

**ARCHAEOLOGICAL ASSESSMENT
AT
ASHTOWN LANE,
BALLYNERRIN UPPER,
COUNTY WICKLOW**

**ON BEHALF OF:
WICKLOW COUNTY COUNCIL**

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IAC PROJECT REF.: J3381

ABSTRACT

Irish Archaeological Consultancy Ltd has prepared this report on behalf of Wicklow County Council, to study the impact, if any, on the archaeological and historical resource of the proposed development at Ashtown Lane, Ballynerrin Upper, Co. Wicklow (ITM 730064/692683). The assessment was carried out by Ross Waters of IAC Ltd.

The proposed development area is currently formed by a field within the townland of Ballynerrin Upper in County Wicklow. There are no recorded monuments within the site and very few have been noted in the surrounding environs. The nearest consists of a cist (WI025-014), c. 785m to the north-northeast in the townland of Ballynerrin. No specific sites of archaeological potential were noted within the site during analysis of the baseline information.

A field inspection has been carried out as part of this assessment. This revealed that the proposed development area contains a significant west-east slope, where the terrain drops by approximately 20m. Whilst the site occupies an elevated position overlooking Wicklow Town and the coast, the presence of the slope is likely to have discouraged settlement during either the prehistoric or historic periods.

It remains possible that the western margins of the site, which are the most elevated, possess some archaeological potential, along with the more level eastern area (adjacent to the R751). Ground disturbances associated with future development have the potential to adversely impact on any buried archaeological remains that may be present within these areas.

It is recommended that the western and eastern margins of the proposed development area are subject to archaeological testing prior to construction going ahead. This should be carried out by an archaeologist under licence from the DoCHG.

If any features of archaeological potential are discovered during the course of the works, further archaeological mitigation may be required, such as preservation *in-situ* or by record, along with archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the DoCHG.

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1 INTRODUCTION

1.1 GENERAL

The following report details an archaeological assessment undertaken in advance of potential future development at Ashtown Lane, Wicklow Town (Figure 1). This assessment has been carried out to ascertain the potential impact of the proposed development on the archaeological and historical resource that may exist within the area. The assessment was undertaken by Ross Waters of Irish Archaeological Consultancy Ltd (IAC), on behalf of Wicklow County Council.

The archaeological assessment involved a detailed study of the archaeological and historical background of the proposed development site and the surrounding area. This included information from the Record of Monuments and Places of Wicklow (Figure 2), the topographical files within the National Museum and all available cartographic and documentary sources for the area. A field inspection has also been carried out with the aim to identify any previously unrecorded features of archaeological or historical interest.

1.2 THE DEVELOPMENT

The proposed development area may be subject to future residential development by Wicklow County Council and as such this assessment is being carried out in order to identify any archaeological risks to future development. At the time of writing no plans were available for the site.

2 METHODOLOGY

Research for this report was undertaken in two phases. The first phase comprised a paper survey of all available archaeological, historical and cartographic sources. The second phase involved a field inspection of the site.

2.1 PAPER SURVEY

- Record of Monuments and Places for County Wicklow;
- Sites and Monuments Record for County Wicklow;
- National Monuments in State Care Database;
- Preservation Orders List;
- Topographical files of the National Museum of Ireland;
- Cartographic and written sources relating to the study area;
- Wicklow County Development Plan 2016-2022;
- Wicklow Town – Rathnew Development Plan 2013-2019;
- Aerial photographs; and
- Excavations Bulletin (1970–2017).

Record of Monuments and Places (RMP) is a list of archaeological sites known to the National Monuments Section, which are afforded legal protection under Section 12 of the 1994 National Monuments Act and are published as a record.

Sites and Monuments Record (SMR) holds documentary evidence and field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g. only a site type and townland are recorded. These are known to the National Monuments Section as ‘un-located sites’ and cannot be afforded legal protection due to lack of locational information. As a result, these are omitted from the Record of Monuments and Places. SMR sites are also listed on a website maintained by the Department of Culture, Heritage and the Gaeltacht (DoCHG) – www.archaeology.ie.

National Monuments in State Care Database is a list of all the National Monuments in State guardianship or ownership. Each is assigned a National Monument number whether in guardianship or ownership and has a brief description of the remains of each Monument.

The Minister for the DoCHG may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with without the written consent of the Minister.

Preservation Orders List contains information on Preservation Orders and/or Temporary Preservation Orders, which have been assigned to a site or sites. Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

The topographical files of the National Museum of Ireland are the national archive of all known finds recorded by the National Museum. This archive relates primarily to artefacts but also includes references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information on the discovery of sites of archaeological significance.

Cartographic sources are important in tracing land use development within the development area as well as providing important topographical information on areas of archaeological potential and the development of buildings. Cartographic analysis of all relevant maps has been made to identify any topographical anomalies or structures that no longer remain within the landscape.

- William Petty, Down Survey Map, Barony of Newcastle, Parish of Wicklow and Kilpoole, c. 1655.
- Jacob Neville, Map of County Wicklow, 1760.
- Ordnance Survey maps of County Wicklow, 1838 and 1908.

Documentary sources were consulted to gain background information on the archaeological, architectural and cultural heritage landscape of the proposed development area.

Development Plans contain a catalogue of all the Protected Structures and archaeological sites within the county. The Wicklow County Development Plan (2016–2022) and Wicklow Town – Rathnew Development Plan (2013-2019) were consulted to obtain information on cultural heritage sites in and within the immediate vicinity of the proposed development area.

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its likely potential for archaeology. A number of sources were consulted including aerial photographs held by the Ordnance Survey and Google Earth.

Excavations Bulletin is a summary publication that has been produced every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 and since 1987 has been edited by Isabel Bennett. This information is vital when examining the archaeological content of any

area, which may not have been recorded under the SMR and RMP files. This information is also available online (www.excavations.ie) from 1970–2017.

2.2 FIELD INSPECTION

Field inspection is necessary to determine the extent and nature of archaeological and historical remains, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information.

The archaeological field inspection entailed -

- Walking the proposed development and its immediate environs.
- Noting and recording the terrain type and land usage.
- Noting and recording the presence of features of archaeological or historical significance.
- Verifying the extent and condition of any recorded sites.
- Visually investigating any suspect landscape anomalies to determine the possibility of their being anthropogenic in origin.

3 RESULTS OF DESKTOP STUDY

3.1 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The area of proposed development consists of 3.7ha of greenfield that is located to the southwest of Wicklow Town in the townland of Ballynerrin Upper, parish of Drumkay, and barony of Arklow. The R751 bounds the site to the east with residential development to the immediate north and east. Open agricultural fields are situated to the west and south. The nearest recorded monument consists of a cist (WI025-014), which is located c. 785m to the north-northeast.

3.1.1 Prehistoric Period

Mesolithic Period (8000–4000 BC)

Until recently the Mesolithic period was believed to have been the earliest time for human occupation of the island of Ireland, however, recent research suggests there may have been human activity in the southern half of Ireland as early as the Upper Palaeolithic (Dowd and Carden, 2016). However, the Mesolithic period is still accepted as the first time there is evidence for widespread occupation in Ireland, as a large portion of the north of the country would have been beneath extensive glaciation earlier than this. During the Mesolithic Period, people lived transient lives, hunting, fishing and foraging for subsistence. Coastal and riverine resources were of key importance to these communities. As a result of this mobile lifestyle, there is little settlement evidence in the archaeological record from this period. Often the only trace of these groups are lithic scatters and shell middens.

A scatter of flint artefacts including some later Mesolithic elements have been identified at a golf course (WI025-039) c. 2.5km to the northeast; a ploughed field (WI031-045) c. 3km to the southwest and in a rock shelter at St. Bride's Head (WI025-037-038), c. 3.5km to the east of the proposed development area. When the cave was discovered in 1932, the floor was found to be littered with broken flints and flint pebbles. These flint fragments were the remains of tools used by hunter-gatherers who lived along the eastern coast between 5500 and 3500 BC (Stout 1994).

Neolithic Period (4000–2500 BC)

During the Neolithic period communities became less mobile and their economy became based on the rearing of stock and cereal cultivation. This transition was accompanied by major social change. Agriculture demanded an altering of the physical landscape. Forests were rapidly cleared and field boundaries constructed. There was a greater concern for territory, which saw the construction of large communal ritual monuments called megalithic tombs, which are characteristic of the period. There are four types of Neolithic tomb known in Ireland; Court, Portal, Passage and Wedge. The main focus of Neolithic tomb building in Wicklow is located in the north of the county, close to the Dublin border. Twenty passage tombs are located within this area alone, most of which are situated above the 240m contour (Stout 1994: 8). There is very little evidence for Neolithic activity within the

surrounding environs; however a burnt spread with two pits (WI031-106) were excavated c. 3km to the southwest and dated to the late Neolithic period.

Bronze Age (2500–800 BC)

The Bronze Age was marked by the production and use of metals in Ireland for the first time. As with the earlier Mesolithic–Neolithic transition, the Neolithic–Bronze Age transition was accompanied by significant change in material culture and society. The construction of megalithic tombs ceased after the wedge tombs of the early Bronze Age with a focus on individual burials emerging. Bronze Age burials occurred in subterranean cist or pit burials that were either in isolation or in small cemeteries. These burials contained inhumed or cremated remains and were often accompanied by a pottery vessel. An early Bronze Age burial cist (WI025-014) was discovered in the townland of Ballynerrin in 1952, c. 785m to the north-northeast of the proposed development area.

The most common indicator of Bronze Age activity is the burnt mound or *fulacht fiadh*. These sites consist of a horseshoe-shaped mound of heat-affected stone and charcoal in close proximity to a trough. Often the trough is wood or wicker-lined. The function of these sites was to heat water, possibly for a variety of purposes, such as cooking, dyeing, brewing, tanning or bathing. A collection of Bronze Age features including several *fulachta fiadh*, kilns, pits and sherds of pottery were excavated during the N11 road scheme, c. 2.2km to the northwest of the proposed development area (WI025-040, WI025-057, WI025-060-64001, WI025-073-78).

Iron Age (800 BC–AD 500)

Compared to the rest of Irish prehistory, there is very little evidence in Ireland, as a whole, representing the Iron Age. As in Europe, there are two phases of the Iron Age in Ireland; the Hallstatt and the La Tène. The Hallstatt period generally dates from 700BC onwards and spread rapidly from Austria, across Europe, and then into Ireland. It saw the rise and fall of elite hierarchical dynasties that derived their wealth from control of trade with the Mediterranean. It is only represented in Ireland by a small number of bronze swords and other items of Hallstatt type (Raftery 1994, 107). The later Iron Age, or La Tène, also originated in Europe during the middle of the 5th Century BC, so called after the site of a significant votive deposit on Lake Neuchâtel in Switzerland. For several centuries the La Tène Celts were the dominant people in Europe, until they were finally overcome by the might of the Roman Empire. La Tène art is defined by its curvilinear design, which has flowing abstract compositions. Two Iron Age houses (WI031-101 and WI031-080) were identified in the townland of Coolbeg, c. 3.3km to the southwest of the proposed development area.

3.1.2 Early Medieval Period (AD 500–1100)

The early medieval period is depicted in the surviving sources as entirely rural characterised by the basic territorial unit known as *túath*. Byrne (1973) estimates that there were probably at least 150 kings in Ireland at any given time during this period, each ruling over his own *túath*. During this sometimes-violent period, roughly circular defensive enclosures known as ringforts were constructed to protect farmsteads. Although most of the ringforts that have been excavated are shown to date to this

period, some have earlier origins and may have been originally constructed during the Iron Age, or possibly even earlier.

The ringfort, or rath, is considered to be the most common indicator of settlement during this time. The most recent study of the ringfort (Stout 1997) has suggested that there are over 45,000 potential ringforts or enclosure sites throughout Ireland. They are typically enclosed by an earthen bank and exterior ditch, and range from 25m to 50m in diameter. The smaller sized and single banked type (univallate) were more likely to be home to the lower ranks of society while larger examples with more than one bank (bivallate/trivallate) housed the more powerful kings and lords. Unusually, there is only one ringfort (WI031-043) recorded in the vicinity of the proposed development area, c. 2.3km to the southwest, even though the locality was likely to have been viewed as a desirable landscape for habitation. The proximity of the coast and shelter afforded by the surrounding hills would have made living conditions relatively easy.

The earliest evidence for Viking activity in Wicklow is found in an annalistic entry for 827 AD, which reports the destruction of a Leinstermen camp by 'heathens'. Prior to the arrival of the Vikings, the native Irish tribes of *Uí Enechglais* and *Uí Garrchon* occupied much of the land between Wicklow and Arklow. The name Wicklow is derived from *Vikingalo* meaning 'Meadow of the Vikings' or *Vik-lo* meaning 'meadow of the bay'. In 1888 the fragments of a highly decorated 9th century Scandinavian sword were discovered in the Murragh (NMI Ref.: 1909:31), to the north of Wicklow Town, c. 2km to the northwest of the proposed development area. The highly decorated nature of the sword suggests that this may have been a burial deposit, although human remains are unlikely to survive for any period of time within the shingle spit where the find was made.

This period is also characterised by the introduction of Christianity to Ireland. The new religion was a catalyst for many changes, one of the most important being literacy. Irish was written down for the first time using the ogham script. The ogham alphabet is thought to be based on the Latin alphabet of the later Roman Empire and today the majority of the inscriptions that survive are located on pillar stones or boulders. As well as this form of the written word, the church created impressive tomes in their official language, Latin. Examples of these include the Book of Kells and the Book of Durrow as well as other mundane works such as the Annals, which were an account of the history of the church. Monasticism was known in St Patrick's time (mid-5th century) but it was not until the 6th and 7th centuries that the famous monastic houses such as Glendalough, Bangor, Clonfert, Clonard, Clonmacnoise and Durrow were founded (Ryan 1994, 125).

The closest recorded ecclesiastical site (WI025-011001) to the proposed development area is located c. 2.1km to the north. This is the traditional location of the Church of Drumkay, an early ecclesiastical site for which there is little information regarding its age and foundation. A possible 12th century Romanesque doorway (WI025-012005) and font (WI025-012006) were removed to Wicklow Town from the Church of Drumkay in the past and local tradition asserts that the church site was removed to its

present Church of Ireland site in Wicklow Town during the medieval period. In 2006 a significant excavation was carried out that identified the remains of the church building, along with 191 burials (Bennett 2009:578, Licence Ref.: 06E0091).

3.1.3 Medieval Period (AD 1100–1600)

The beginning of the medieval period is characterised by political unrest that originated from the death of Brian Borumha in 1014. Diarmait MacMurchadha, deposed King of Leinster, sought the support of mercenaries from England, Wales and Flanders to assist him in his challenge for kingship. Norman involvement in Ireland began in 1169, when Richard de Clare and his followers landed in Wexford to support MacMurchadha. Two years later de Clare (Strongbow) inherited the Kingdom of Leinster and by the end of the 12th century the Normans had succeeded in conquering much of the country (Stout & Stout 1997, 53).

The initial stage of the invasion of the country is marked by the construction of Motte and Bailey castles, such as the site recorded in Wicklow Town (WI025-012001), c. 1.9km to the north-northwest of the proposed development area. However, according to Giraldus Cambrensis, the castle of Wicklow (WI025-013) was granted to Strongbow by Henry II in 1173. The context in which the reference appears suggests that the castle may have had a pre-Norman origin and it is unclear whether there was any settlement associated with the castle. Strongbow then granted the Cantred of Wicklow to Maurice Fitz Gerald in 1176, with burgages in the town confirmed to St. Mary's Abbey, Dublin prior to 1199. Due to the town's position on the estuary of the Vartry River, it was often subject to attack by the native Irish and was captured and burned by the Irish in 1301. In 1576 earthwork ramparts were constructed around the town (Kerrigan 1995, 38). However, it continued to remain as an isolated outpost of the Pale until the 16th century.

3.1.4 Post-Medieval Period (AD 1600–1900)

With the ending of the Williamite Wars, County Wicklow, like the rest of Ireland, entered an era of comparative political calm. Interest in Ireland was revived and it was during this period that Wicklow Town became an important port and garrison. Consequently, the county's landowners, now secure in their positions, commenced the building of new mansions. They were now in a position to experiment with the latest styles of architecture without the need to refer to defensive matters. At the outset many landowners were constrained by a lack of resources and therefore the first-generation mansions were of relatively modest scale and relatively plain in appearance. However, as the sense of security of the Irish aristocracy grew over the following decades their greater access to wealth helped foster a shift towards more ostentatious buildings.

Palladianism was to dominate architecture in both Ireland and Britain in the half century after 1714. County Wicklow possesses two of the finest examples of large Palladian mansions to be seen anywhere in both countries, Powerscourt House (1731-40) and Russborough House (1741-48), both the work of the German-born architect, Richard Castle (1690-1751). Although few landowners could aspire to the exuberant grandeur of a Powerscourt or a Russborough, many of the succeeding generations of

landowners were affluent enough to make important architectural statements. The boom in country house building, which characterised much of the first half of the 19th century, and indeed, the century before that, tailed off almost completely by the 20th century.

The remains of a small demesne that accompanied Marlton House is located c. 475m to the north of the proposed development area. Marlton House is still present today and although an equestrian centre has been established at the site, much of the demesne that is immediately adjacent to the house survives in good condition.

3.2 SUMMARY OF PREVIOUS ARCHAEOLOGICAL FIELDWORK

A review of the Excavations Bulletin (1970–2017) has shown that no previous archaeological investigations have been carried out within the proposed development area. A large-scale programme of archaeological testing was carried out to the immediate northeast of the site as part of the construction of the Wicklow Port Access Road. This was undertaken in 2006 under licence 06E0091 (Bennett 2006:2194). A total of 39 sites of archaeological potential were identified along the route of the proposed road, which measured c. 3.5km in length.

As part of the above works, a *fulacht fiadh* and U-shaped hut site were excavated in Ballynerrin Lower (Licence 06E0091; Bennett 2006:2194). A flint scraper and a quartz hammerstone were discovered at the Bronze Age site. The bulletin does not specify the location of the archaeological site, although it is likely that it was situated in close proximity to a stream, c. 340m to the north-northeast of the proposed development area.

3.3 CARTOGRAPHIC ANALYSIS

William Petty, Down Survey Map, Barony of Newcastle, Parish of Wicklow and Kilpoole, c. 1655

There is no detail of the proposed development site depicted in the townland of 'Balleneran' on this early map. However, the town of Wicklow is depicted to the northeast and is shown as containing four structures and two castles.

Jacob Neville's Map of County Wicklow, 1760

The town of Wicklow is depicted in greater detail than on Petty's map, with a road network surrounding it. One of the castles is now annotated as the Black Castle. The proposed development is located in an undeveloped location to the immediate west of the conflux of five roads. A house is depicted on the opposite side of the road junction, to the east of the proposed development area.

First Edition Ordnance Survey Map, 1840, scale 1:10,560 (Figure 3)

This is the first accurate historic mapping coverage of the area containing the proposed area. It is shown as being located within a sub-triangular field to the immediate west of a Y-junction. A circular pond is marked in the eastern most point of the site. Structures that are likely to represent vernacular cottages and associated

outbuildings, as shown to the immediate north and west of the site. Three small structures front onto the eastern side of the road that forms part of the eastern boundary to the proposed development area. A track way is shown as bordering the western side of the proposed development area. Both the track and the road are also marked as townland boundaries.

Within the wider area, a circular enclosure, annotated as 'Site of Fort' is marked c. 720m east-southeast of the proposed development area. Whilst there is no obvious sign of this site within the landscape today, it is unusual that the site has not been added to the Record of Monuments and Places.

Ordnance Survey Map, 1908, scale 1:2,500 (Figure 4)

By the time of this edition, there are no major changes to note within the cartography that relate to the proposed development area. The circular pond remains present in the eastern part of the site and the road infrastructure remains unchanged. Some of the vernacular structures within the surrounding landscape have been removed.

3.4 COUNTY DEVELOPMENT PLAN

The Wicklow County Development Plan (2016–2022) recognises the statutory protection afforded to recorded monuments as does the Wicklow Town – Rathnew Development Plan (2013-2019) (Appendix 3).

The plan states that when Wicklow County Council deals with proposals for development that would impact upon archaeological sites and/or features, there will be presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy.

There are no recorded monuments located within 500m of the proposed development area. The closest consists of a cist (WI025-014) c. 785m to the north-northeast within the townland of Ballynerrin.

3.5 AERIAL PHOTOGRAPHIC ANALYSIS

Inspection of the aerial photographic coverage of the proposed development area held by the Ordnance Survey (1995, 2000, 2005), Google Earth (2010-17) and Bing Maps, failed to identify any previously unrecorded sites or areas of archaeological potential. The detached residences that border the proposed development area to the north were constructed prior to 1995.

4 RESULTS OF FIELD INSPECTION

4.1 FIELD INSPECTION

The field inspection sought to assess the site, its previous and current land use, the topography and any additional information relevant to the report. During the course of the field investigation the proposed development site and its immediate surrounding environs were inspected.

The proposed development area is located within a field that was formerly in arable production, to the immediate south of five houses that front onto Ashtown Lane. A section of the partially realigned R751 forms the eastern boundary to the site (Plate 1) and an access track, which is marked within the first edition OS map of 1840, forms the western boundary.

The site slopes sharply from west to east with the highest sections being located along the western boundary. From here there are excellent views of Wicklow Town and the coastal margins to the east of the proposed development area (Plates 2 and 3). The highest point occupies an approximately OD level of 101m whilst the eastern area levels out at an approximate OD level of 81m.

The southern field boundary consists of mature vegetation and a ditch (Plate 4), whilst the townland boundary that runs along the west side of the site consists of an earthen bank, vegetation and the occasional tree. The southeast corner of the proposed development area contains a slightly raised area of scrub, which was also present within the eastern limit of the field (Plate 5). No evidence for the former pond, which was marked within the historic mapping, was noted during the inspection.

Ashtown Lane is lined with mature trees (Plate 6). The roadway has been truncated by the realigned R751 and is now a cul-de-sac.

4.2 CONCLUSIONS

The proposed development area is currently formed by a field within the townland of Ballynerrin Upper in County Wicklow. There are no recorded monuments within the site and very few have been noted in the surrounding environs. The nearest consists of a cist (WI025-014), c. 785m to the north-northeast in the townland of Ballynerrin.

A review of the Excavations Bulletin (1970-2017) has shown that no previous archaeological fieldwork has been carried out within the site. However, during 2006 archaeological testing was carried out prior to the construction of the Wicklow Port Access Road (R751). A short, realigned section of this road forms the eastern boundary to the site. During the course of this work a Bronze Age *fulacht fiadh* was identified and excavated to the north of the proposed development area within the townland of Ballynerrin Lower.

A review of the cartographic sources revealed that a pond was formerly located within the eastern part of the proposed development area, although no other features were marked in or within the immediate vicinity. Analysis of the aerial photography for the site did not reveal any potential archaeological features within the proposed development area or surrounding environs.

A field inspection has been carried out as part of this assessment. The inspection revealed that the proposed development area contains a significant west-east slope, where the terrain drops by approximately 20m. Whilst the site occupies an elevated position overlooking Wicklow Town and the coast, the presence of the slope is likely to have discouraged settlement during either the prehistoric or historic periods. It remains possible that the western margins of the site, which are the most elevated, possess some archaeological potential, along with the more level eastern area (adjacent to the R751). Despite this, the overall archaeological potential is deemed to be low.

5 IMPACT ASSESSMENT AND MITIGATION STRATEGY

Impacts can be identified from detailed information about a project, the nature of the area affected and the range of archaeological resources potentially affected. Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping; disturbance by vehicles working in unsuitable conditions; and burial of sites, limiting access for future archaeological investigation. Upstanding archaeology can be affected adversely by direct damage or destruction arising from development, from inadvertent damage arising from vibration, undermining etc. and also by indirect impacts to a building's visual setting, view or curtilage.

5.1 IMPACT ASSESSMENT

- Whilst no specific features or sites of definitive archaeological potential have been identified within the proposed development area, it is possible that previously unrecorded features/ deposit survive beneath the current ground level within the western and eastern margins of the site. Ground disturbances associated with future development have the potential to adversely impact on any such remains that may be present.

5.2 MITIGATION

- It is recommended that the western and eastern margins of the proposed development area be subject to archaeological testing prior to construction going ahead. This should be carried out by an archaeologist under licence from the DoCHG.

If any features of archaeological potential are discovered during the course of the works, further archaeological mitigation may be required, such as preservation *in-situ* or by record, along with archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the DoCHG.

It is the developer's responsibility to ensure full provision is made available for the resolution of any archaeological remains, both on site and during the post excavation process, should that be deemed the appropriate manner in which to proceed.

Please note that all recommendations are subject to approval by the National Monuments Service of the Heritage and Planning Division, Department of Culture, Heritage and the Gaeltacht.

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CARTOGRAPHIC SOURCES

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Ordnance Survey maps of County Wicklow, 1840 and 1908.

ELECTRONIC SOURCES

www.excavations.ie – Summary of archaeological excavation from 1970–2017.

www.archaeology.ie – DoCHG website listing all SMR sites.

www.osiemaps.ie – Ordnance Survey aerial photographs dating to 1995, 2000 & 2005 and 6-inch/25-inch OS maps.

www.heritagemaps.ie – The Heritage Council web-based spatial data viewer which focuses on the built, cultural and natural heritage.

www.googleearth.com – Satellite imagery of the proposed development area.

www.bingmaps.com – Satellite imagery of the proposed development area.

APPENDICES

APPENDIX 1 SMR/RMP SITES WITHIN THE SURROUNDING AREA

SMR NO.	W1025-014
RMP STATUS	Yes
TOWNLAND	Ballynerrin
PARISH	Rathnew
BARONY	Newcastle
I.T.M.	730474/693521
CLASSIFICATION	Cist
DIST. FROM DEVELOPMENT	c. 785 m north-northeast
DESCRIPTION	Situated on a gentle S-facing slope on low flat-topped hillock. Rectangular cist (dims. 0.55m x 0.4m; D 0.4m) aligned E-W with a single capstone, containing the cremation of an adult. Not visible at ground level. (Hartnett 1952, 161-2; Waddell 1990, 159) In 2008, a geophysical survey (08R127) of part of the site revealed a 'concentration of curvilinear ditch type responses' and 'responses indicative of intensive burning / firing activity'.
REFERENCE	www.archaeology.ie/ SMR file

APPENDIX 2 STRAY FINDS WITHIN THE SURROUNDING AREA

Information on artefact finds from the study area in County Wicklow has been recorded by the National Museum of Ireland since the late 18th century. Location information relating to these finds is important in establishing prehistoric and historic activity in the study area.

Museum No:	P1952:3
Townland:	Ballynerrin
Parish:	Rathnew
Barony:	Newcastle
Find:	Cist/cremated bones
Find Place:	SMR WI025-014
Description:	See description above in Appendix 1
Reference:	NMI File

APPENDIX 3 LEGISLATION PROTECTING THE ARCHAEOLOGICAL RESOURCE

PROTECTION OF CULTURAL HERITAGE

The cultural heritage in Ireland is safeguarded through national and international policy designed to secure the protection of the cultural heritage resource to the fullest possible extent (Department of Arts, Heritage, Gaeltacht and the Islands 1999, 35). This is undertaken in accordance with the provisions of the *European Convention on the Protection of the Archaeological Heritage* (Valletta Convention), ratified by Ireland in 1997.

THE ARCHAEOLOGICAL RESOURCE

The *National Monuments Act 1930 to 2014* and relevant provisions of the *National Cultural Institutions Act 1997* are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. A National Monument is described as ‘a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto’ (National Monuments Act 1930 Section 2). A number of mechanisms under the National Monuments Act are applied to secure the protection of archaeological monuments. These include the Register of Historic Monuments, the Record of Monuments and Places, and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

OWNERSHIP AND GUARDIANSHIP OF NATIONAL MONUMENTS

The Minister may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with without the written consent of the Minister.

REGISTER OF HISTORIC MONUMENTS

Section 5 of the 1987 Act requires the Minister to establish and maintain a Register of Historic Monuments. Historic monuments and archaeological areas present on the register are afforded statutory protection under the 1987 Act. Any interference with sites recorded on the register is illegal without the permission of the Minister. Two months’ notice in writing is required prior to any work being undertaken on or in the vicinity of a registered monument. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the Record of Monuments and Places.

PRESERVATION ORDERS AND TEMPORARY PRESERVATION ORDERS

Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site

illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

RECORD OF MONUMENTS AND PLACES

Section 12(1) of the 1994 Act requires the Minister for Arts, Heritage, Gaeltacht and the Islands (now the Minister for the Department of Culture, Heritage and the Gaeltacht) to establish and maintain a record of monuments and places where the Minister believes that such monuments exist. The record comprises a list of monuments and relevant places and a map/s showing each monument and relevant place in respect of each county in the state. All sites recorded on the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994. All recorded monuments on the proposed development site are represented on the accompanying maps.

Section 12(3) of the 1994 Act provides that ‘where the owner or occupier (other than the Minister for Arts, Heritage, Gaeltacht and the Islands) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister of Arts, Heritage, Gaeltacht and the Islands to carry out work and shall not, except in case of urgent necessity and with the consent of the Minister, commence the work until two months after giving of notice’.

Under the National Monuments (Amendment) Act 2004, anyone who demolishes or in any way interferes with a recorded site is liable to a fine not exceeding €3,000 or imprisonment for up to 6 months. On summary conviction and on conviction of indictment, a fine not exceeding €10,000 or imprisonment for up to 5 years is the penalty. In addition, they are liable for costs for the repair of the damage caused.

In addition to this, under the *European Communities (Environmental Impact Assessment) Regulations 1989*, Environmental Impact Statements (EIS) are required for various classes and sizes of development project to assess the impact the proposed development will have on the existing environment, which includes the cultural, archaeological and built heritage resources. These document’s recommendations are typically incorporated into the conditions under which the proposed development must proceed, and thus offer an additional layer of protection for monuments which have not been listed on the RMP.

THE PLANNING AND DEVELOPMENT ACT 2000

Under planning legislation, each local authority is obliged to draw up a Development Plan setting out their aims and policies with regard to the growth of the area over a five-year period. They cover a range of issues including archaeology and built heritage, setting out their policies and objectives with regard to the protection and enhancement of both. These policies can vary from county to county. The Planning and Development Act 2000 recognises that proper planning and sustainable

development includes the protection of the archaeological heritage. Conditions relating to archaeology may be attached to individual planning permissions.

Wicklow County Development Plan 2016-2022

Archaeology Objectives

BH1 no development in the vicinity of a feature included in the Record of Monuments & Places (RMP) will be permitted which seriously detracts from the setting of the feature or which is seriously injurious to its cultural or educational value.

BH2 any development that may, due to its size, location or nature, have implications for archaeological heritage (including both sites and areas of archaeological potential/significance as identified in Schedule 10.01 & 10.02 and Maps 10.01 & 10.02 of this plan) shall be subject to an archaeological assessment. When dealing with proposals for development that would impact upon archaeological sites and/or features, there will be presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy. Where permission for such proposals is granted, the Planning Authority will require the developer to have the site works supervised by a competent archaeologist.

BH3 to protect previously unknown archaeological sites and features, including underwater sites, where they are discovered during development works.

BH4 to facilitate public access to National Monuments in State or Local Authority care, as identified in Schedule 10.02 of this plan.

BH5 to protect the Hillforts in west Wicklow and to engage with the relevant central Government department to seek to undertake a detailed study of their importance.

BH6 to facilitate the designation of the Glendalough Monastic Settlement as a UNESCO World Heritage Site.

Wicklow Town – Rathnew Development Plan 2013-2019

It is the strategic objective of the plan to:

- safeguard local natural and built heritage assets; and to balance the protection of the built and natural resources against the need to allow the town to develop and grow based upon the value and sensitivity of these resources.
- To enhance the quality of the natural and built environment, to enhance the unique character of the settlement as a place to live, visit and work.
- To promote greater appreciation of, and access to, local heritage assets.
- To ensure compliance of the plan with relevant National and EU heritage protection legislation.

APPENDIX 4 IMPACT ASSESSMENT AND THE CULTURAL HERITAGE RESOURCE

POTENTIAL IMPACTS ON ARCHAEOLOGICAL AND HISTORICAL REMAINS

Impacts are defined as ‘the degree of change in an environment resulting from a development’ (Environmental Protection Agency 2003: 31). They are described as profound, significant or slight impacts on archaeological remains. They may be negative, positive or neutral, direct, indirect or cumulative, temporary or permanent.

Impacts can be identified from detailed information about a project, the nature of the area affected and the range of archaeological and historical resources potentially affected. Development can affect the archaeological and historical resource of a given landscape in a number of ways.

- Permanent and temporary land-take, associated structures, landscape mounding, and their construction may result in damage to or loss of archaeological remains and deposits, or physical loss to the setting of historic monuments and to the physical coherence of the landscape.
- Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping and the passage of heavy machinery; disturbance by vehicles working in unsuitable conditions; or burial of sites, limiting accessibility for future archaeological investigation.
- Hydrological changes in groundwater or surface water levels can result from construction activities such as de-watering and spoil disposal, or longer-term changes in drainage patterns. These may desiccate archaeological remains and associated deposits.
- Visual impacts on the historic landscape sometimes arise from construction traffic and facilities, built earthworks and structures, landscape mounding and planting, noise, fences and associated works. These features can impinge directly on historic monuments and historic landscape elements as well as their visual amenity value.
- Landscape measures such as tree planting can damage sub-surface archaeological features, due to topsoil stripping and through the root action of trees and shrubs as they grow.
- Ground consolidation by construction activities or the weight of permanent embankments can cause damage to buried archaeological remains, especially in colluviums or peat deposits.
- Disruption due to construction also offers in general the potential for adversely affecting archaeological remains. This can include machinery, site offices, and service trenches.

Although not widely appreciated, positive impacts can accrue from developments. These can include positive resource management policies, improved maintenance and access to archaeological monuments, and the increased level of knowledge of a site or historic landscape as a result of archaeological assessment and fieldwork.

PREDICTED IMPACTS

The severity of a given level of land-take or visual intrusion varies with the type of monument, site or landscape features and its existing environment. Severity of impact can be judged taking the following into account:

- The proportion of the feature affected and how far physical characteristics fundamental to the understanding of the feature would be lost;
- Consideration of the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value of the feature affected;
- Assessment of the levels of noise, visual and hydrological impacts, either in general or site-specific terms, as may be provided by other specialists.

APPENDIX 5 MITIGATION MEASURES AND THE CULTURAL HERITAGE RESOURCE

POTENTIAL MITIGATION STRATEGIES FOR CULTURAL HERITAGE REMAINS

Mitigation is defined as features of the design or other measures of the proposed development that can be adopted to avoid, prevent, reduce or offset negative effects.

The best opportunities for avoiding damage to archaeological remains or intrusion on their setting and amenity arise when the site options for the development are being considered. Damage to the archaeological resource immediately adjacent to developments may be prevented by the selection of appropriate construction methods. Reducing adverse effects can be achieved by good design, for example by screening historic buildings or upstanding archaeological monuments or by burying archaeological sites undisturbed rather than destroying them. Offsetting adverse effects is probably best illustrated by the full investigation and recording of archaeological sites that cannot be preserved *in situ*.

DEFINITION OF MITIGATION STRATEGIES

ARCHAEOLOGICAL RESOURCE

The ideal mitigation for all archaeological sites is preservation *in situ*. This is not always a practical solution, however. Therefore, a series of recommendations are offered to provide ameliorative measures where avoidance and preservation *in situ* are not possible.

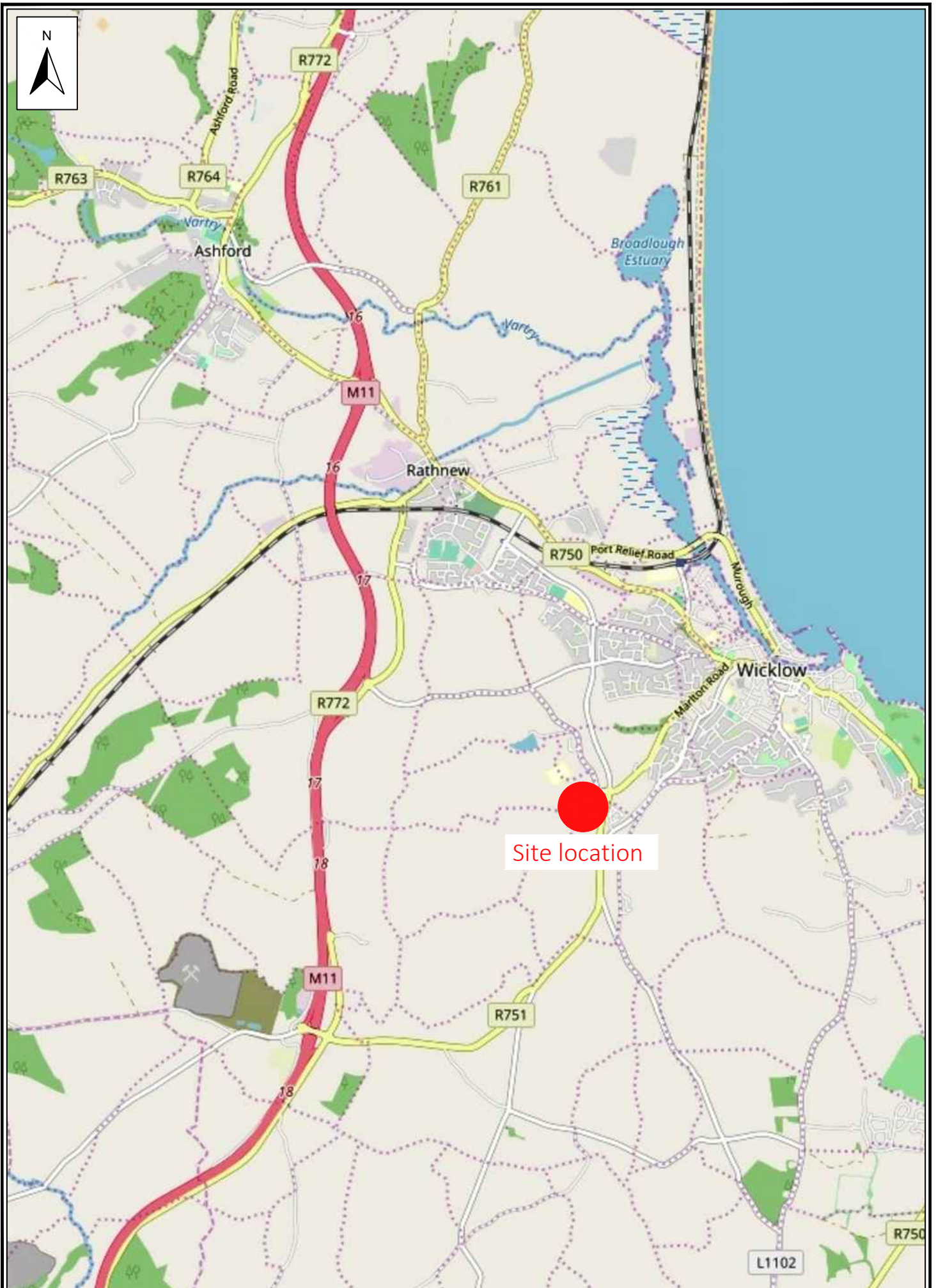
Archaeological Test Trenching can be defined as ‘a limited programme of intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate’ (ClfA 2014a).

Full Archaeological Excavation can be defined as ‘a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design’ (ClfA 2014b).

Archaeological Monitoring can be defined as ‘a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be

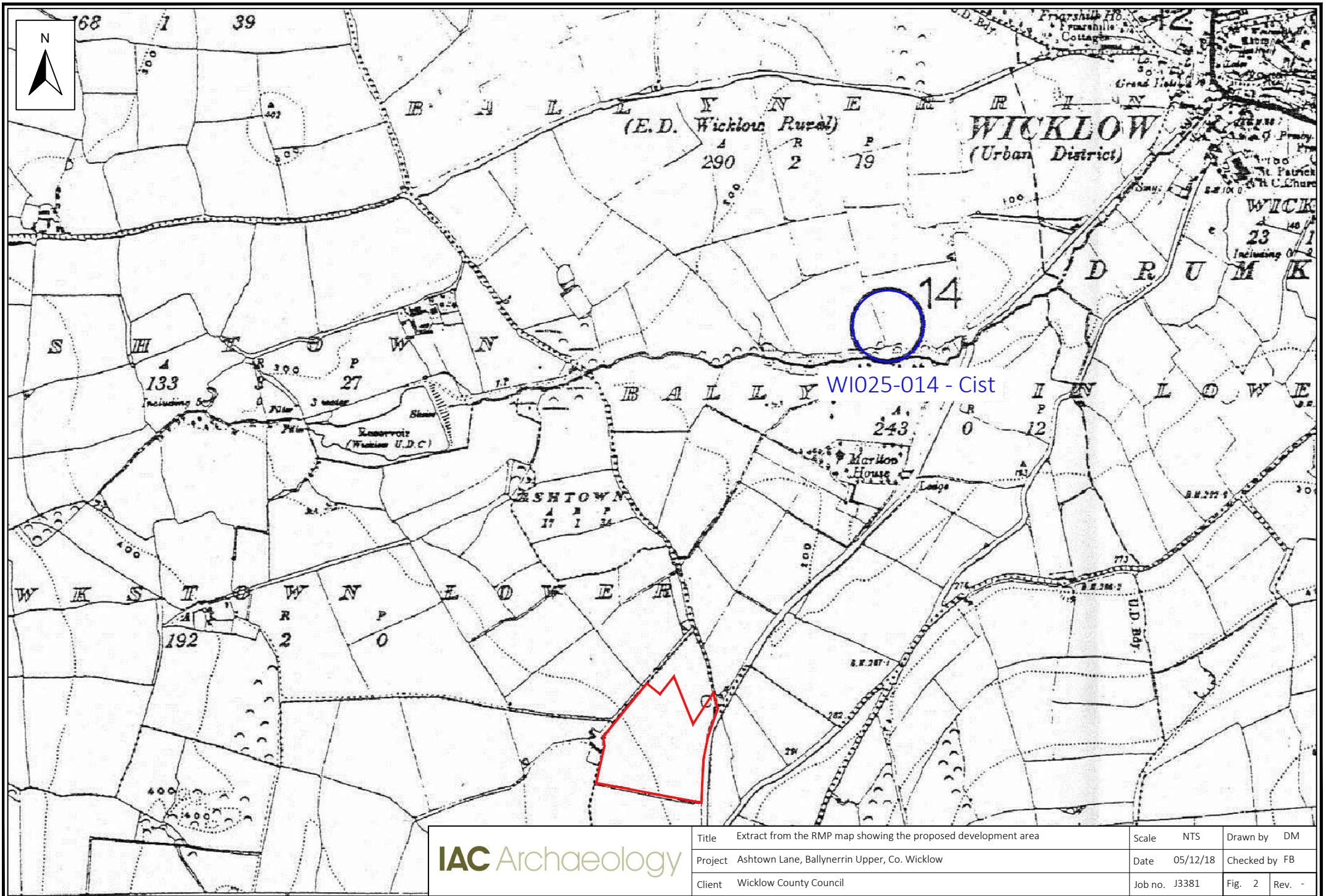
disturbed or destroyed. The programme will result in the preparation of a report and ordered archive (CifA 2014c).

Underwater Archaeological Assessment consists of a programme of works carried out by a specialist underwater archaeologist, which can involve wade surveys, metal detection surveys and the excavation of test pits within the sea or riverbed. These assessments are able to access and assess the potential of an underwater environment to a much higher degree than terrestrial based assessments.

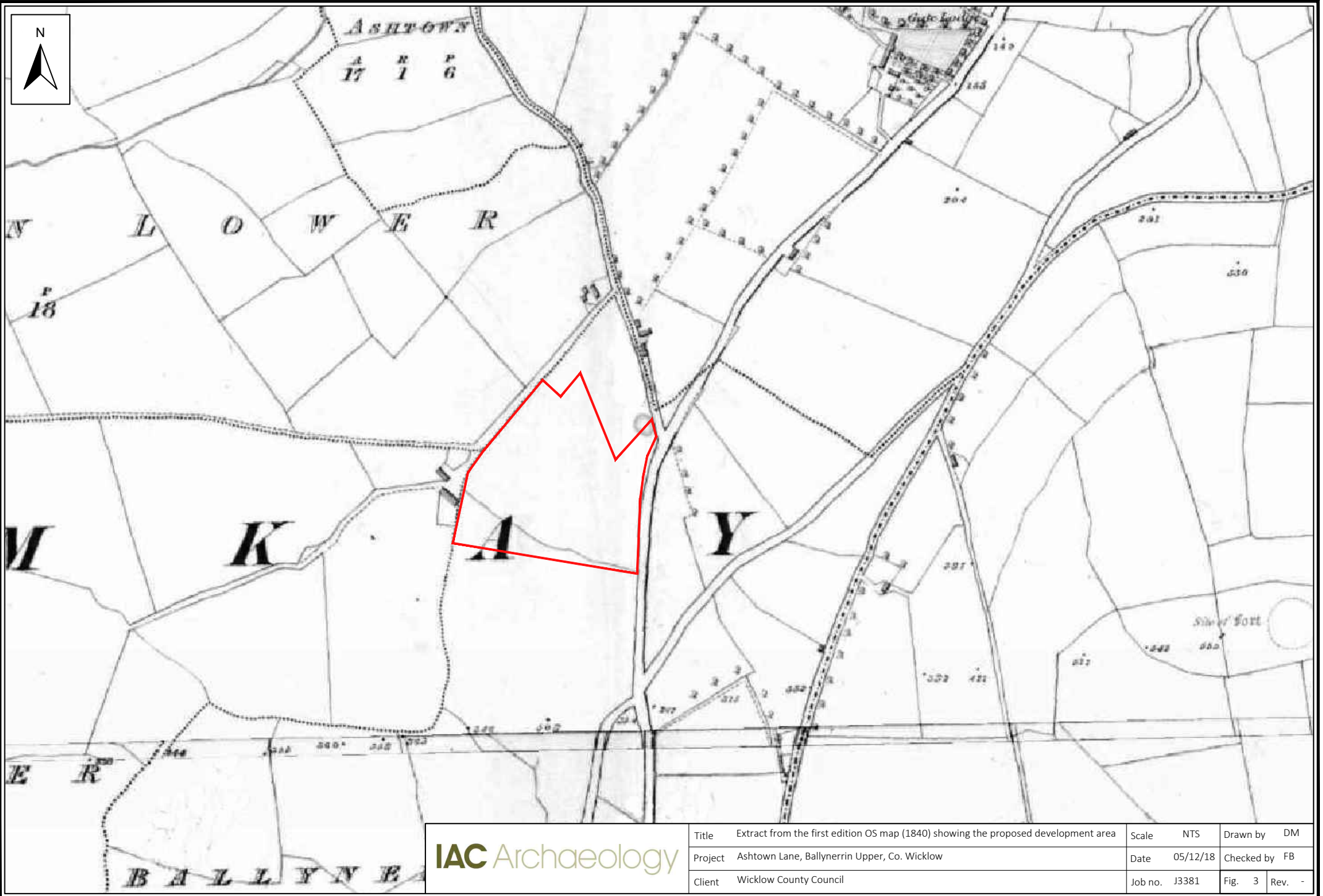


Site location

Title	Site location	Scale	NTS	Drawn by	DM
Project	Ashtown Lane, Ballynerrin Upper, Co. Wicklow	Date	05/12/18	Checked by	FB
Client	Wicklow County Council	Job no.	J3381	Fig.	1
				Rev.	-



	Title	Extract from the RMP map showing the proposed development area	Scale	NTS	Drawn by	DM	
	Project	Ashtown Lane, Ballynerrin Upper, Co. Wicklow	Date	05/12/18	Checked by	FB	
	Client	Wicklow County Council	Job no.	J3381	Fig.	2	Rev.



IAC Archaeology

Title	Extract from the first edition OS map (1840) showing the proposed development area	Scale	NTS	Drawn by	DM
Project	Ashtown Lane, Ballynerrin Upper, Co. Wicklow	Date	05/12/18	Checked by	FB
Client	Wicklow County Council	Job no.	J3381	Fig.	3
				Rev.	-



Plate 1 R751, facing north



Plate 2 View from southwest corner, facing north



Plate 3 View from southwest corner, facing east



Plate 4 Southern field boundary, facing west



Plate 5 View from scrub area in southeast corner, facing north



Plate 6 Townland boundary along Ashtown Lane, facing north-northeast