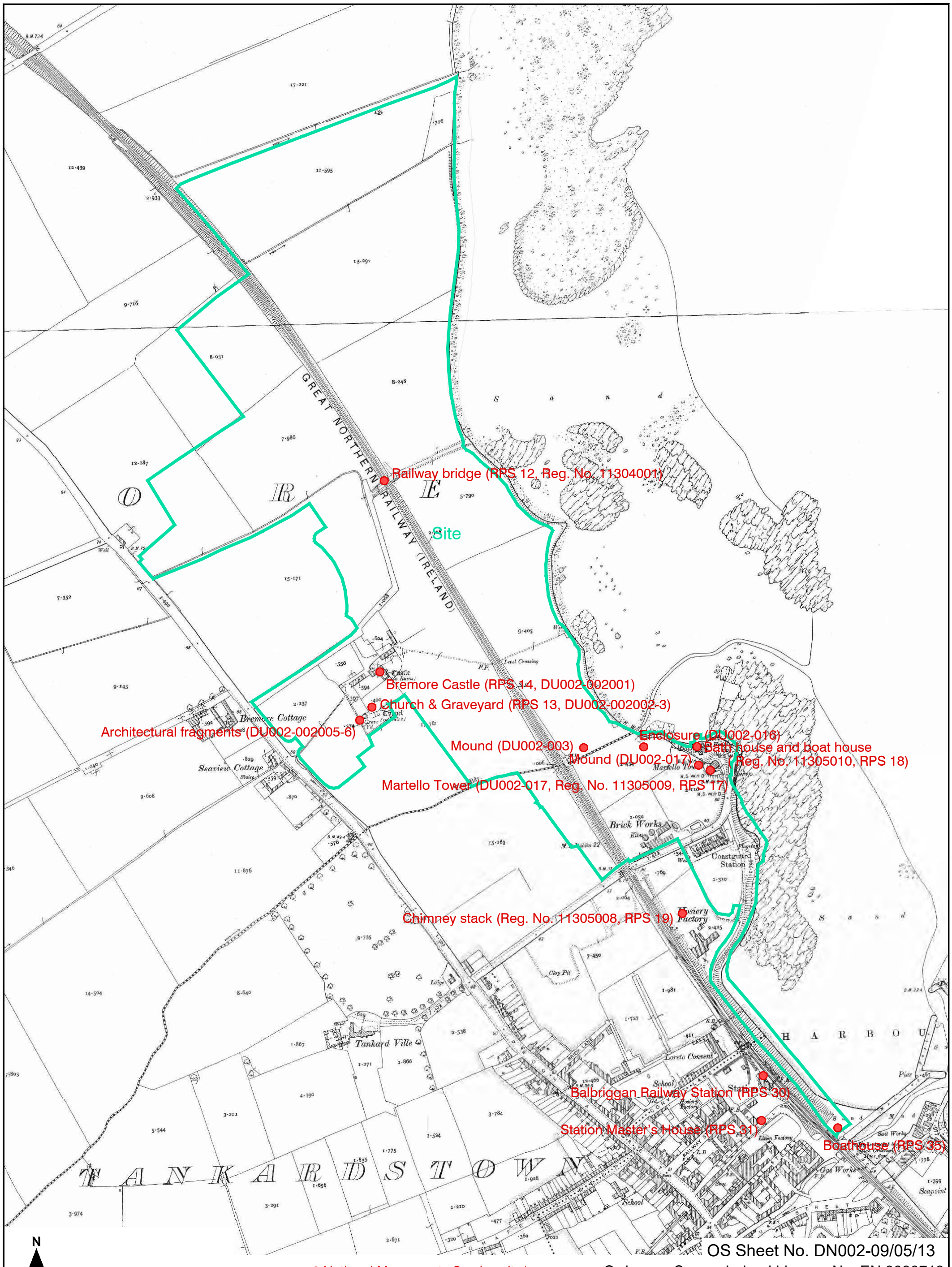

OS Sheet No. DN002-09/05/13

National Monuments Service site/ NIAH/ Protected Structures

Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 9	Extract from 3rd edition Ordnance Survey (OS) 25-inch map (surveyed 1906 - published 1908), showing location of site	**Drawing No.**	1911_C1009
		Scale	1:5,000 @ A3

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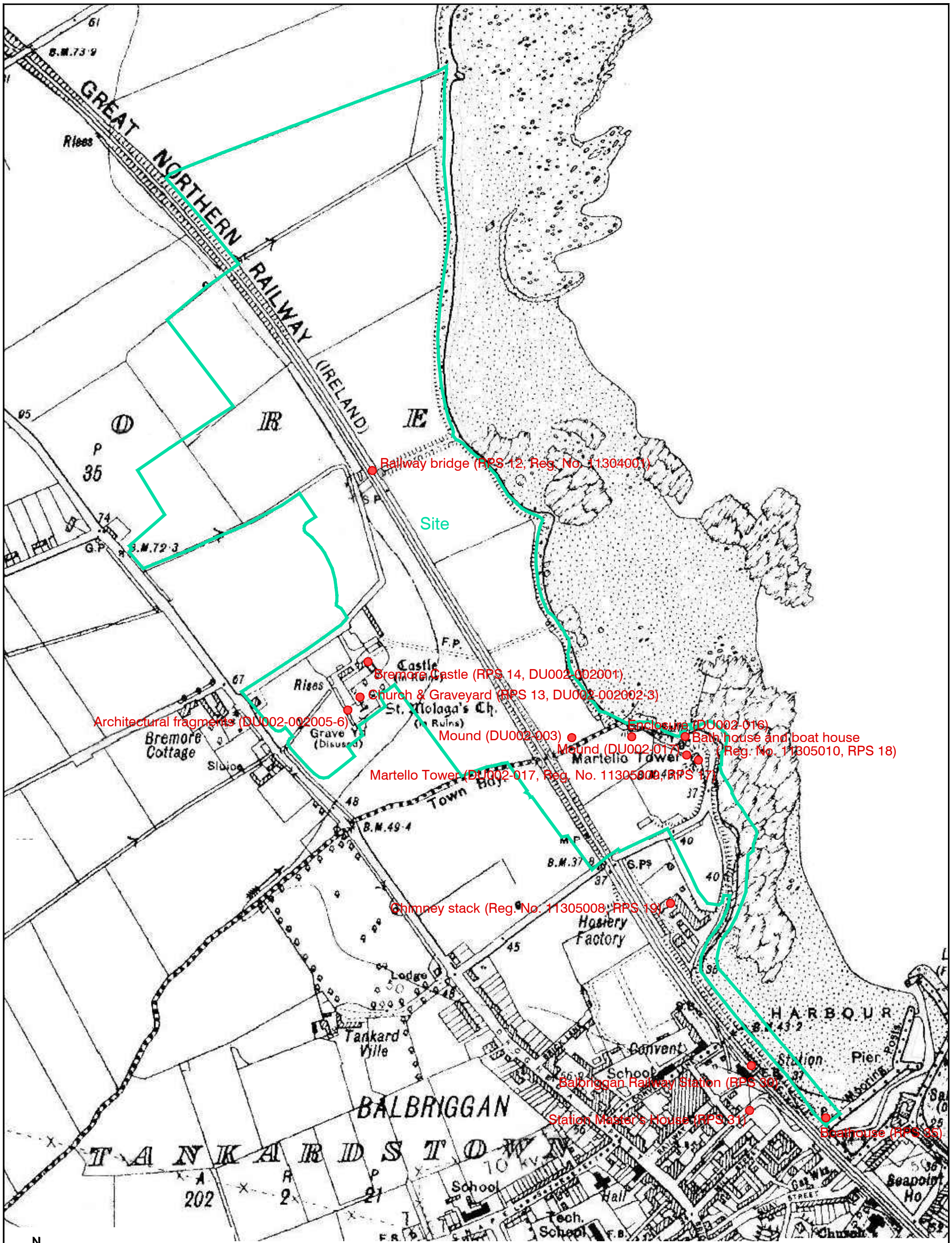

National Monuments Service site/ NIAH/ Protected Structures

OS Sheet No. DN002

Ordnance Survey Ireland Licence No. EN 0090719

Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 10	Extract from Cassini edition Ordnance Survey (OS) 6-inch map (1935-38), showing location of site	**Drawing No.**	1911_C1010
		Scale	1:5,000 @ A3

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Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 11	Aerial view of site	**Drawing No.**	1911_C1011
		Scale	1:5,000 @ A3

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Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1012	**Fig. 12**	Aerial view showing close up of enclosure DU002-016----
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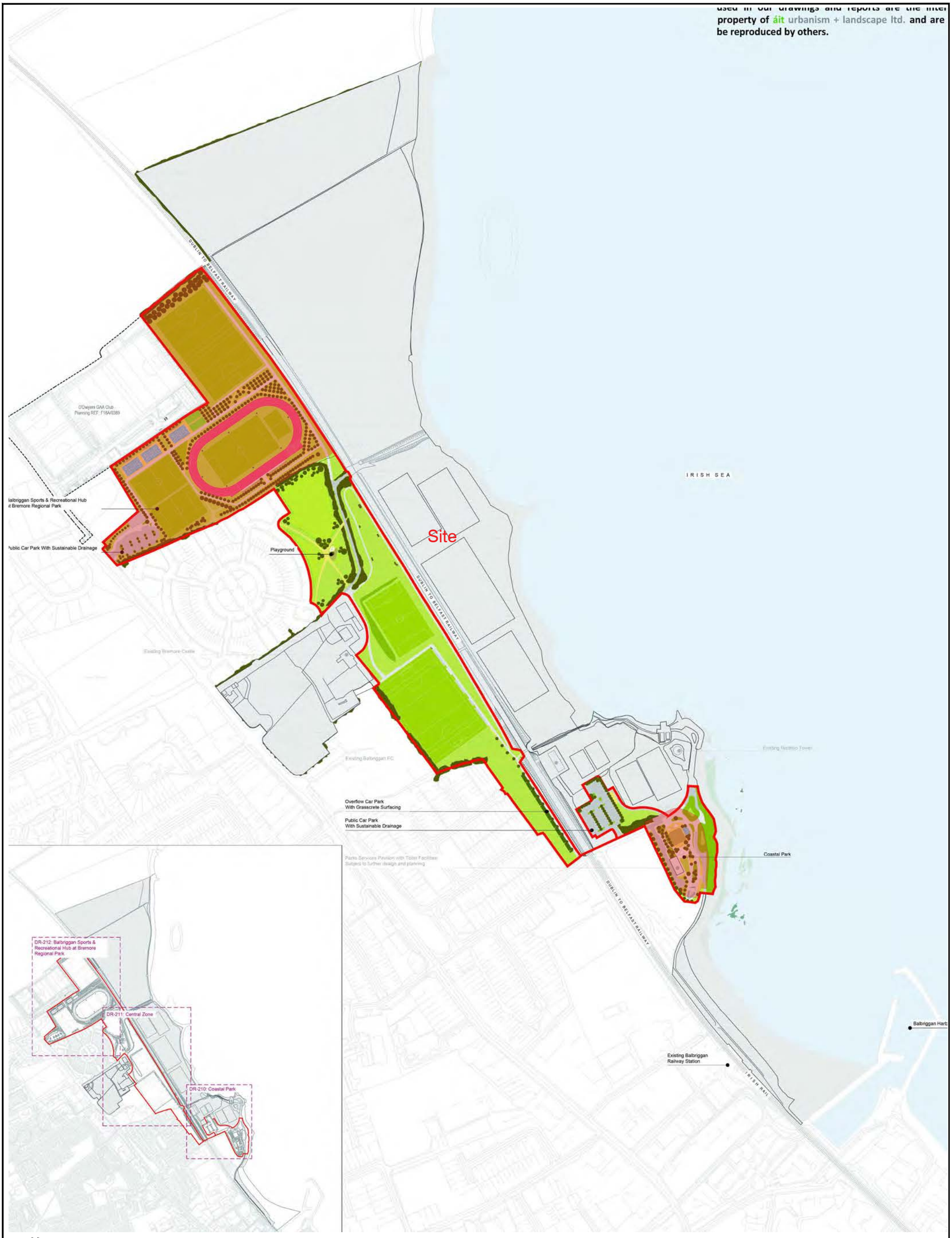
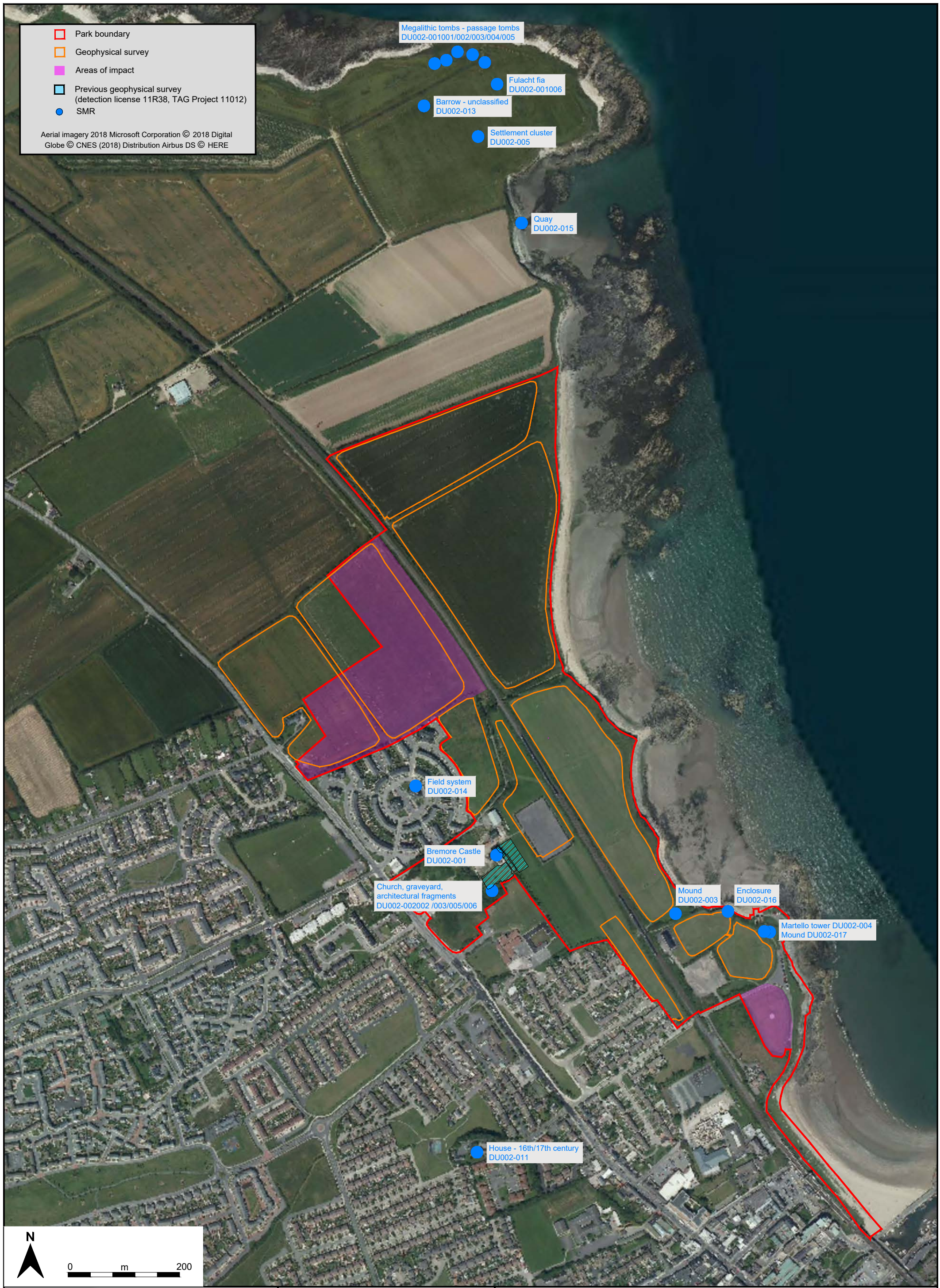


Areas of impact

Project Bremore Regional Park, Balbriggan, North County Dublin	**Issued for** Archaeological Impact Assessment	TARGET ARCHAEOLOGICAL GEOPHYSICS GCV	Archaeological Consultancy Services Unit acsu.ie
Fig. 13 Details of site development , showing location of impacted areas	**Drawing No.** 1911_C1013		
	Scale 1:5,000 @ A3		



Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 14	Areas deemed suitable for geophysical survey outlined in orange	**Drawing No.**	1911_C1014
		Scale	1:6,000 @ A3

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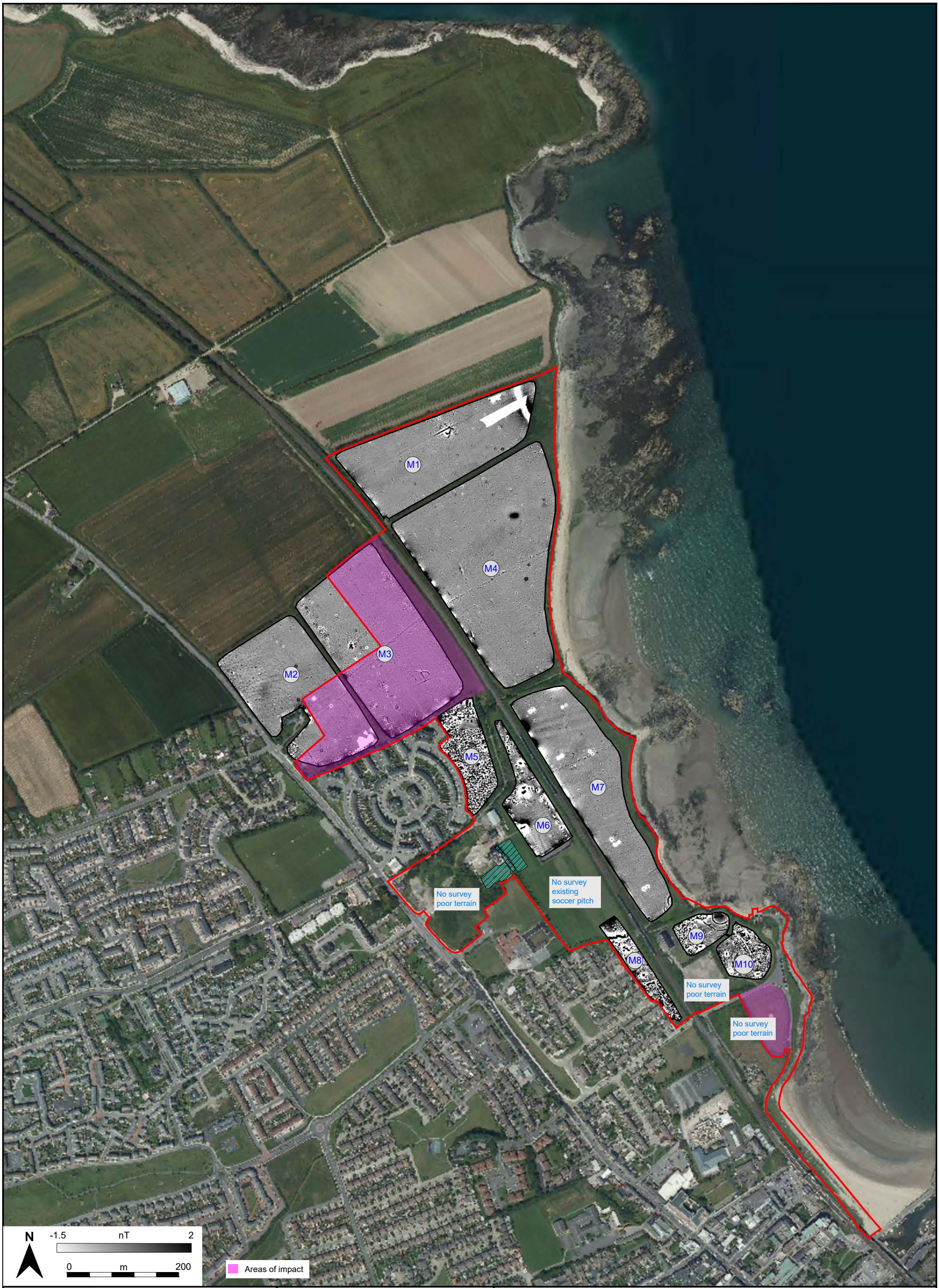

Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 15	Summary of geophysical survey results (greyscales) for M1-M10	**Drawing No.** 1911_C1015	
		Scale 1:6,000 @ A3	

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Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 16	Geophysical survey results (greyscales) for M1 and M4	**Drawing No.**	1911_C1016
		Scale	1:1,500 @ A3

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Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1017	**Fig. 17**	Geophysical survey results (greyscales) for M2 and M3
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Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 18	Geophysical survey results (greyscales) for M5, M6 and M7	**Drawing No.**	1911_C1018
		Scale	1:1,500 @ A3

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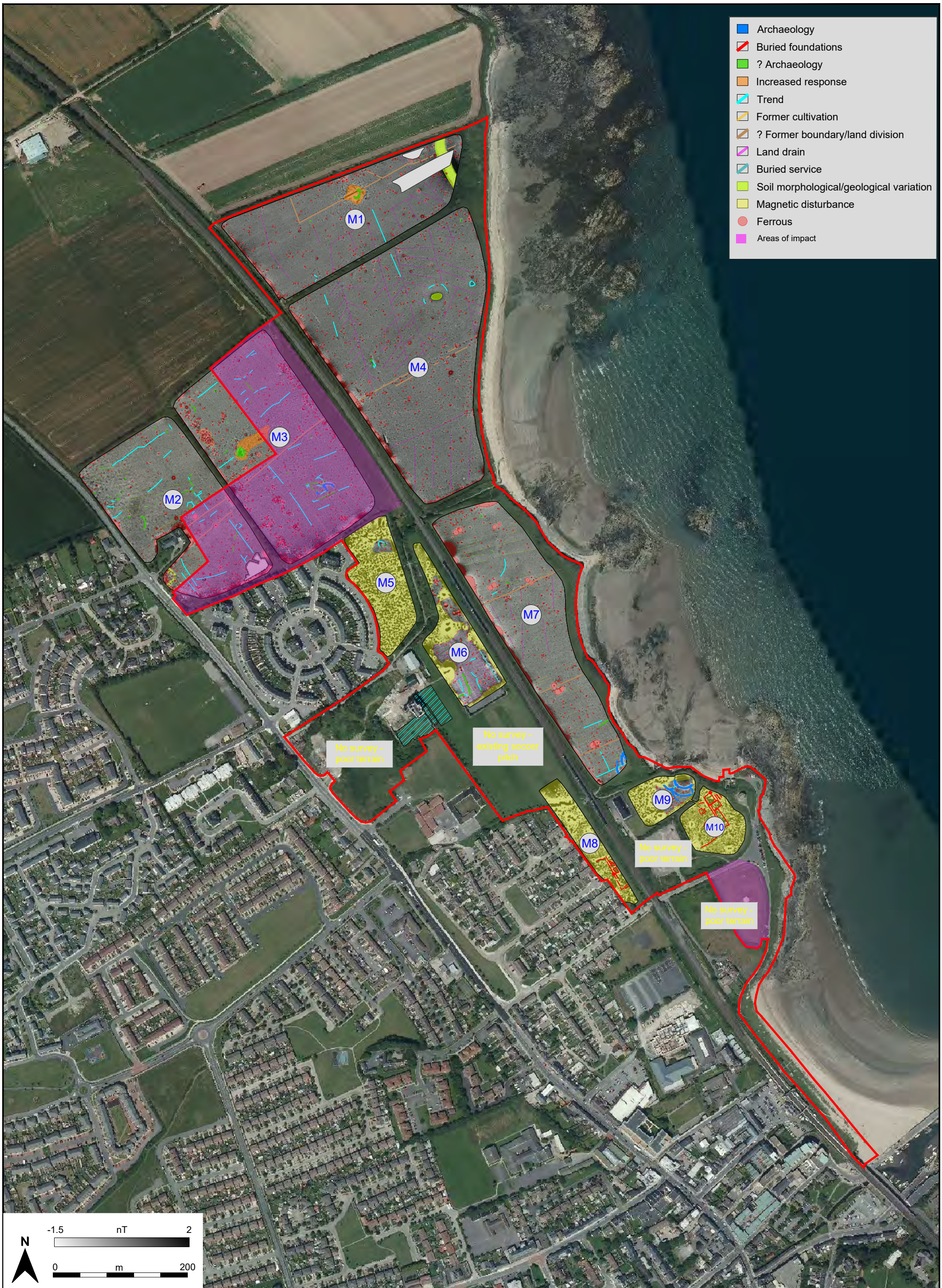
Fig. 19 Geophysical survey results (greyscales) for M8, M9 and M10	**Drawing No.** 1911_C1019		
	Scale 1:1,500 @ A3		



Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 20	Summary of geophysical survey interpretations for M1-M10	**Drawing No.** 1911_C1020	
		Scale 1:5,000 @ A3	

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Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 21	Geophysical survey interpretations for M1 and M4	**Drawing No.**	1911_C1021
		Scale	1:1,500 @ A3

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Project Bremore Regional Park, Balbriggan, North County Dublin	**Drawing No.** 1911_C1022	**Fig. 22**	Geophysical survey interpretations for M2 and M3
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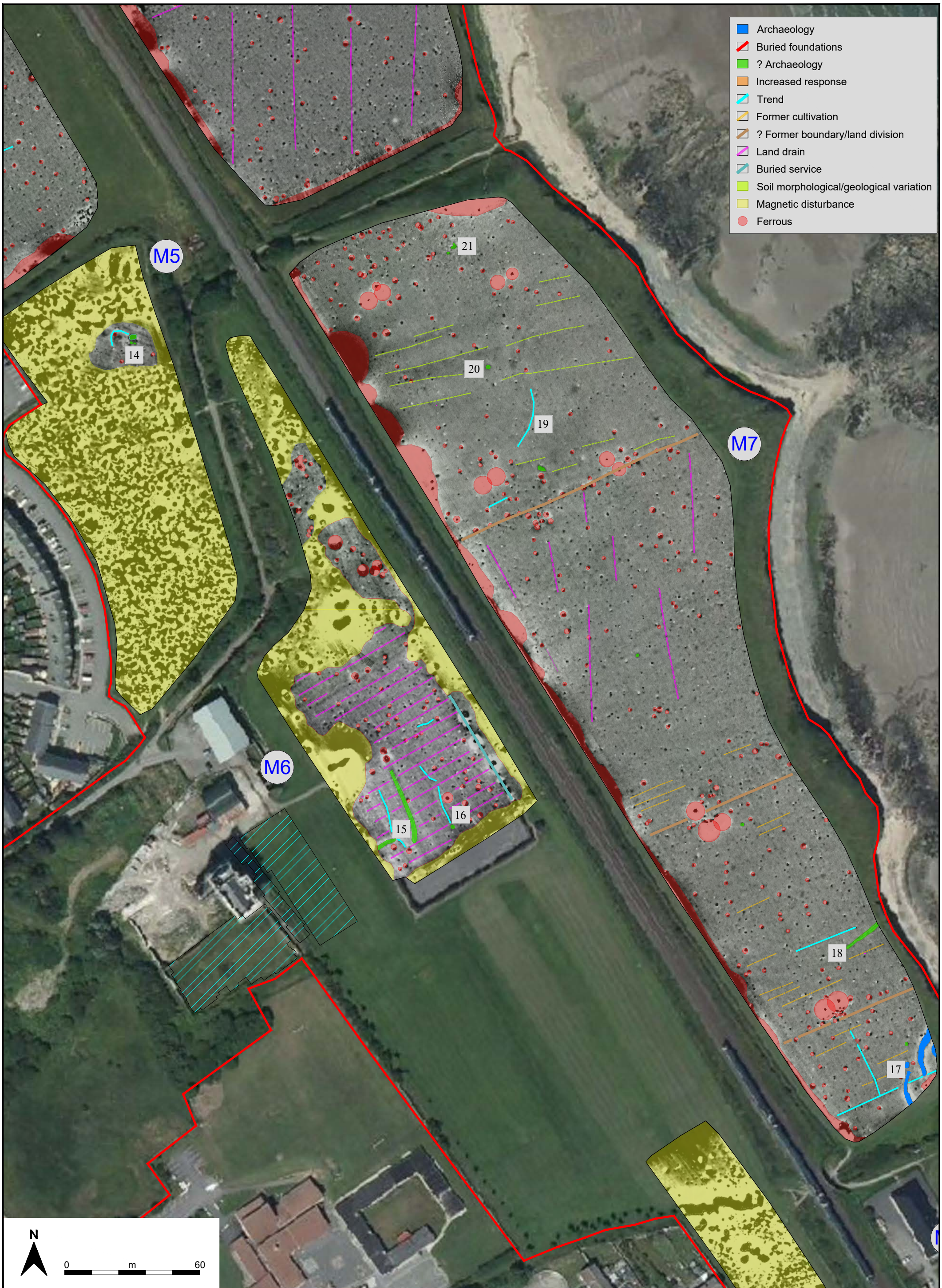

Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 23	Geophysical survey interpretations for M5, M6 and M7	**Drawing No.**	1911_C1023
		Scale	1:1,500 @ A3

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Project	Bremore Regional Park, Balbriggan, North County Dublin	**Issued for**	Archaeological Impact Assessment
Fig. 24	Geophysical survey interpretations for M8, M9 and M10	**Drawing No.**	1911_C1024
		Scale	1:1,500 @ A3

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Plate 1: View from rear of Martello Tower, looking northwest towards enclosure (DU002-016) and mound (DU002-003).

Plate 2: Area of mound (DU002-003), looking NNW from path to beach.

Plate 3: Mound (DU002-017) with Martello Tower (DU002-004) on top, looking north.

Plate 4: Area of enclosure (DU002-016), in use as football pitch, looking northeast.

Plate 5: St Molaga's church (DU002-002002) and graveyard (DU002-002003), looking southwest.

Plate 6: Graveyard (DU002-002003) with Bremore Castle (DU002-002001) in background, looking north.

Plate 7: Bremore Castle (DU002-002001), looking northeast.

Plate 8: Martello Tower (DU002-004) on mound (DU002-017), looking southeast across geophysical survey area M10.

Plate 9: Geophysical survey area M5 to rear of Cardy Rock development, looking north from wall around Bremore Castle.

Plate 10: Geophysical survey area M2, looking north.

Plate 11: Geophysical survey area M3, looking north.

Plate 12: Geophysical survey areas M1 and M4, looking northeast.