

7 CULTURAL HERITAGE

7.1 INTRODUCTION

This section of the report provides an assessment of the proposed Laois – Kilkenny Reinforcement Project. The project includes a number of components which are broken down into units for ease of description (Units 1 - 8). A description of each unit is presented in Section 2 of this EIS.

The purpose of this assessment is to identify any potential impacts on the Cultural Heritage landscape. It contains a description of those aspects of the environment that are likely to be potentially affected by the proposed development. This section of the Environmental Impact Statement describes the existing environment directly relating to archaeological sites, architectural heritage sites and newly recorded built aspects of cultural heritage in the vicinity of the proposed development. Non-material aspects of cultural heritage such as folklore, language and religion are not addressed in this section. These items do not represent environmental constraints on which the proposed development will have a potential impact. The assessment amalgamates desk-based research and the results of field walking to identify areas of archaeological, architectural or cultural heritage significance or potential likely to be impacted by the proposed line route. A number of mitigating measures are also recommended in order to minimise any such impact.

An assessment of the cultural heritage features present in the Project Study Area was carried out in order to highlight any areas of potential archaeological sensitivity and to identify all recorded cultural heritage sites that may influence the route or site selection process. These reports can be found as Appendix D-2 and I-2 of the Lead Consultant's Stage 1 Report and were considered when identifying potential substation sites and circuit routes.

All assessments of the archaeology and cultural heritage along the preferred line route were carried out with regard to the Code of Practice between Eirgrid and the former Department of the Environment, Heritage and Local Government (DoEHLG) (2009).

This section of the EIS was prepared by Miriam Carroll and Annette Quinn, the directors of Tobar Archaeological Services, both of whom graduated from University College Cork in 1998 with a Master's degree in Methods and Techniques in Irish Archaeology. Both directors are licensed by the Department of the Environment, Heritage and Local Government to carry out excavations and are members of the Institute of Archaeologists of Ireland. Annette Quinn and Miriam Carroll have been working in the field of archaeology since 1994 and have undertaken numerous projects for both the private and public sectors including excavations, site assessments (EIS) and surveys.

7.2 METHODOLOGY

7.2.1 CONSTRAINTS REPORT

A Constraints Report on Cultural Heritage features within the overall Project Study Area was completed in October 2010 (see Appendix D-2 of the Lead Consultant's Stage 1 Report). The project study area lies mainly within the counties of Laois and Kilkenny and is bounded to the north by Portlaoise, the east by Athy, to the west by Mountrath and to the south by Freshford. All constraints were presented in the report and general recommendations were made regarding the avoidance of such features especially clusters of monuments or where National Monuments occurred.

7.2.2 SITE AND ROUTE IDENTIFICATION PROCESS

A desk-based route selection report (Phase 2 Lead Consultants Report March 2012 – Appendix I1, submitted with the application for planning approval) was subsequently undertaken for three potential route corridors between Coolnabacky, Co. Laois and Ballyragget, Co. Kilkenny to highlight areas of potential archaeological sensitivity and to identify all recorded cultural heritage sites that may influence the selection of the potential routes for the proposed electricity transmission line. The routes included an

eastern route corridor, a central route corridor, a western route corridor and a corridor to facilitate the 400kV line from the selected substation to the existing 400kV line (Dunstown-Moneypoint). The aim of the route selection report was to assess each of the route corridors for their archaeological potential and map each route showing the identifiable cultural heritage sites that might impact on choosing one route over another for the proposed electricity transmission line. The route identification was undertaken in the following stages:

- Identify study area
- Identify constraints
- Identify substation site
- Identify corridors
- Evaluate corridors and identify preferred route corridor.

7.2.3 PREFERRED ROUTE ASSESSMENT REPORT (ENVIRONMENTAL REPORT)

The desktop assessment of the preferred route was carried out using the same cartographic and documentary sources as the previous reports (see below). While all recorded cultural heritage constraints within the overall study area (within which the preferred route is located) had been previously identified, a thorough examination of 1st and 2nd edition Ordnance Survey (OS) mapping along the preferred route was carried out in order to identify any cultural heritage items which might be impacted upon by the proposed line.

For the purposes of this section of the EIS, Archaeology, Architecture and Cultural Heritage are considered to include the following elements:

- Sites listed in the Sites & Monuments Record (SMR)
- Record of Monuments & Places (RMP)
- Register of Historic Monuments (RHM)
- National Monuments in the ownership or guardianship of the State or in Local Authority ownership
- Sites listed in the Archaeological Inventory of County Laois
- Archaeological sites listed on the National Monuments Service website www.archaeology.ie
- Sites listed in the Record of Protected Structures (RPS)
- National Inventory of Architectural Heritage, Buildings of Ireland www.buildingsofireland.ie
- Sites reported in Excavations Bulletins
- Any previously unrecorded sites detected during field inspection

7.2.4 DOCUMENTARY AND ARCHIVAL SOURCES

Documentary sources were used to assess the archaeological landscape potential of the proposed line route and to compile an archaeological and historical framework for the identified cultural heritage sites. All documentary sources used for this purpose are listed in the Bibliography.

Archival sources were used to identify and map cultural heritage sites. The following archival sources were consulted:

Sites and Monuments Record (SMR) and Record of Monuments & Places (RMP) and www.archaeology.ie

A primary cartographic source and base-line data for the assessment was the consultation of the Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for Counties Laois and Kilkenny. All known recorded archaeological monuments are indicated on 6 inch Ordnance Survey (OS) maps and are listed in this record. The SMR/RMP is not a complete record of all monuments as newly discovered sites may not appear in the list or accompanying maps. In conjunction with the consultation of the SMR and RMP the electronic database of recorded monuments which may be accessed at www.archaeology.ie was also consulted.

Record of Protected Structures

The Record of Protected Structures was consulted and the heritage officers from Laois and Kilkenny County Councils were contacted to obtain up-to-date lists of Protected Structures for each county.

List of Monuments covered by Preservation Orders and List of National Monuments in the ownership / guardianship of the Minister for the Environment, Heritage and Local Government

National Monuments in the ownership / guardianship of the Minister for Arts, Heritage and the Gaeltacht are listed on the website of the Department of Arts, Heritage and the Gaeltacht website www.archaeology.ie.

Monuments in Ownership of Laois and Kilkenny County Council

Recorded monuments which are in the ownership of the County Council / Local Authorities automatically become National Monuments. One such example is churches and graveyards which are in the ownership of a County Council. Definitive lists of these monuments have not been compiled and therefore are not available for consultation. One such monument was identified in County Laois (Cremorgan Church and Graveyard) near to the preferred route and is discussed below. The majority of monuments, however, are in private ownership and therefore do not have National Monument status.

Archaeological Inventories

Further information on archaeological sites may be obtained in the published County Archaeological Inventory series prepared by the Department of Arts, Heritage and the Gaeltacht. The archaeological inventories present summarised information on sites listed in the SMR/RMP and include detail such as the size and location of particular monuments as well as any associated folklore or local information pertaining to each site. The inventories, however, do not account for all sites or items of cultural heritage interest which are as yet undiscovered. The County Kilkenny inventory has not yet been published and therefore detailed information on recorded monuments is only available for consultation in the National Monuments Service, Department of Arts, Heritage and the Gaeltacht (Dublin). The County Laois inventory was published in 1995 and therefore new sites have been added to the record since then.

County Development Plans

The Laois County Development Plan 2011-2017, Laois County Council and the Kilkenny County Development Plan 2008-2014, Kilkenny County Council were consulted for the schedule of buildings (Record of Protected Structures) and items of cultural, historical or archaeological interest which may be affected by the proposed development. The townlands within the study area were entered into the database of protected structures in the development plan to assess the proximity and potential impact of the proposed development on such structures. The development plan also outlines policies and objectives relating to the protection of the archaeological, historical and architectural heritage landscape.

National Inventory of Architectural Heritage www.buildingsofireland.ie

This source lists some of the architecturally significant buildings and items of cultural heritage and is compiled on a county by county basis by the Department of Arts, Heritage and the Gaeltacht. The NIAH has been undertaken for the relevant counties. The Historic Gardens and Designed Landscapes Survey (NIAH) has been undertaken at desktop level only for both counties. The results of this preliminary survey were consulted for any significant houses and gardens along the proposed routes.

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Arts, Heritage and the Gaeltacht and established on a statutory basis under the provisions of the [Architectural Heritage \(National Inventory\) and Historic Monuments \(Miscellaneous Provisions\) Act 1999](#). The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for Arts, Heritage and the Gaeltacht to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS). The published surveys are a source of information on the selected structures for relevant planning authorities. They are also a research and educational resource.

Background to the NIAH

1. Granada Convention

The Council of Europe, in Article 2 of the 1985 Convention for the Protection of the Architectural Heritage of Europe (Granada Convention), states that '*for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each Member State will undertake to maintain inventories*

of that architectural heritage.' The Granada Convention emphasises the importance of inventories in underpinning conservation policies. The NIAH was established in 1990 to fulfill Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland.

Article 1 of the Granada Convention establishes the parameters of this work by defining 'architectural heritage' under three broad categories of Monument, Groups of Buildings, and Sites.

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

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

2. Record of Protected Structures and the NIAH

The Planning and Development Act 2000 requires each planning authority to compile and maintain a RPS. The RPS is a mechanism for the statutory protection of the architectural heritage and forms part of each planning authority's development plan. The Minister for Arts, Heritage and the Gaeltacht may recommend structures to the planning authorities for inclusion on the RPS. Sites / structures / groups of structures rated by the NIAH as being of Regional or above importance are included in the Minister's recommendations. The NIAH is currently carrying out a programme of County Surveys in order to indicate to planning authorities a representative sample of the range of structures worthy of protection in their administrative areas.

Excavations Bulletins (www.excavations.ie)

Excavations' Bulletin is an annual account of all excavations carried out under license. The database is available on line at www.excavations.ie and includes excavations from 1985 to 2009. This database was consulted as part of the desktop research for this assessment to establish if any archaeological excavations had been carried out within the study area.

7.2.5 CARTOGRAPHIC SOURCES

Cartographic sources were examined to identify any other cultural heritage sites and assess the landscape potential of the study area. The following cartographic sources were consulted:

- OS County Laois and Kilkenny 1st Edition Maps. Scale 1:10,560. Date 1840-42
- OS County Laois and Kilkenny 2nd Edition Maps. Scale 1:10,560
- OS Digital Raster Discovery Series mapping, County Laois and Kilkenny 1:50,000. Date 2006
- High resolution aerial photography of study area

7.2.6 MAPPING AND GIS

All maps produced in this EIS were created by Annette Quinn (Tobar Archaeological Services) using ArcView GIS 9. The georeferenced base mapping was provided in raster format (discovery, 6 inch and aerial) by the client and as the project progressed the line and structure locations (proposed and existing) were provided in dxf. or shapefile (ESRI) format and added to the base maps. The datasets for any available archaeology, architectural or cultural heritage items were downloaded and also added to the base map. This allowed an accurate and effective means of analysing potential impacts on cultural heritage.

7.2.7 FIELD SURVEY

A programme of field inspection for all components of the project was undertaken between September 2011 and June 2013. Not all lands were permitted to be accessed at the time of survey but every attempt was made to gain information from adjacent fields or consult detailed high scale aerial photographs. Those lands that were accessed were surveyed with the permission of the landowner.

Direct Physical Impact on Cultural Heritage features

The field assessment was carried out in order to assess the potential impact of the proposed elements of the project on recorded archaeological monuments, protected structures and any items of cultural heritage. Any features located within 50m-100m of the route (1km corridor for National Monuments) were visited (where permitted). The distance of 50m-100m was considered an appropriate distance in order to assess potential direct impacts of the project on physical features (archaeological, architectural and cultural heritage). A 1km corridor along the line route was considered an appropriate distance to assess the potential impact on National Monuments. Where proposed construction access tracks traversed within close proximity to any cultural heritage features these were also inspected, where permitted, in order to provide any necessary mitigatory measures to avoid negative impacts.

Visual Impact on Cultural Heritage Features

National Monuments within 3km from the proposed substation site and any other additional monuments which are historically/archaeologically significant were also visited and addressed in this report regardless of their distance from the proposed overhead line. These structures include historic sites such as Timahoe Round Tower and the Rock of Dunamase. Field work also served to identify any previously unrecorded archaeological monuments or features/structures of architectural or cultural heritage significance.

All components of the proposed reinforcement project were addressed and subject to field survey (where permitted) to include the substation sites, structure locations (proposed wooden poleset locations, proposed angle mast locations, guarding points), proposed construction access tracks and any relevant sites of archaeological or cultural heritage note.

7.2.8 CONSULTATIONS

A number of consultations were undertaken with the relevant authorities.

1. The Heritage Officer from Laois County Council was consulted regarding an updated list of Protected Structures and the Heritage Officer from Kilkenny County Council was also consulted in this regard.
2. Several consultations were undertaken between Tobar Archaeological Services and the Infrastructure Non-Roads section of the Department of Arts, Heritage and the Gaeltacht (DAHG). This was to clarify the assessment process being undertaken for this particular project and to ensure that all concerns were taken into consideration.

7.2.9 STATUS AND PROTECTION

7.2.9.1 Current Legislation

Recorded Monuments

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

The Record of Monuments and Places (RMP) was established under Section 12 (1) of the National Monuments (Amendment) Act 1994 and consists of a list of known archaeological monuments and

accompanying maps. The Record of Monuments and Places affords some protection to the monuments entered therein. Section 12 (3) of the 1994 Amendment Act states that any person proposing to carry out work at or in relation to a recorded monument must give notice in writing to the Minister (Environment, Heritage and Local Government) [now Arts, Heritage and the Gaeltacht] and shall not commence the work for a period of two months after having given the notice. All proposed works, therefore, within or around any archaeological monument are subject to statutory protection and legislation (National Monuments Acts 1930-2004).

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

Built Heritage

Under the Heritage Act (1995) architectural heritage is defined to include 'all structures, buildings, traditional and designed, and groups of buildings including street-scapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents...'. A heritage building is also defined to include 'any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political, social or religious history of the place where it is situated or of the country or generally'. Under the same legislation a heritage building is defined as 'any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political, social or religious history of the place where it is situated or of the country or generally, and includes the amenities of any such building...'. Additional legislative protection for architectural heritage also comes under the Convention for the Protection of the Architectural Heritage of Europe (The Granada Convention) which was ratified by Ireland in 1997.

Part IV of Planning and Development Act 2000, as amended, deals with architectural heritage. Under the Planning and Development Act 2000 every Development Plan shall include a Record of Protected Structures 'for the purpose of protecting structures, or parts of structures, which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest...'.

Protection is also afforded to the curtilage and attendant grounds of a protected structure. By definition a protected structure includes the land lying within the curtilage of the protected structure and other structures within that curtilage (Architectural Heritage Protection Guidelines for Local Authorities, 2004). The guidelines also state that 'the notion of curtilage is not defined by legislation, but for the purposes of these guidelines it can be taken to be the parcel of land immediately associated with that structure and which is (or was) in use for the purposes of the structure' (ibid.). The attendant grounds of a structure are lands outside the curtilage but which are 'associated with the structure and are intrinsic to its function, setting and/or appreciation' (ibid.).

National Monuments

National monuments in State care include those which are in the ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht (DAHG). Other owners of national monuments are empowered under the provisions of the National Monuments Act to appoint the Minister for Arts, Heritage and the Gaeltacht as guardian of such monuments. This means in effect that while the property of such a monument remains vested in the owner, its maintenance and upkeep are the responsibility of the State. Archaeological monuments that are in the ownership or guardianship of a Local Authority may also require ministerial consent.

7.2.9.2 Policy

Laois County Development Plan 2011-2017

Laois County Development Plan 2011-2017 outlines a number of policies and objectives relating to archaeology and architectural heritage. According to the plan 'the archaeological heritage of Laois includes structures, constructions, groups of buildings, developed sites, all recorded monuments as well as their contexts, and moveable objects, situated both on land and underwater. (*The European Convention for the Protection of Archaeological Heritage, Valetta 1992*)'.

Those relating to archaeology include but are not limited to:

Archaeology

It is the policy of the Council to:

BH 14 / P24

Support the conservation, interpretation and appreciation of significant archaeological assets in the County;

BH 14 / P25

Protect the settings of National Monuments from inappropriate development;

BH 14 / P26

Protect the integrity, character, value and settings of Recorded Monuments and Places from inappropriate development;

BH 14 / P27

Ensure the appropriate management of Zones of Archaeological Potential;

BH 14 / P28

Seek advice from the Department of the Environment, Heritage and Local Government on planning applications likely to have an impact on RMP sites

BH 14 / P29

Have regard to archaeological advice from the Department as it relates to the determination of individual Planning applications. The Council will also have regard to national guidelines relating to archaeological heritage such as Framework and Principles for the Protection of the Archaeological Heritage (DoEHLG 1999);

BH 14 / P30

Support the preservation or conservation of historically significant street patterns, building lines and plot widths in its towns and villages as well as the preservation of features such as town walls, historic revetments, and public realm features such as granite kerbing, historic drinking fountains, whether or not they benefit from protection in their own right

BH 14 / P31

Encourage the conservation of structures of special industrial archaeological interest.

BH 14 / P32

Protect and enhance archaeological monuments and their settings including town walls, town embankments and ditches, town gates, bastions or ancillary fortifications.

BH 14 / P33

Facilitate appropriate guidance in relation to the protection of the archaeological heritage in the area covered in the Plan.

BH 14 / P34

provide guidance to developers and property owners regarding the archaeological implications of a proposed development.

BH 14 / P35

promote pre-planning consultations in relation to the archaeological heritage with the Planning Authority and with The Department of the Environment, Heritage and Local Government.

BH 14 / P36

endeavour to ensure the dissemination of the results of archaeological excavation in a timely and appropriate manner.

BH 14 / P37

promote public awareness of the rich archaeological heritage in the area.

Zones of Archaeological Potential

It is the policy of Laois County Council to:

BH 14 / P20

Ensure protection of Zones of Archaeological Potential, as identified in the Record of Monuments and Places;

BH 14 / P21

Have regard to archaeological heritage when considering proposed infrastructure developments (including transport, telecommunications, sewerage and water) located in close proximity to Recorded Monuments or Zones of Archaeological Potential;

BH 14 / P22

Ensure that all archaeological excavations are undertaken to the highest standard and the resultant information made publicly available. Developers will be required to have regard to Archaeology & Development: Guidelines for Good Practice for Developers (ICOMOS, 2000) in Planning and executing development in sensitive areas;

BH 14 / P23

Continue to develop the Council's educational role with regard to the built heritage and to promote awareness and understanding of the built heritage.

Specific Objectives

The following are some specific objectives in relation to Archaeology outlined in the CDP 2011-2017 and may be relevant for this project:

BH 14 / O10

Secure the preservation (in-situ or by record) of all sites and features of historical and archaeological interest;

BH 14 / O12

Preserve the integrity of existing archaeological monuments in their settings including the integrity of town defences;

BH 14 / O13

Ensure that development in the vicinity of a site of archaeological interest shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing;

BH 14 / O17

Require the preparation and submission of an archaeological assessment detailing the potential impact of any development on both upstanding monuments, and buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains;

BH 14 / O18

In securing such preservation, the Planning Authority will have regard to the advice and recommendations of the Department of the Environment, Heritage and Local Government, both in respect of whether or not to grant planning permission and in respect of the conditions to which permission, if granted, should be subject.

BH 14 / O19

When considering development in the vicinity of all upstanding monuments including town defences, the Planning Authority will require the preparation of submission of an archaeological assessment detailing the potential impact of any development on both upstanding buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains.

Industrial Archaeology

The industrial archaeology of Laois was the subject of a major survey by the Laois Heritage Forum in 2003. The results of this survey and future field surveys will be used to inform the implementation of the County Development Plan and the formulation of future policies. Laois County Council will afford appropriate protection to such industrial archaeological sites as may come to light following future surveys. In considering the protection of the industrial heritage of the county ancillary heritage millraces, for example, will also be protected.

The council also outline policy and objectives in relation to Built Heritage and include the following:

BH 14 / O01

Encourage the understanding of, access to and promotion of County Laois' historic architectural heritage and archaeological heritage;

BH 14 / O02

Recognise the importance of archaeology and National Monuments as part of our heritage and will provide public access, subject to reasonable conservational restrictions, to Archaeological sites and National Monuments in state, council or private ownership. Traditional access routes will be designated as public rights of way. In other cases, routes will be acquired either by agreement with landowners or way of compulsory powers. Appropriate signage will be put in place.

BH 14 / O03

Protect the intrinsic value, character, integrity and settings of monuments and places in the Record of Monuments and Places (RMPs) and any forthcoming statutory register and protect Zones of Archaeological Potential against inappropriate development;

BH 14 / O04

Protect all structures listed in the Record of Protected Structures, that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical character or interest in County Laois;

BH 14 / O05

Designate and Develop Architectural Character Areas in Portlaoise, Abbeyleix and Durrow, Timahoe, Castletown and Ballinakill over the Plan period.

Kilkenny County Development Plan 2008-2014

The Kilkenny County Development Plan 2008-2014 outlines a number of policies and objectives relating to archaeology and architectural heritage.

Built Heritage

'H93 Ensure the protection of the architectural heritage of County Kilkenny by including all structures considered to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the Record of Protected Structures.

H94 To have regard to the Architectural Heritage Protection Guidelines issued by the Department of the Environment Heritage and Local Government in 2004 when assessing proposals for development affecting a protected structure.

H100 To protect elements of designed landscapes of special interest located within the attendant grounds of Protected Structures, including boundary features.'

Archaeology

'H79 To ensure the preservation in-situ, or preservation by record of:

(a) The archaeological monuments included in the Record of Monuments and Places as established under section 12 of the National Monuments (Amendment) Act, 1994 and in the Urban Archaeological Survey of County Kilkenny.

(b) Any other sites and features of historical or archaeological interest.

(c) Any subsurface archaeological features that may be discovered during the course of infrastructural/development works.'

'H82 To require an appropriate archaeological assessment to be carried out in respect of any proposed development likely to have an impact on a Recorded Monument, a Zone of Archaeological Potential, or their settings.'

'H90 To ensure that development in the vicinity of a Recorded Monument or Zone of Archaeological Potential does not seriously detract from the setting of the feature, and is sited and designed appropriately.'

The Kilkenny County Development Plan also includes the Record of Protected Structures (RPS) for the county which lists all buildings or structures with protected structure status as the time of publication. A protected structure may be defined as a structure that a planning authority considers to be of special interest in a number of ways including architectural, historical and archaeological.

Items of street furniture are included in Kilkenny County Development Plan as part of the built and cultural heritage of the county. Such items include seats, post-boxes, horse troughs, milestones, plaques and other monuments. The following policy relates to the protection of these features:

'H113 Protect and enhance historic items of street furniture and roadside features, as appropriate.'

7.3 RECEIVING ENVIRONMENT

7.3.1 ARCHAEOLOGICAL HERITAGE

The archaeological heritage includes National Monuments, Recorded monuments and any new items detected during field inspection. Archaeological heritage will be discussed according to each component / Unit of the proposed reinforcement project.

National Monuments

The National Monuments located along the proposed reinforcement project are both in State ownership and recorded monuments in the ownership of the County Councils / Local Authorities. Figure 7.1 shows all National Monuments along all relevant Units. A number of sources were utilised to obtain information on National Monuments and are as follows:

- The National Monuments Service list of National Monuments presented on a County by County basis (Kilkenny and Laois)
(<http://www.archaeology.ie/NationalMonuments/NationalMonumentsinStatecarebycounty/>)
- The Kilkenny County Council Burial Grounds Mapping Database –

(http://www.kilkennycoco.ie/eng/Services/Digital_Mapping/Google_Maps_Applications/Burial_Grounds/)

- The Representative Church Body Library (RCB) – Raymond Refausse (pers comm.) regarding Cremorgan Church and Graveyard, Co. Laois National Monument Status.

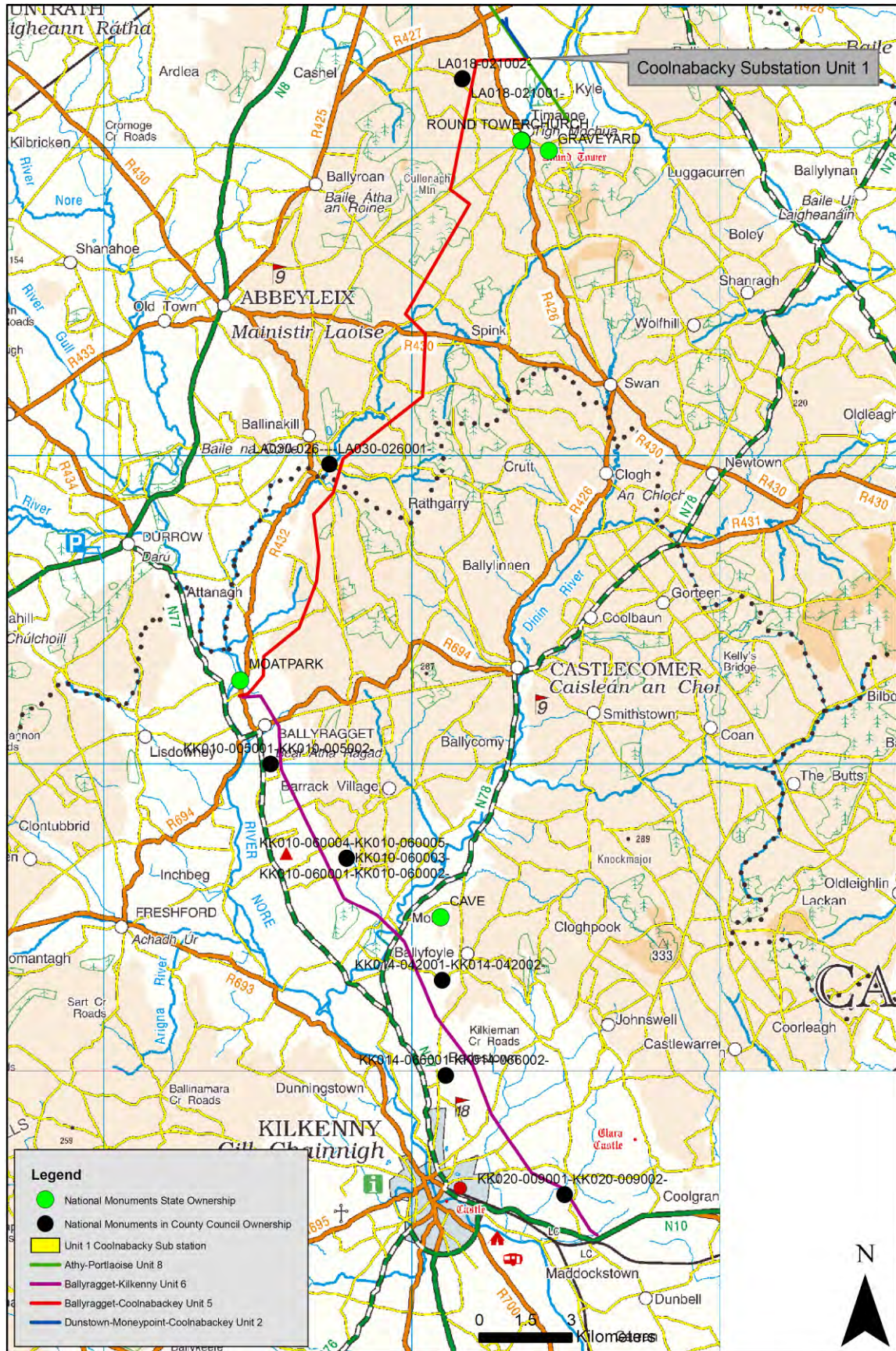


Figure 7.1 National Monuments

7.3.1.1 Unit 1 - New 400/110kV GIS substation at Coolnabacky townland, Co. Laois

7.3.1.1.1 National Monuments

No National Monuments are located within the immediate area of the proposed substation site. All National Monuments within a 3km distance from the substation site have been included here. Three National Monuments (State and County Council Ownership) are located within the general vicinity of the proposed substation site and are listed Table 7.1 and Table 7.2.

Although The Rock of Dunamase (LA013-052) is located outside the 3km study area, it was also considered as part of this assessment given its National Monument status and location to the north of the proposed substation site. It is located 5.3km to the north of the proposed substation site (Figure 7.2). The castle is situated to the north of the N80 and divided from the study area by prominent topographical features which effectively screen the site from the proposed development area. The hills include Hewson Hill and the hills to the north-east of the latter. No clear views to the proposed development area from the highest point of the Rock are possible due to the natural topography that exists in the landscape (note interaction with Section 6 Landscape and Visual Impact).

The Archaeological Survey of Ireland describe the castle as follows: 'Known as Dun Masc, the fort of Masc, from Masg, son of Augen Urgruidh, 4th son of Sedha Sithbhaic King of Leinster. It was the stronghold of the O'Mores, Kings of Leix. In 1170 Diarmait MacMurchada gave it to Strongbow, as part of his daughter Aoife's dower and it passed to Roger de Mortimer in the partition of Leinster in 1247. In 1609 it was granted to Donat O'Brien, earl of Thomond. In 1641 it was taken by Sir Charles Coote but it was recaptured by Eoin Rua O'Neill in 1646. It was dismantled by the Cromwellian generals Hewson and Reynolds in 1650. Sir John Parnell constructed banqueting halls and other buildings here in 1795 (JKAS Vol VI; 161). Leask states that the castle was built c.1250 by William de Braose, however he had been dead since 1247, when the Marshall lordship was partitioned (Urban Survey 1986, 25). An inquisition of De Mortimers lands in 1323 found that the castle had been burned by the Irish, and in 1342, on the death of Laoighseach O Mordha it was recorded that he had destroyed the castrum nobile de Dunmaske and usurped De Mortimers power (O'Leary 1909-11, 165). Dunamase castle is specifically mentioned in the 1538 submission of Piers Mac Maolsheachlainn O Mordha which he made as part of the policy of surrender and regrant (Urban Survey 1986, 25). The castle is co-extensive with the rock outcrop and it consists of a Keep with an inner ward, a middle ward with a sallyport in SE side of the curtain wall and a twin-towered gatehouse, an outer ward with gatehouse, and an external triangular shaped bailey (int. dims. 80m by 60m). The keep appears to be the earliest building dating from c. 1220 and may be as early as 1180 (Urban Survey 1986, 25)'.

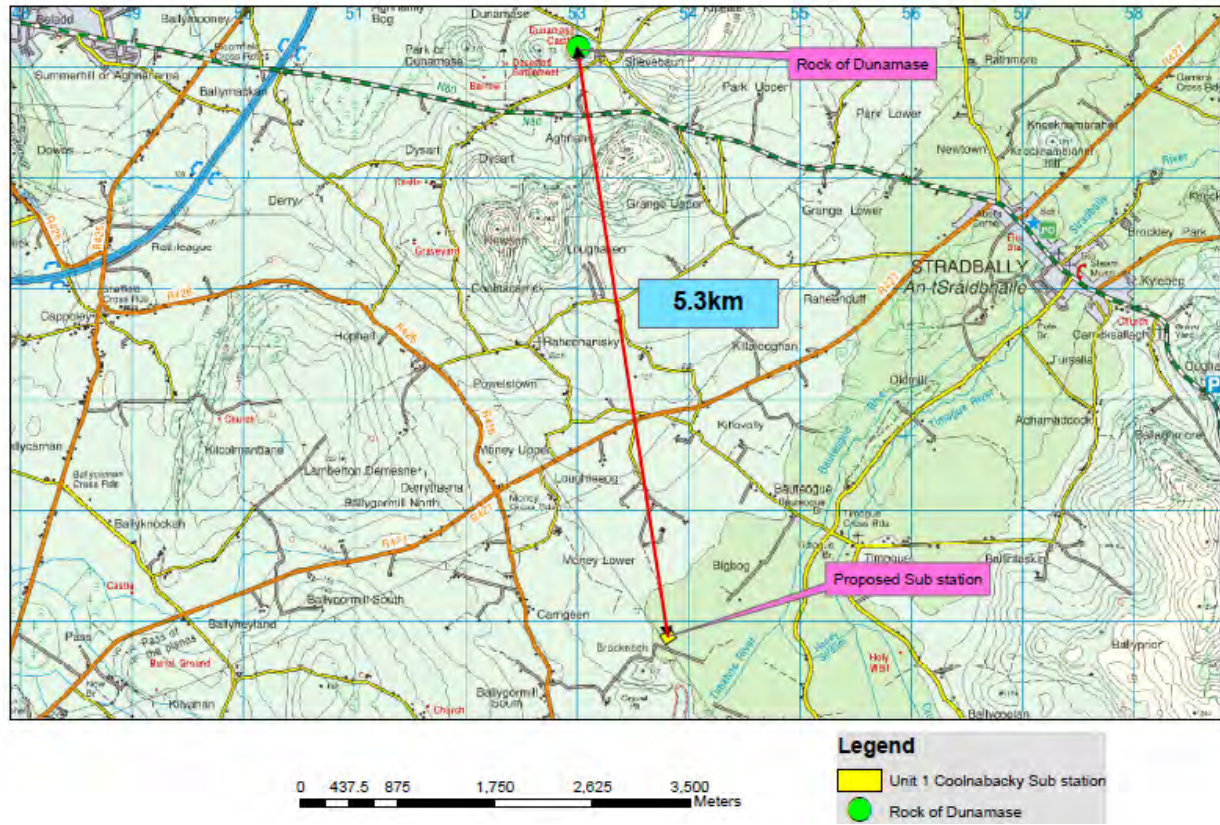


Figure 7.2 Rock of Dunamase in relation to proposed substation site



Plate 7.1 View looking south towards proposed development site from highest point of Dunamase Castle

| Easting | Northing | SMRS | TOWNLAND | CLASS | REG_NO | Distance from substation |
|---------|----------|---------------|-------------|-------------|--------|--------------------------|
| 254453 | 189898 | LA019-016001- | FOSSY LOWER | GRAVEYARD | 114 | 3km |
| 253570 | 190230 | LA018-031002- | TIMAHOE | CHURCH | 114 | 2.7km |
| 253564 | 190219 | LA018-031005- | TIMAHOE | ROUND TOWER | 114 | 2.7km |

Table 7.1 National Monuments in State Ownership within 3km of Unit 1

| Easting | Northing | SMRS | TOWNLAND | CLASS | County Council ID | Distance from Substation |
|---------|----------|---------------|-----------|-----------|-------------------|--------------------------|
| 251650 | 192230 | LA018-021001- | CREMORGAN | Church | N/A | 2.2km |
| 251640 | 192220 | LA018-021002- | CREMORGAN | Graveyard | N/A | 2.2km |

Table 7.2 National Monuments in County Council Ownership within 3km of Unit 1

The Early Medieval Period

Timahoe ecclesiastical complex LA018-031/001-009

This complex is located 2.7km from the proposed substation site and was visited as part of the assessment process. The proposed substation site is not visible from the complex and is largely screened by trees within the complex itself.

Ecclesiastical Site: The archaeological Inventory of County Laois describes the complex as follows; St. Mochua, who died c. 657 founded an Early Christian monastery here. It was plundered and burnt in 919 and 1142 (Gwynn and Hadcock 1970, 45). In later medieval times, the O'Mores refounded the monastery, and in 1609 it was granted to Richard Cosby. The round tower (LA018-031005-) is the only surviving feature of the early foundation. It probably dates to the twelfth century, though its base may be earlier. Built of sandstone and limestone, it is six storeys high (H 29.6m) and is roofed with a conical cap (Barrow 1979, 135-9). No floors survive. It is renowned for its Romanesque doorway, visible at first floor level, which has four receding orders, in two pairs, and is finely decorated with human heads with intertwined hair. A window decorated in a similar style is visible at second floor level. Slit, square-headed and pointed windows are on the other floors.

The fifteenth century church, to SE of tower, was transformed in the sixteenth century into a tower house (LA018-031006-) (Harbison 1970, 141), probably by one of the Cosbys. The only surviving feature of this church is a large arch (Wth 3.95m), possibly the chancel arch, which was blocked up and incorporated into the E wall of the castle. It is composed of punch-dressed chamfered limestone with evidence of diagonal tooling (Petrie 1845, 234-43; Crawford 1924, 31-42).

The Church – LA018-031/002

A church was founded here by St. Mochua who died in 657 (JRSAI Part I Vol. IV, 31). Round tower (LA018-031005-), castle (LA018-031006-) and graveyard (LA018-031003-) are all that remains of the monastery of Timahoe. Reference to the Penitentiary or Oratory of Tech-Mochua here where in 1096. Gilmurry McDuff the Chief of Hy-Crimhthannan, was killed by Magrath O'More. (O'Hanlon and O'Leary, 1907, vol. 1, 375).

The Graveyard -LA018-031-003

All visible headstones post date 1700 AD. Rectangular shaped graveyard (int. dims. 107m N-S; 79m E-W) enclosed by a stone wall as indicated on current ed. OS 6-inch map. C of I church in N quadrant of graveyard.

Burial LA018-031-004

A large quantity of human remains was discovered within the ruins of Timahoe castle (LA018-031006-) and beside the round tower (LA018-031005-). In 1598, 1200 people were killed in the battle between General Harrington and Melaghlen O'Moore (O'Byrne, D, 1856, 39-40).

D. O'Byrne described the circumstances in which the bones were unearthed as he says 'About thirty-four years ago a young man, by name Foran, with whom I was acquainted, dreamed that three pans of gold lay buried in the floor of the Castle of Timahoe: on the day following the night on which he dreamed he came and digged for the three pans of treasure, and in digging actually found beneath the surface three pans of small bones. This really appears strange, as the pans rested not more than a foot under the surface' (JRSAI V, 1858-9, 106).

Round Tower LA018-031-005

Built with sandstone and limestone blocks (height 96 to 97 feet (JRSAI Part I Vol LIV, 31-45). Circumference at base of main body c. 17.5m, circumference of foundation level c. 20.75m). It contains a romanesque doorway with four orders of sandstone blocks at first floor level in the E face. At the W is a single stone round-arch window, at the S is a pointed arched window of four stones and at the top of the tower is a two stone pointed arch window at each point of the compass. The tower is six storeys high each wooden floor being carried on an offset. The two first floors were not lighted by any windows, the third storey was lit by a doorway on the E face which was approx. 15 ft. above the level of the ground. The fourth floor was lit by a pointed window in the S face, small square window in the N face at fifth floor level, and the sixth floor was lit by a square window on the W face. Four triangular headed windows facing the four cardinal points are situated on the top floor immediately beneath the conical cap. The internal arch of the doorway is decorated with lozenge patterns or chevrons while the doorway is decorated with Typical Romanesque features such as human faces on the angles of the capitals.

The Tower House LA018-031-006

The lands were granted to Sir Thomas Loftus after the suppression and to Richard Cosby in 1609. The Abbey was fortified by the Cosbys in the late sixteenth century (JRSAI, Vol. LIV, 34; O'Hanlon and O'Leary 1907, 243) and they may have built a castle there during the reign of Queen Elizabeth (O'Hanlon and O'Leary 1907, vol. 1, 243). The fifteenth century church, to SE of tower, was transformed in the sixteenth century into a tower house (LA018-031006-) (Harbison 1970, 141), probably by one of the Cosbys. The only surviving feature of this church is a large arch (Wth 3.95m), possibly the chancel arch, which was blocked up and incorporated into the E wall of the castle. It is composed of punch-dressed chamfered limestone with evidence of diagonal tooling (Petrie 1845, 234-43; Crawford 1924, 31-42). Reference to a sheela-na-gig (LA018-031007-) at the doorway (JRSAI 1936, 114), not now visible. Remains consist of E wall (L c. 12.45m) and short returns of N and S walls. The E wall incorporates the blocked-up chancel arch. Large beam holes visible on the inner face of the E wall at first-floor level and also a doorway leading to a chamber in SE angle. Evidence of slit opes in remains of N and S walls, now much destroyed and otherwise featureless.

Sheela-na-Gig LA018-031-007

Reference to a strange figure in stone at the doorway of Timahoe tower house (LA018-031006) and a grotesque stone figure (Anon 1894, 80, 393). Not clear whether this is referring to the same or a second figure. According to local information, there was a figure on the part of the N wall which has fallen; it may be buried beneath debris (Guest 1936, 114). No visible surface remains. In 1894 it was recorded that at Timahoe there was 'a grotesque figure requiring further inquiry' (Anon 1894, 393). In the same year it was recorded that at Timahoe Castle (LA018-031006-) there was 'a strange figure in stone, at the doorway of this castle. Its claim to admission in the list is open to doubt; but it is figured in a series of drawings belonging to the late Thomas Cooke, Esq., of Parsonstown, in 1870, and now owned by a gentleman in the south of Ireland, who kindly lent them to the writer' (Anon 1894, 80). In 1935 Guest wrote that 'it is not clear whether one figure is referred to, or two; none at all can now be seen. From personal information it appears that there was a figure on the part of the north wall that has now fallen, and it probably lies buried in the debris' (Guest 1936, 114).

Shrine LA018-031-008

The shrine was known as the Caimmin and was probably a Crosier. It was taken by O'More in 1069. (JRSAI, 1923, 76).

Burial LA018-031-009

Bronze Age burial discovered under or in the vicinity of the round tower (LA018-031005-) of Timahoe (Feehan 1983, 402). An urn found near Timahoe, Co. Laois containing cremated bones was found in a triangular cist, formed by three upright flags with a flag at top and bottom (JRSAI 1849-51, 139; Waddell 1990, 105).

The Medieval Period

Fossy Lower Church and Graveyard LA019-016

Fossy Lower Church and Graveyard which are National Monuments in State Care are located 3km from the proposed substation site and this is considered to be a sufficient distance to avoid any potential visual impacts. The church, graveyard and cross slab (LA019-016 -002) are located in Fossy Lower Td. and are described in the *Archaeological Inventory of County Laois* as follows; '*A late sixteenth-century parish church (L c. 13.8m, Wth c. 7.7m), built of uncoursed rubble, with a slight base-batter. Broken-out doorway (Wth c. 1.4m) in W gable. Five windows visible in S wall and four in N wall. In both walls one window is much larger than the others. The window dressings had been removed prior to repairs by the OPW in 1945 (OPW file). The smaller windows are simple rectangular opes which are chamfered and have glazing-bar-holes and grooves. Four are placed very high above the ground level. Piscina in SE angle. An Early Christian cross-slab (LA019-016002-) was recently found in the graveyard (LA019-016001-) (pers. comm. D. Delaney)*'.

The site was revisited by Caimin O'Brien on the 01 May 2007 and is described as follows:

'In pasture, situated in an upland area on the S facing slope of rising ground with good views in all directions. Present remains consist of a restored medieval parish church (ext. dims. 7.7m N-S; 13.9m;

wall T 1m) built with uncoursed limestone rubble with dressed alternating quoin stones and a base batter visible on all four corners. The church is entered through a late medieval doorway in the centre of the W gable of which only two of the lower jambstones on the S side are intact. The church is lit by three windows in the N wall, one of which has been into the top of the wall located off centre to the W. The other two windows have different window sill heights suggesting they belong to different phases of the buildings history. The window at ground floor level (sill H 1m) located off centre to the W consists of a flat headed limestone window with dressed jambstones which suggest a late sixteenth or early seventeenth century date. This window is set into a square-shaped embrasure with segmental arch constructed with narrow radial voussoirs. Above this arch there are the traces of an earlier window embrasure arch. Directly above this window there is a similar late medieval window that has been inserted into the top of the wall (ext. H 3.5m), it is unclear if this window has been set back into its correct location after the OPW repairs of 1945. The other larger window (sill H 1.25m) which is set into a larger window embrasure is located off centre to the E is missing its stone surround but the window sill of this opening is at different height to the late medieval window. To the E of this window there is the lower half of a window set into the top of the wall near the NE angle of the church.

The S wall contains two late medieval flat-headed windows with dressed limestone surrounds located off centre to the W one of which is at ground floor level and the other which is set at first floor level (ext. H 3.5m). A third larger destroyed window is located off centre to the E and appears to be an earlier window than the late medieval windows. To the E of this window there is a small flat headed late medieval window. There is a small flat headed niche or aumbry (H 0.7m x Wth 0.7m x D 0.45m) in the SE angle of the church. There is no evidence for any drainage hole within this aumbry to suggest that it may have been used as a piscina. Directly above this aumbry there is the lower half of a window that has been set into the top of the wall of the church.

The E gable contains a destroyed window in the centre of the gable that is set into a large segmental arched embrasure with cut stone surround of which only the N springer survives.

The two larger windows which are set into the N and S walls located off centre to the E appear to predate the later flat headed windows which are set into smaller square-shaped embrasures. The presence of four windows set into the top of the walls at the E and W ends of the church may suggest the presence of a first floor inside the church, this floor may have been inserted when the church appears to have been re-fitted with new windows in the late sixteenth or early seventeenth century. These flat headed limestone windows display evidence of pocked dressing with blank margins and have iron grill holes but have no glazing grooves. There is no evidence for floor joists on the inner faces of the wall but these may have been filled up by the OPW repairs in 1945. The church is located inside an irregularly shaped graveyard (int. dims. 56m N-S; 34m E-W) defined by a stone wall with 18th and 19th century memorials to the W and S of the church.

Described in the OS Letters in 1838 as 'The east gable contained a large pointed window, now nearly reduced to a breach. The north and south walls contained windows which are all reduced to breaches except one square window in each, which is of no interest. I should say that this was a little chapel built, or perhaps rebuilt or remodelled, about the year 1608. No Patron is remembered (O'Flanagan 1933, vol. 1, 87). Described by Daniel Byrne in 1856 as 'Fossy monastery, commonly called Fossy church, which latter is situated on the lands of Farna Frira. The ruins measure inside 36 feet (10.9m) by 18 (5.5m). The walls nearly three feet (0.9m) in thickness, and two storey high. It appears that an edifice stood about 21 feet (6.4m) from the west end of this monastery, which edifice measures inside 18 feet (5.5m) by 15 (4.6m). The walls of this ruins are nearly three feet in thickness (0.9m). Those ruins may have been the primeval religious establishment. The standing ruins have been repaired, and changes were made as to the doorways and windows. It is very probable that the ruins of this building, namely the latter and large edifice, were fitted up, and a church established there, according to the reformed mode of English worship. However, it is clearly evident that the edifice was originally a monastery, as, on the epistle side of the altar, over which was the chancel window, are the remains of a sedilia. How large the sedilia was, in the wall of the Fossy monastery, we cannot ascertain, as a part of the wall was destroyed, and afterwards rebuilt, in doing which the sedilia was closed up. The traces of an old road have been discovered, leading from Teigh-mogue, or Timogue, to this ancient establishment, making the distance between them not more than one mile.' (Byrne 1856, 41-2).

Cremorgan Church and Graveyard LA018-021001-LA018-021004

This site was visited as part of the assessment process both to assess any potential direct impacts or visual impacts. This site is being regarded as a National monument (i.e. a recorded monument in the ownership of the Local Authority). Visual impact is assessed here by obtaining views from the site itself in the direction of the proposed substation. Topography between the monument and the proposed substation is also taken into consideration. Furthermore, although the site is thought to be in the ownership of the Local Authority, access to the site is through private land and is not accessible to the public. The site is in a poor state of preservation and many structures within the church such as tombs are exposed and vandalised. The western enclosing wall of the graveyard has also collapsed.

It is situated 2.3km from the proposed substation site and will not be visible from the latter. No visual impacts are anticipated therefore.

National Monument Status

A thorough search was undertaken to obtain information regarding the ownership status of the church and graveyard site at Cremorgan and as to whether the site is a National Monument or not (i.e. in Local Authority Ownership). It is not listed in the 27 burial grounds listed as being in the ownership of Laois County Council (pers comm., Heritage Officer Laois County Council). The Representative Church Body Library archives were consulted to ascertain if the monument may be in the ownership of the Church of Ireland. According to the Mr Raymond Refausse (RCB library archivist), the '*The ownership of Cremorgan/Kilcolmanbrack alias Kilclonbrook church and graveyard was not vested in the Representative Church Body under the terms of the Irish Church Temporalities Commission General Vesting Order of 1879 under which the Church of Ireland holds most of its church properties*'. The church and graveyard are not in the ownership of the Church of Ireland.

According to Raymond Refausse, '*Cremorgan burial ground was vested in Abbeyleix Union by the Irish Church Temporalities Commission and so today is taken to be the responsibility of the relevant local authority*'. It is likely that the church was in ruins in the late 19th century and was vested in Abbeyleix Union together with the graveyard.

Furthermore, a land registry search was undertaken by Eirgrid using the Property Registration Authority and it was concluded that the lands on which the church lie are unregistered. The original access to the church is now occupied by farm buildings and the only access to the site is via a private passageway.

Cremorgan Church LA018-021/001

The church is described in the Archaeological Inventory of County Laois as follows: '*Associated with St Colman (O'Hanlon and O'Leary 1907, vol. 1, 246). Nave and chancel church (L c. 13.75m; Wth c. 8m) built of roughly coursed limestone and sandstone rubble, within a rectangular graveyard 9LA018-021002). Surviving features include a single-light tracery window in the E gable, and a pointed arch doorway, with a later brick arch insertion, in S wall. A cut stone dressed capital with a chamfered outer edge is visible on N jamb. Buttress to S of doorway is visible on N jamb. Buttress to S of doorway. Remains of an aumbry at E end of S wall. This was the burial place of the O'Moores of Cremorgan (Comerford 1886, vol. 3, 375). An earthen bank (Wth c. 2.55m, int. H c. 0.4m, ext. H c. 1.25m), retained by a stone wall externally, defines the graveyard from NW-SE. In 1616 a rector named Thomas Haslam, a reading minister with a residence. The church and its chancel were then in good repair and furnished with books (O'Hanlon and O'Leary 1907, vol. 1, 246).*

Cremorgan Graveyard LA018-021-002

In undulating countryside. Some uninscribed grave markers at the South of the Church (LA018-021001-). Several tombs of the Moores are to be found within the chancel of the former church which is now dismantled. It is walled off from the road leading to Timahoe, which is near and enclosed within a graveyard (LA018-021002-) that is seldom frequented (O'Hanlon and O'Leary 1907, vol. 1, 246). This was the burial place of the O'Moores of Cremorgan (Comerford 1886, vol. 3, 375). An earthen bank (Wth c. 2.25m; int. H c. 0.4m; ext. H c. 1.25m), retained by a stone wall externally, defines the graveyard (LA018-021002-) from NW-SE. Square shaped graveyard (int. dims. 27m N-S; 30m E-W) enclosed by a stone wall containing post 1700 AD memorials.

Cremorgan Tomb LA018-021-003

Not marked on the 1841 or 1909 eds OS 6-inch maps. Burial place of the Moores of Cremorgan (Comerford 1886, vol. 3, 375). Visible are four O'More tombstones post 1700 AD in date.

Cremorgan Enclosure LA018-021-004

In undulating countryside. Remains of an earthen bank (max. Wth 2.55m; Top Wth 1.2m; int. H 0.4m; ext. H 1.25m) retained by a stone wall externally except at S and SW and W. Stone wall replaces it at SW and the entrance gate replaces it at the W.

History of Cremorgan Church and Graveyard

Cremorgan or Kilclonbrook is described in Lewis topographical Dictionary of Ireland as follows; KILCLONBROOK, or CREMORGAN, a parish in the barony of CULLINAGH, QUEEN'S county, and province of LEINSTER, 4 miles (S. W. by S.) from Stradbally, on the road from that place to Abbeyleix; containing 84 inhabitants. Cremorgan is the seat of L. Moore, Esq. The living is a rectory, in the diocese of Leighlin, and patronage of the Bishop: the tithes amount to £38. 2. 4. In the R. C. divisions it forms part of the union or district of Stradbally.

Cremorgan Church is also described in the book entitled 'Cullenagh – Digging and Ditching, An Authentic Land' (2011, Cullenagh Community Group, 25) as follows:

The church is associated with St. Colman (O'Hanlon and O'Leary 1907, vol. 1, 246) and has had a long history of occupation and was still in use in the seventeenth century. '*The site constituted the parish centre of Kilcolmanbrack, which along with the parish of Timahoe formed a territory known as Feranoprior (Prior's Land) immediately prior to the Plantation, as listed in Edward VI Fiant No. 716 (cited in Fitzgerald, 1909-11). The parish was therefore categorised as church land and appropriated as such, passing into the hands of a branch of the O'Mores by the beginning of the seventeenth century (there being some controversy in genealogical circles over whether the O'Mores of Cremorgan are the direct descendants of the Gaelic chieftains).*

An extract from Griffith's valuation of 1845 shows the church in ruins and the adjacent graveyard (<http://thecullenaghmountainproject.files.wordpress.com/2009/12/fig-4.jpg>)



Figure 7.3 Cremorgan on Valuation Office 6" plan, c. 1845

The graveyard surrounding the church is defined by a stone wall which retains the earlier bank and the site is quite overgrown with brambles and mature yew trees. A gated entrance and stile to the west does not appear to relate to the formal tree-lined entrance from the south, as depicted on the nineteenth-century cartography. The graveyard was the burial place of the O'Mores of Cremorgan (Comerford 1886, vol. 3, 375) however the legible gravestones all post-date 1700. In 1616 a rector named Thomas Haslam was recorded as a reading minister with a residence. The church and its chancel were then in good repair and furnished with books (O'Hanlon and O'Leary 1907, vol. 1, 246) (Cullenagh Community Group, 28).

The O'More's of Cremorgan (Cullenagh Community Group, 2011, 68-72)

The departure of O'Neill and the other Gaelic chieftains in 1607 consolidated politically the initial plantation schemes in Leix and Offaly and instigated the more enduring Ulster Plantation in 1612. One of the principal beneficiaries in Laois was that branch of the O'Mores descended from Mortagh Óg, who had

received church lands at Raheenduff and Cremorgan after the initial plantation. His son Lisagh was granted the estate on his father's death, but on joining his cousin's rebellion, they were attainted and outlawed and the estate forfeited to the Crown (Bewley, E.T. 1905, 'Notes on an Old Pedigree of the O'More Family of Leix' in the *Journal of the Royal Society of Antiquaries of Ireland*, vol. xv (fifth series), 53-60). At an inquisition taken at Maryborough in April 1628, confirmed the 1613 grant to sir Richard Greham of 'the town and land of Rahinduff, comprising six messuages and 71 acres; in Cremorgan (alias Clomorgan), 80 acres of arable land and 10 of brushwood and moor'. Richard died in November 1626 and his son Thomas inherited the estate. The 1659 census records Christopher Barrington, gentleman as the titleholder at Cremorgan (where Francis Barington [*sic*] Esq. and Allexander Barington [*sic*], gentleman are listed as titleholders at Cullenagh). Cremorgan then had then a population of two English and thirty-one Irish.

It is difficult to establish when the O'Mores came back to the lands and indeed their exact relationship to Mortagh Óg, however they were resident in Cremorgan by the early eighteenth century and were responsible for the erection of *Cremorgan House* and the subsequent development of the estate.

Cremorgan Demesne is mapped on the 1st ed. OS map as occupying much of the townland. When the bounds of the demesne are walked today, one follows exactly the ecclesiastical boundary of the lands of *Feranoprior*, a division at least 900 years old. Evident on the mapping are several features common to estates such as this, many of which are still evident on the ground, however, the large walled garden to the rear of the house and a range of farm buildings to the north of the backfilled cellars are all that remain of the immediate built surroundings. Field survey associated with this project confirmed this also to be the case.

Cremorgan Demesne will be discussed further with regard to its surviving remains in Section 7.3.2 below.

7.3.1.1.2 Recorded Monuments

No recorded monuments occur within 1km of the proposed substation site (Figure 7.4).

7.3.1.1.3 Newly detected sites and potential sites noted on aerial photography

The proposed substation site was inspected as part of the assessment process and no new sites of archaeological potential were encountered. Aerial photographs were also consulted and again no new sites of potential were noted. Given the presence of crop marked field systems (both recorded monuments and new sites – see Section 7.3.1.2.2 and 7.3.1.2.3 below) within proximity to the substation site, it is recommended that the proposed substation site be archaeologically tested prior to the commencement of construction. The use of geophysical survey should also be considered at the earliest stage possible in order to in order to confirm whether there are any previously unknown sites of archaeological potential.

7.3.1.1.4 Construction Access Tracks and other working areas

An existing access track will be utilised as the construction access as far as the field where it is proposed to construct the substation. No impacts on Recorded Monuments, National Monuments or newly recorded cultural heritage features will occur.

7.3.1.2 Unit 2 - New connection to Coolnabacky from the existing Moneypoint-Dunstown 400kV line

7.3.1.2.1 National Monuments

An area measuring 3km from all sides of the proposed Unit 2 400kV line from Coolnabacky (Unit 1) to the existing Moneypoint-Dunstown 400kV line was considered appropriate to assess any potential visual impacts on National Monuments (Figure 7.5). Two National Monuments are located within the 3km zone from the proposed 400kV line and are outlined in Table 7.3 below (Timahoe Complex and Cremorgan Church and Graveyard). These monuments are located at a sufficient distance so as not to be negatively visually impacted by the proposed 400kV line. These monuments are described in detail in Section 7.3.1.1.1 above.

| E | N | SMRS | Townland | CLASS | OWNERSHIP | Distance to substation |
|----------|----------|--------------|-----------------|--------------|------------------|-------------------------------|
| 253570 | 190230 | LA018-031002 | TIMAHOE | CHURCH | State 114 | 2.7km |
| 253564 | 190219 | LA018-031005 | TIMAHOE | ROUND TOWER | State 114 | 2.7km |
| 251650 | 192230 | LA018-021001 | CREMORGAN | Church | Laois Co Co | 2.2km |
| 251640 | 192220 | LA018-021002 | CREMORGAN | Graveyard | Laois Co Co | 2.2km |

Table 7.3 National Monuments within 3km of the proposed 400kV Line (Unit 2)

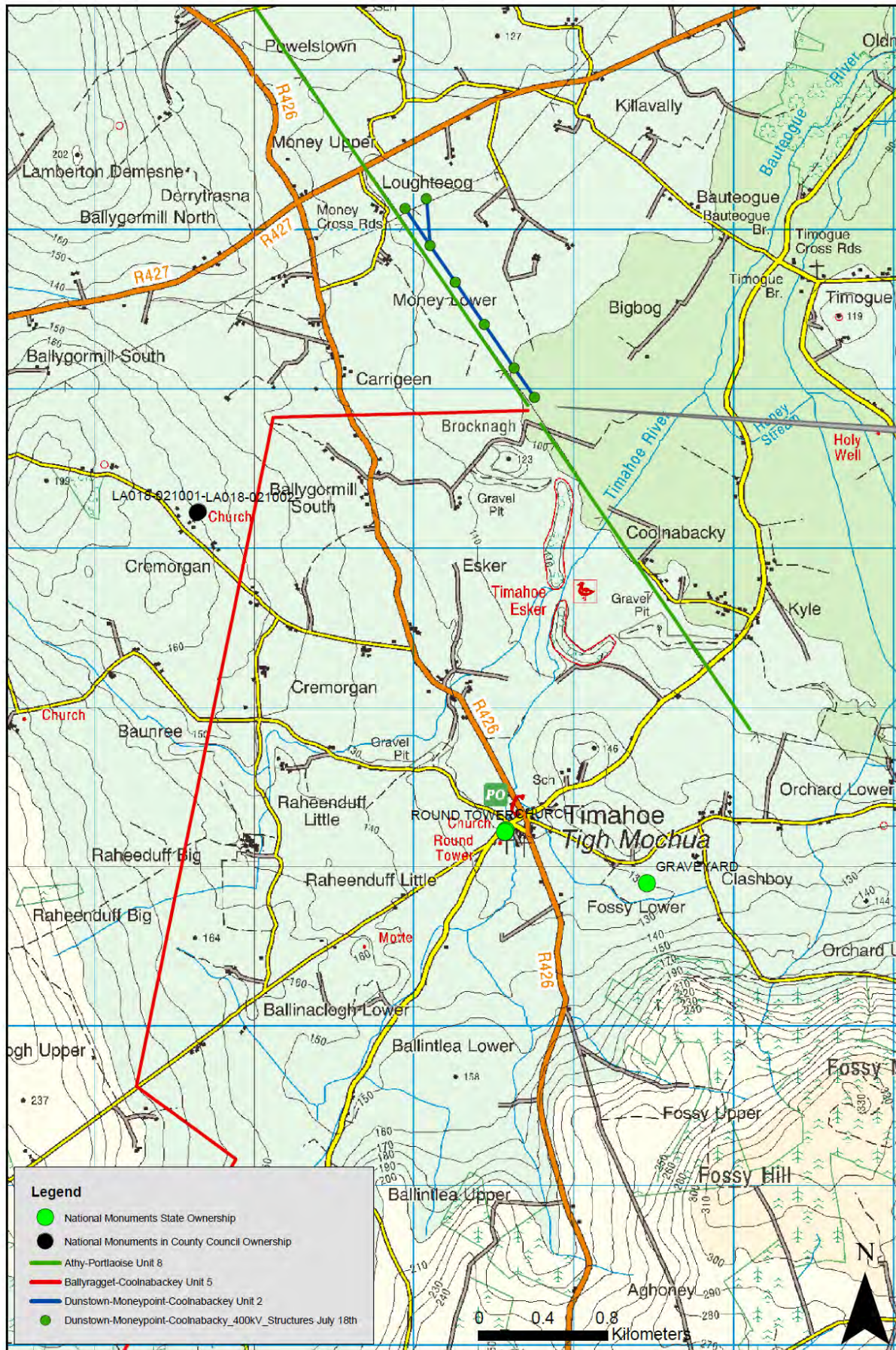


Figure 7.5 National Monuments within 3km of proposed Unit 2

Similarly as with Unit 1, the rock of Dunamase was inspected with the proposed development in mind in particular the proposed 400kV structures (Unit 2). Whilst the overall potential cumulative visual effects on the surrounding archaeological landscape may be perceived to be increased as a result of both the existing 400kV structures and the proposed structures, this is negated by the presence of natural hillocks which screen the National Monument from view.

7.3.1.2.2 Recorded Monuments

Eight Recorded Monuments are located within 1km of the proposed 400kV line (Figure 7.6). The majority (7) of the sites are located to the north of the proposed line with one monument located to the south-west of the proposed line in the townland of Ballygormil South. Five monument types are represented; Enclosures (3), Moated sites (1), Field Systems (2), Water Mill (1) and an unclassified castle (1). None of the monuments located within the relevant way leaves for the proposed 400kV line were accessed as part of the field survey as landowner permission was not granted. As none of the monuments have any above ground expression, it is considered that the use of aerial photography is more beneficial here than field inspection. Furthermore, it was through an inspection of aerial photographs in 1990 that led to their initial discovery.

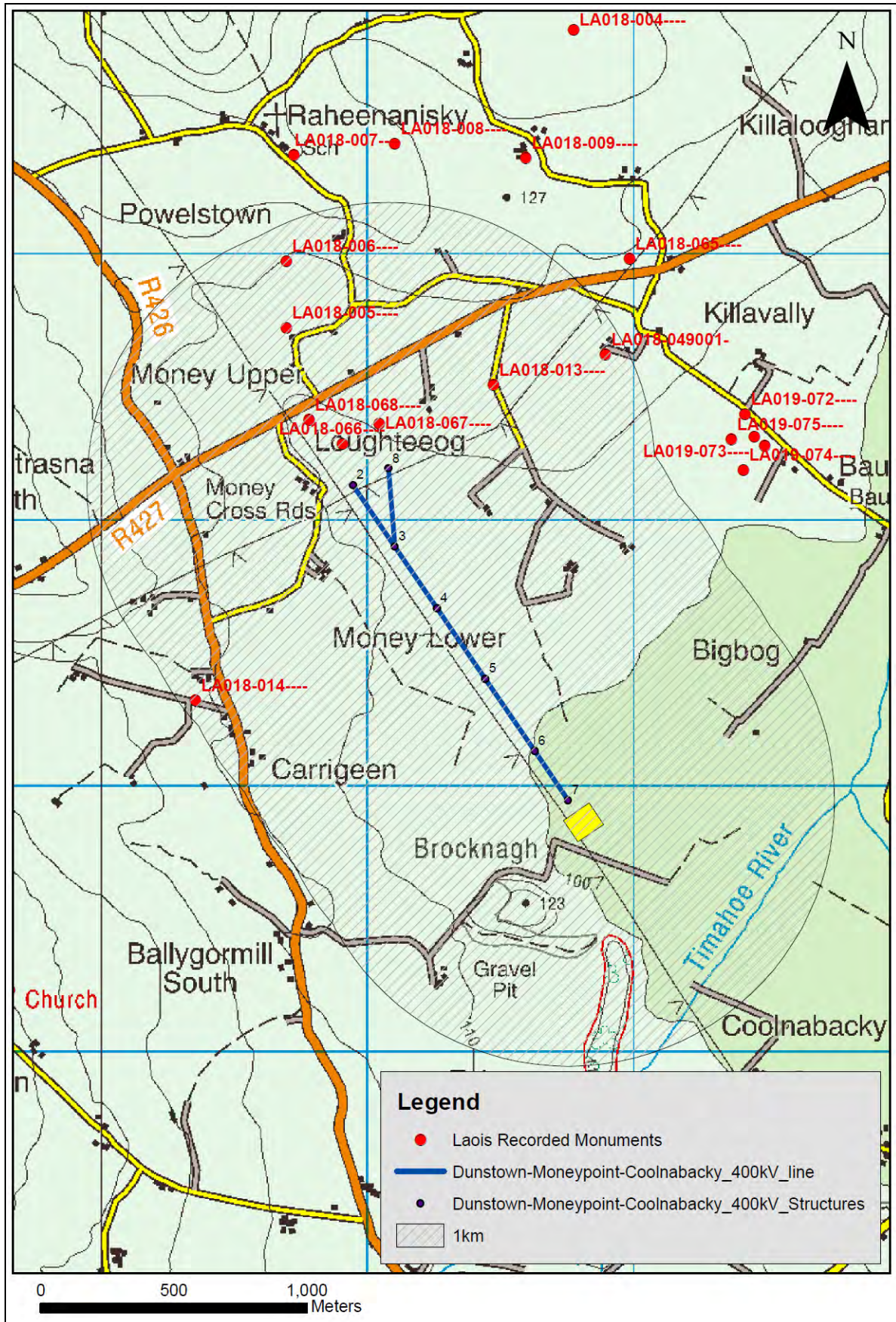


Figure 7.6 Recorded Monuments within 1km of Unit 2

Eight of the eight (100%) recorded monuments within 1km of the proposed 400kV line are levelled with no visible surface trace. No negative visual impacts are anticipated in this regard therefore. The presence of extensive field systems (cropmarks) adjacent to and to the north of the proposed 400kV line however demonstrates the occupation of the area in the early medieval and medieval periods. While none of the proposed structures are to be constructed within any identified field systems or cropmark sites, the presence of an archaeologist on site during the construction phase of the project is essential in this regard. Archaeological testing of the bases of the 400 kV masts along this route should be undertaken prior to the commencement of development.

| RMP | Easting | Northing | Description | Townland | Distance to Unit 2 |
|--------------|---------|----------|------------------------------------|-----------------------|--------------------|
| LA018-005 | 252690 | 194720 | Enclosure | POWELSTOWN | 615m |
| LA018-006 | 252690 | 194970 | Enclosure | POWELSTOWN | 812m |
| LA018-013 | 253469 | 194505 | Enclosure | LOUGHTEEOG | 338m |
| LA018-014 | 252350 | 193320 | Water mill - horizontal-wheeled | BALLYGORMILL SOUTH | 981m |
| LA018-049001 | 253890 | 194620 | Castle - unclassified | LOUGHTEEOG | 739m |
| LA018-066 | 252902 | 194284 | Moated site | LOUGHTEEOG | 167m |
| LA018-067 | 253039 | 194360 | Field system | LOUGHTEEOG | 20-25m |
| LA018-068 | 252777 | 194376 | Field system | MONEY UPPER | 290m |

Table 7.4 Recorded monuments within 1km of Unit 2

The Early Medieval Period / Medieval Period

Enclosure LA018-005

This monument has no above ground expression and is now levelled. It is described in the Archaeological Inventory and the National Monuments Service files as '*Marked on the 1841 OS 6-inch map as a circular enclosure; on the 1909 edition, hachures indicate the site from NE-S (C c. 60m). No visible surface remains*'. The outline of this monument can now be seen as a cropmark on aerial photography.

Enclosure LA018-006

This monument has no visible surface trace on the ground. It is visible as a cropmark on aerial photography however and is located in the same field as the aforementioned enclosure. It is described in the National Monuments Service files as a '*Cropmark of D-shaped enclosure visible on aerial photographs (CUCAP, AYN 36). No visible surface remains*'.

Enclosure LA018-013

This enclosure is located to the north-east of the proposed 400kV line. Again, there is no visible surface trace of the monument. The National Monument Service files describe the site as follows '*Marked on the 1841 and 1909 editions of the OS 6-inch maps; a subcircular enclosure (max. diam. c. 60m NE-SW). A road cut through the site at NNE and SE. No visible surface remains*'.

Moated Site LA018-066

This site is located to the south of the Regional Road R427 and 167m to the north of the proposed 400kV line. It is located in the same field as an extensive field system (LA018-067). It is described in the NMS files as follows; '*Aerial photograph (GB90.BL.26) shows cropmark of a rectangular enclosure with an entrance facing north-east leading into an associated rectilinear field system (LA018-067). First recorded as a positive cropmark in July 1990. Forms part of an extensive cropmark landscape. This monument is faintly visible on the background aerial photography on the ASI website*'.

Field System LA018-067

This is located in the same field as the aforementioned moated site and given its proximity, may be associated chronologically. The site is levelled and no visible surface trace survives. Given that the field system is extensive, it is likely that the entire field contains cropmarks (visible at varying times of the year). In this regard, the field system is located 20-25m from the existing Moneypoint-Dunstown line and where it is proposed to connect the new 400kV line. It is described in the NMS files as follows; '*Aerial photograph (GB90.BL.26) shows cropmarks of an extensive sequence of fosses defining a rectilinear field*'.

system integrated with a rectangular enclosure (LA018-066), probably a moated site. First recorded as a positive cropmark in July 1990. Forms part of an extensive cropmark landscape. Although some of these plough-levelled field boundaries are recorded on the OS 6-inch map, they appear clearly aligned with the potential moated site.



Figure 7.7 Moated site LA018-066 within larger extensive cropmark landscape field

Field System LA018-068

This site (field) is located adjacent to the R427 and approximately 290m from the proposed 400kV line. As with the aforementioned sites, there is no visible surface trace of this site. It is described in the NMS files as follows: *Aerial photograph (GB90.BL.26) shows cropmarks of a sequence of fosses defining a field system with curvilinear and rectilinear components, forming part of an extensive field system (LA018-067) integrated with a rectangular enclosure, probably a moated site (LA018-066). First recorded as a positive cropmark in July 1990.*

Unclassified castle (site of) LA018-04901

This castle is located to the east of the proposed 400kV line in a complex of modern farm buildings (Prospect House). There is no visible surface trace of the castle today. The NMS files describe the site as follows: *'Unlocated castle within Loughteeog mentioned in sixteenth century documents as mentioned in the History of the Queens County (O'Hanlon and O'Leary 1907, vol. 2, 451). According to present occupant of Prospect House, it is traditionally believed that the house, which was built in the 1950s when old Prospect House was knocked down, occupies the site of a castle.'*

Water Mill LA018-014

There is no visible surface trace of the mill today and the NMS files refer to the presence of the Water Mill – no further information.

7.3.1.2.3 Newly detected sites and potential sites noted on aerial photography

A number of new sites of archaeological potential were detected as a result of field assessment, local traditions/ information and aerial photography (courtesy of ESBI). The majority of the lands associated with the proposed 400kV line were not accessed (due to permission not being granted at the time of survey). Detailed aerial photographs were consulted therefore. One potential unrecorded field system was noted on aerial photography the details of which are outlined in Table 7.5 below.

| Easting | Northing | Description | Townland | Distance to Unit 2 |
|----------------|-----------------|-----------------------|-----------------|---------------------------|
| 253113 | 193022 | Possible Field System | Money Lower | 134m |

Table 7.5 New site in relation to proposed Unit 2

The distance of 134m to the proposed line (measurement from the centre line of the proposed Overhead lines) represents the distance from the outer easternmost field boundary where the field system is located to the proposed line. The proposed 400kV line will not impact directly on the field system. The occurrence of this field system (cropmark) in addition to the recorded monuments discussed above again demonstrates the archaeological potential of the area and the requirement for pre-construction archaeological testing of the proposed 400 kV structures. As none of the sites are visible above ground, the proposed line will not have a negative visual impact on these sites.

A number of other new sites such as bridges and limekilns were also detected and are discussed under Architectural Heritage (post 1700 AD) Section 7.3.2 below.

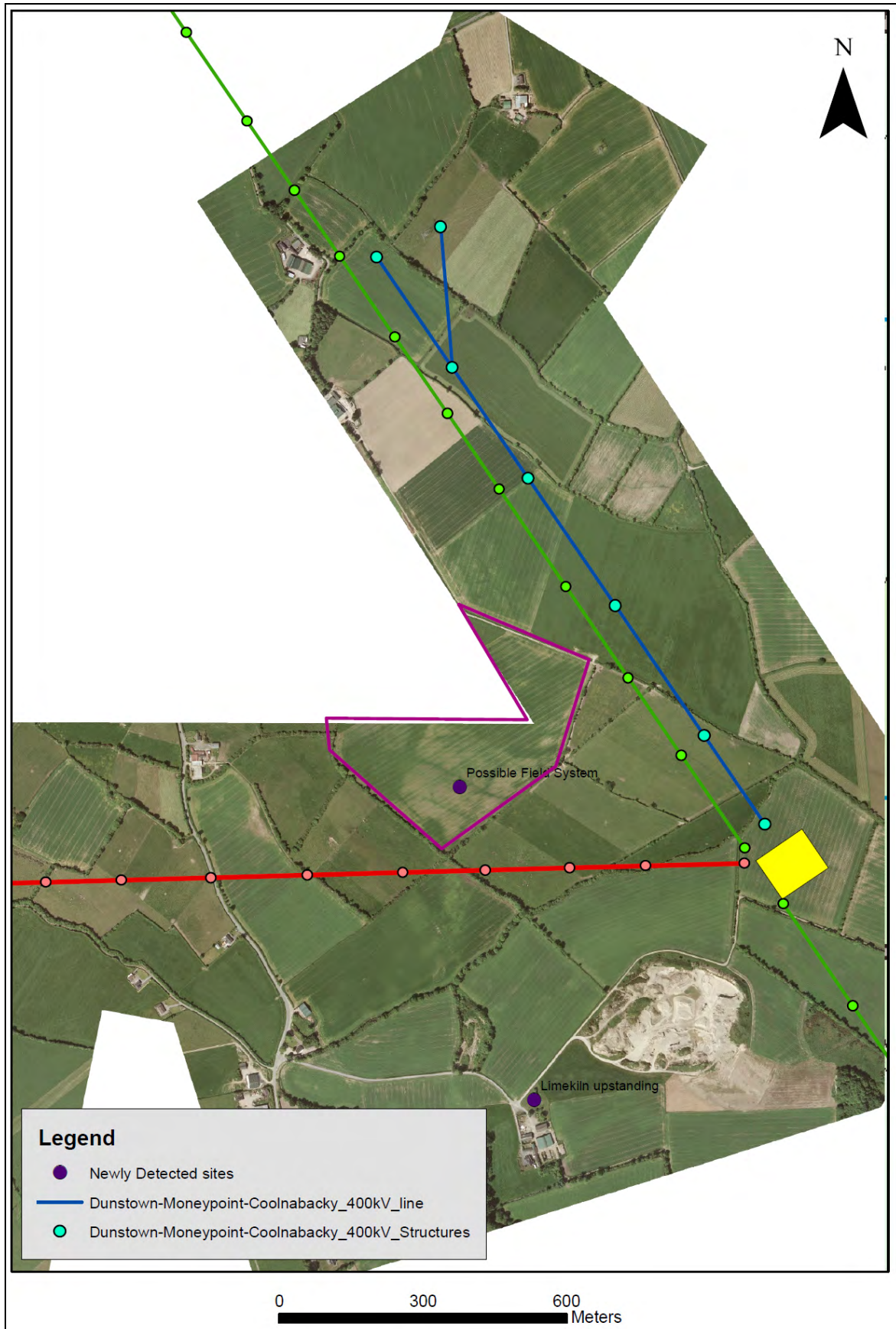


Figure 7.8 Unit 2 in relation to newly detected field system¹⁶

¹⁶ Other lines are included on this figure for ease of reference

7.3.1.2.4 Construction Access Tracks and other working areas

The main access to the proposed Unit 2 400kV structures (Structures 4-7) is via an existing track after which vehicles will traverse fields along boundaries as far as the working areas surrounding the proposed 400kV masts. The proposed construction access track to Unit 2 skirts around the northern visible extent of a newly recorded field system. As the latter portion of the access is existing, no impacts are anticipated. Access to the working areas of the proposed 400kV structures through fields is not likely to impact on any potential subsurface archaeology as the fields in this area have been intensively ploughed and farmed, using similarly sized machinery to that proposed. Access to structures 2, 3 and 8 will be from a farmyard to the north-east after which a rough track extends through a number of fields. The latter is located approximately 90m south-east of LA018-067 a levelled field system. No impacts on this monument are anticipated.

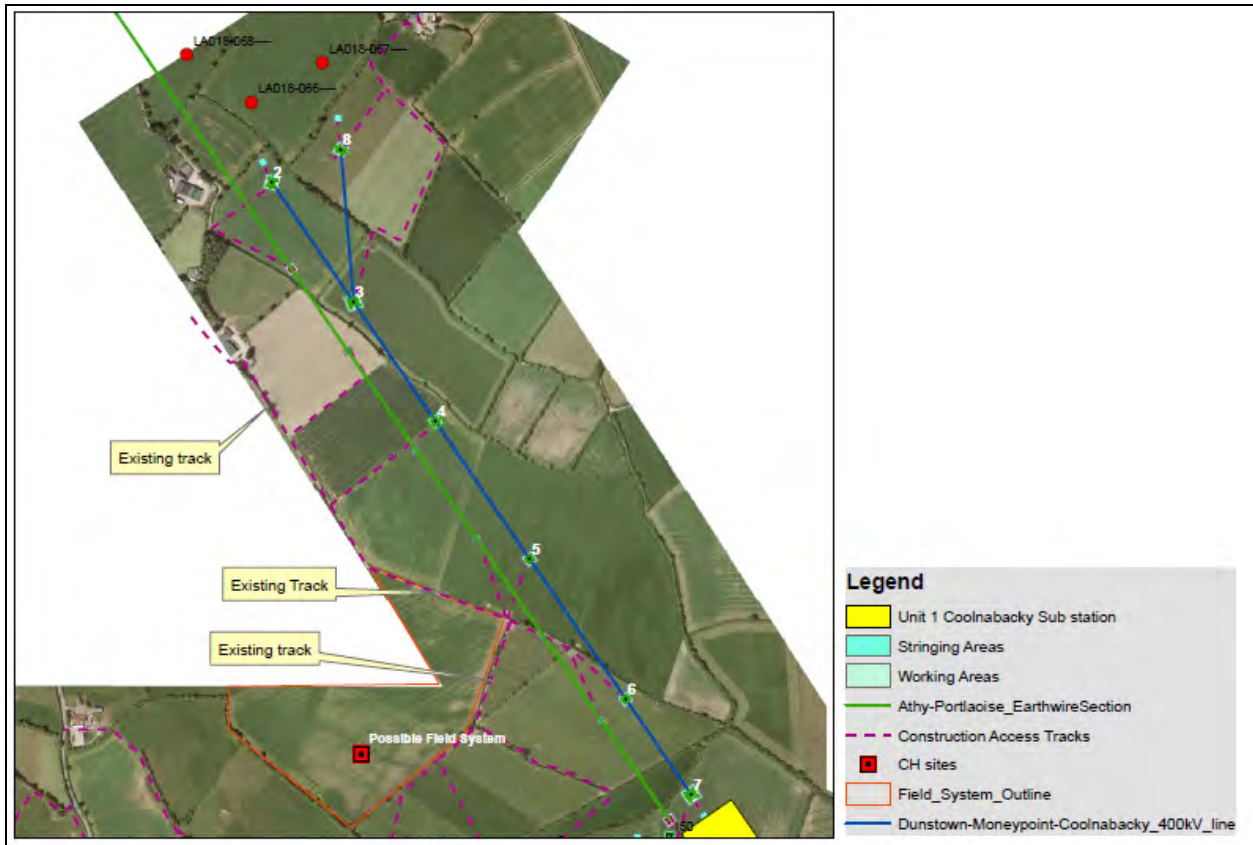


Figure 7.9 Unit 2 and proposed construction access tracks and other working areas

7.3.1.3 Unit 3 New connection to Coolnabacky from the existing Athy-Portlaoise 110kV line

This connection will be made by very short lengths (100-200m) of underground cable adjacent to the substation. Two new line cable interface masts will be required to facilitate this connection. No National Monuments or recorded monuments are located within the immediate vicinity of this short section of line. Mitigation for this section of the line will be covered under the mitigation for the proposed substation site (Unit 1) (i.e. geophysical survey, testing, monitoring etc).

7.3.1.4 Unit 4 - A new 110kV / 38kV / MV substation in Ballyragget, Co. Kilkenny

The existing 38kV Ballyragget substation will be decommissioned and replaced following completion of the replacement substation. Detailed drawings of the proposed substation can be consulted in the main planning application drawings.

7.3.1.4.1 National Monuments

Two National Monuments are located within 3km of the proposed new 110kV substation at Ballyragget (Figure 7.10 and Table 7.6). The Motte and Bailey (RMP KK005-023) is not listed on the National Monuments website listings of National Monuments but rather in the Draft Kilkenny County Council Appendix H (2008-2014) list of monuments protected by Preservation Orders (<http://www.kilkennycoco.ie/resources/eng/Services/Planning/Draft%20Development%20Plans/County/Appendices/Appendix%20H%20-%20National%20Monuments.pdf>). The Motte and Bailey is not visible from the site of the proposed substation and vice versa. Views towards the substation were assessed from the public road adjacent to the monument which demonstrated that the existing substation was not visible from this location.

| Easting | Northing | STATUS | Description | Townland | Distance to Unit 4 |
|---------|----------|----------------------------------|-------------------------------|-----------------------------|--------------------|
| 244434 | 172687 | STATE PRESERVATION ORDER | KK005-023003-Motte and Bailey | MOATPARK | 488m |
| 245413 | 169973 | Vested in County Council in 1962 | KK010-005001-Church | DONAGHMORE (Fassadinin By.) | 2.3KM |

Table 7.6 National Monuments located within 3km of proposed substation at Ballyragget

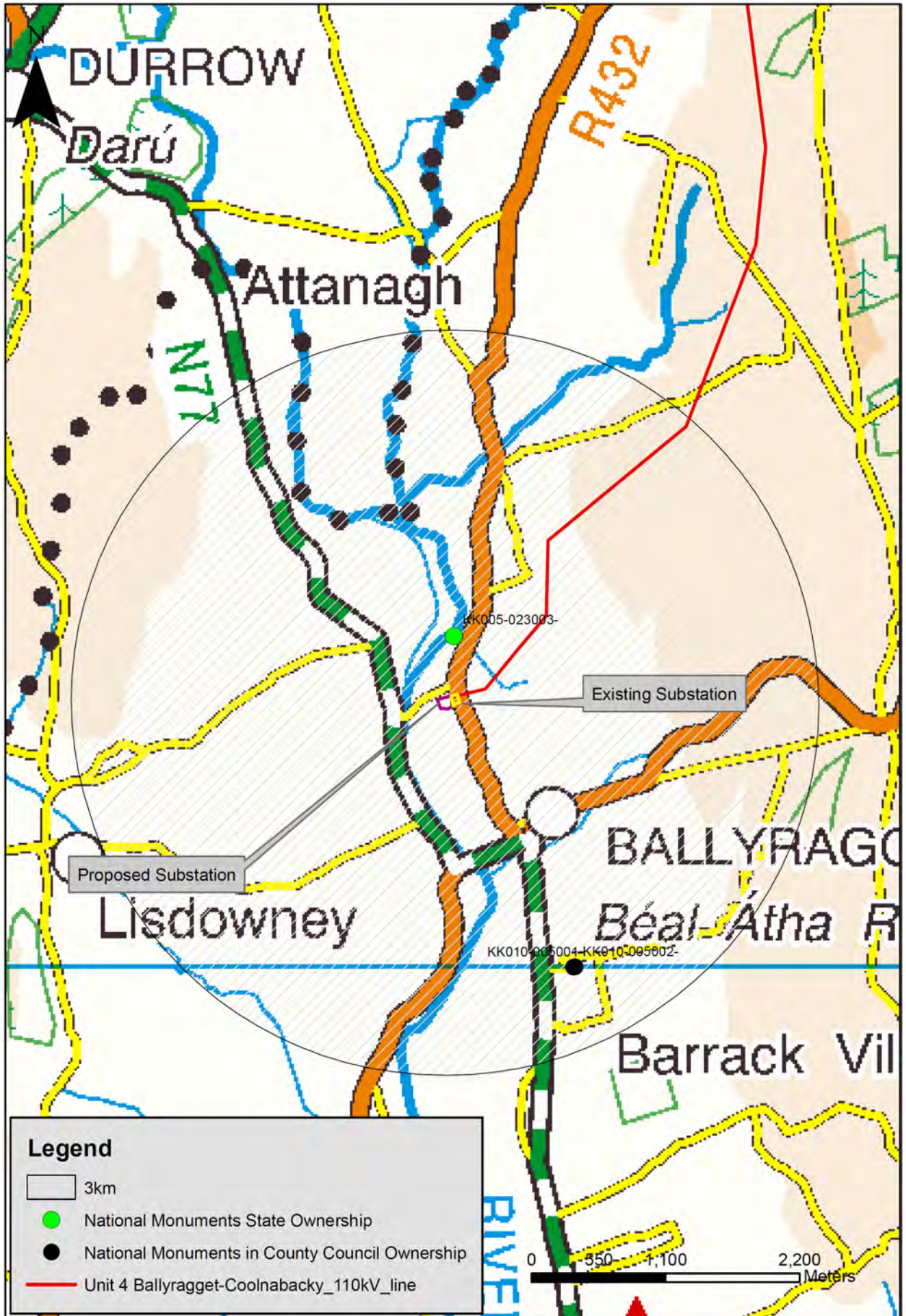


Figure 7.10 National Monuments within 3km of Unit 4

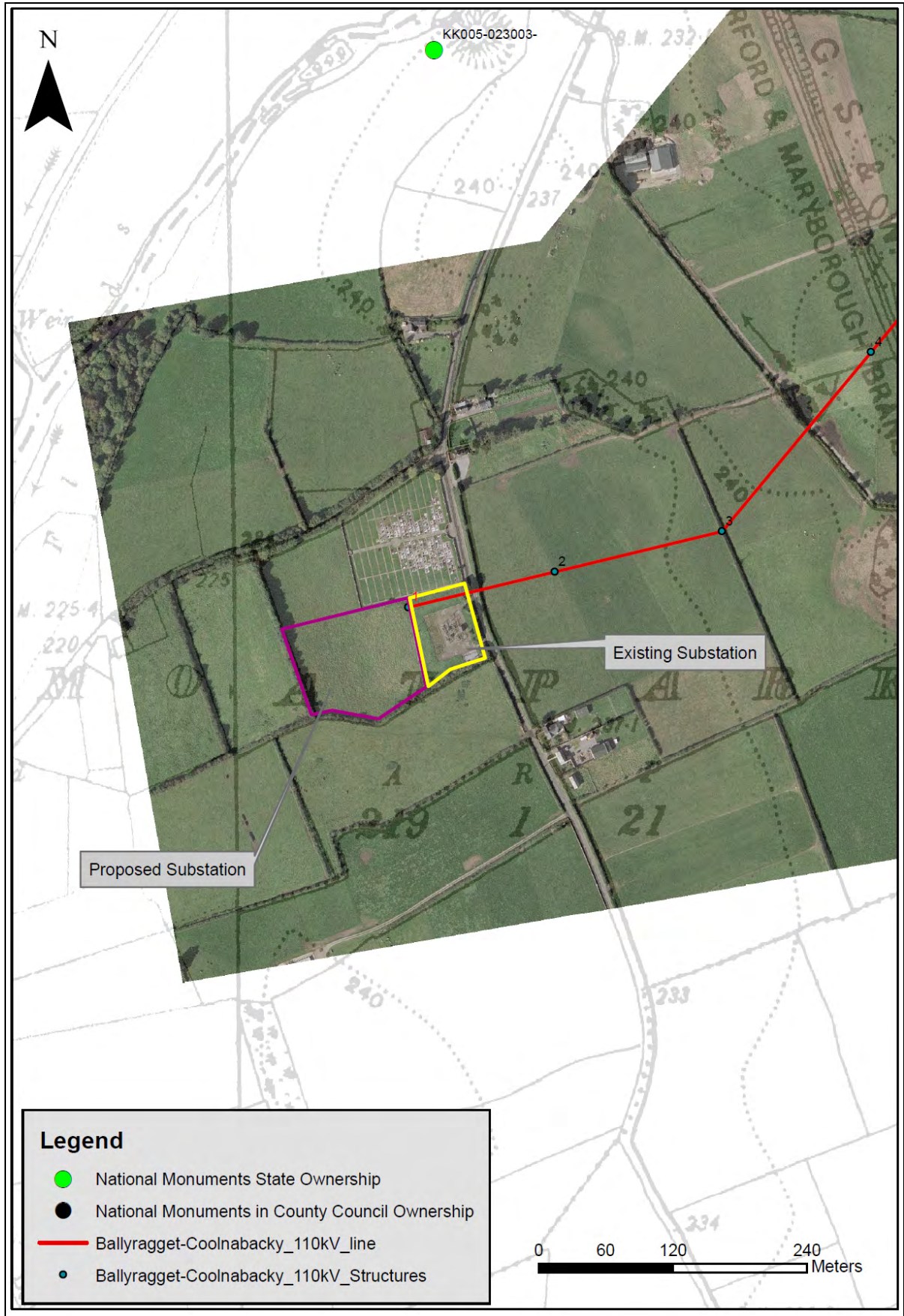


Figure 7.11 Proposed substation site



Plate 7.2 View from proposed substation site towards Motte and Bailey KK005-023 with modern graveyard in foreground looking north

The church at Donaghmore townland, south of Ballyragget village is listed in Kilkenny County Councils' database of historic graveyards and according to this source was vested in the County Council in 1962 thereby confirming its status as a National Monument. The church and graveyard is located south of Ballyragget and will not be visible from the proposed substation site.

None of the aforementioned monuments will be directly impacted by the construction of a new substation. Pre-construction archaeological testing of the substation site should be undertaken by a licensed archaeologist and a report submitted to the relevant authorities for consideration. This is in order to mitigate against the presence of potential sub-surface archaeological finds, features or deposits.

The Medieval Period

Motte and Bailey KK005-023

Mottes and baileys date to the Anglo-Norman period and were first constructed around the 12th century. Mottes consist of steep-sided, flat-topped earthen mounds which were enclosed by a fosse and external bank. A wooden tower was then constructed on top of the mound and may have been enclosed by a wooden palisade. Baileys are often found in association with mottes and were usually crescent-shaped or rectangular raised areas also enclosed by a fosse and bank. This monument is described in the National Monument Service archives files as follows: '*A large pudding bowl-shaped mound composed of sand, gravel and water rolled stone. Enclosed by the remains of a fosse and counterscarp bank. Mound (diam. at base c. 50m, diam. at summit 19.4m N-S) is quite steep and overgrown. Surface at summit has been denuded and slopes gently from S-N. Fosse (max W 4.5m) best preserved from SE-E-EW. It has been infilled from NE-SE. Field Report 1994.*

Donaghmore Church and Graveyard KK010-005

This structure is located 2.3km from the proposed substation at Ballyragget. It is a recorded monument and also a National Monument because of its Local Authority Ownership. It is listed in the database of Historic Graveyards of County Kilkenny (http://www.kilkennycoco.ie/eng/Services/Digital_Mapping/Google_Maps_Applications/Burial_Grounds/). It is described in the RMP file as follows; '*A partly pre-Norman and partly 15th century parish church (Carrigan 1905 ii, 81-5) situated roughly in centre of graveyard enclosed by 19th century wall and the interior is c.1m above surrounding fields. The earliest tombstone dates to c.1700 (RMP file) Carrigan 1905 ii, 81-5; KK Co.Co. List 1962, PH259; RCB Property List; Lyng 1946-7; Murphy 1874-9, 113-4; O Kelly 1969, 39; O'Donovan 1839, 64-7'. The ownership details are as follows: 'Vested in RCB 1879 (RCB Property List), Vested in Kilkenny County Council (KK Co.Co. List 1962, PH259)'*

7.3.1.4.2 Recorded Monuments

Eleven (11) recorded monuments are located within 1km of the proposed substation site with the nearest site being 350m to the north-west (Figure 7.12). None of the recorded monuments will be directly impacted by the construction of the proposed substation and all are located an adequate distance to avoid significant visual impacts. Furthermore, many of the sites listed in Table 7.7 are levelled with no visible surface trace.

| SMRS | Easting | Northing | Description | Distance to Substation | Townland |
|---------------|----------------|-----------------|-------------------------|-------------------------------|-----------------|
| KK004-014 | 244201 | 172916 | Enclosure | 747m | BALLYCONRA |
| KK004-021 | 244010 | 172370 | Inscribed stone | 350m | BALLYCONRA |
| KK004-024 | 243680 | 171910 | Inscribed stone | 668m | BALLYCONRA |
| KK009-014 | 244081 | 171240 | Ringfort - unclassified | 881m | PARKSGROVE |
| KK005-023001 | 244465 | 172696 | Castle - motte | 488m | MOATPARK |
| KK005-023002 | 244464 | 172697 | Castle - unclassified | 488m | MOATPARK |
| KK005-023003- | 244434 | 172687 | Chapel | 488m | MOATPARK |
| KK005-024 | 245190 | 172200 | Mound | 767m | RATHDUFF |
| KK005-094 | 244924 | 172580 | Enclosure | 644m | RATHDUFF |
| KK005-095 | 244994 | 172669 | Field system | 756m | RATHDUFF |
| KK005-096 | 245011 | 172202 | Enclosure | 592m | RATHDUFF |

Table 7.7 Recorded Monuments located within 1km of the proposed substation

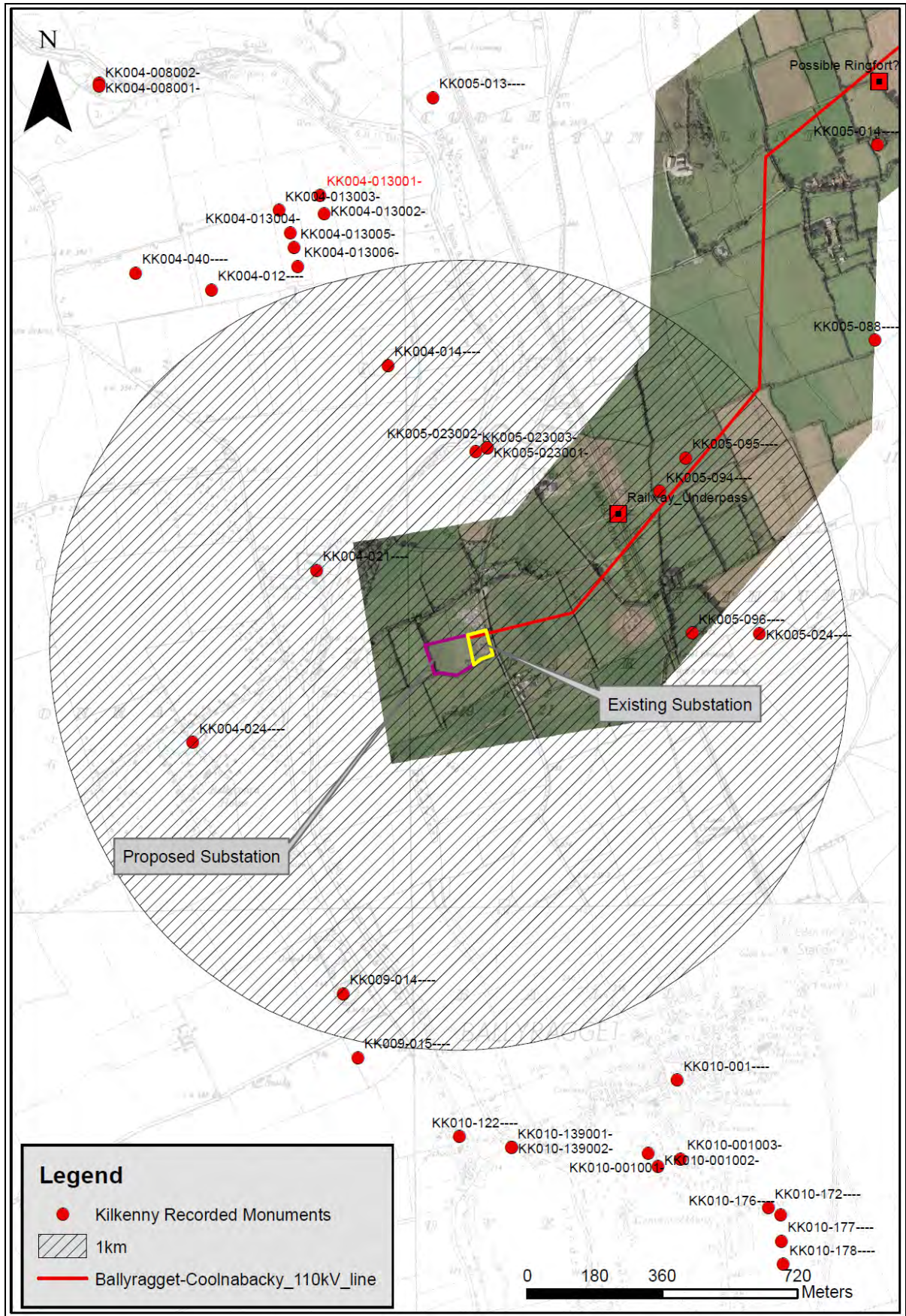


Figure 7.12 Recorded Monuments within 1km of Unit 4

The monuments are described below chronologically (information taken from NMS files).

The Prehistoric Period

Mound KK005-024. No information available in NMS file at the time of consultation. This mound is still extant and is located in a field which was under crop on the day of survey. The monument appears as a small densely overgrown mound surrounded on all sides by a crop. It is also visible on aerial photography.

Early Medieval period

Ringfort KK009-014

Ed O Flanagan Typescript 1930 page 96 932) Vol 1; There is an ancient rath in lisdowney townland and another in Parksgrove townland.

Parksgrove Visit to site 16-7-87 Victor Buckley; roughly oval area (int dia 48m E-w, 39m N-S) enclosed by slight traces of lip bank at NW-N-E, probably widened. No visible internal features.

Enclosure KK004-014

Irregular sub-rectilinear enclosure with entrance at the E, showing on aerial photograph. No visible surface trace.

Enclosure KK005-094 (information obtained from files NMS 28/10/11)

'Gillian Barrett. Aerial Photography Collection Report. Aerial photograph (GB90.BM.35) shows cropmark of a curvilinear enclosure defined by a fosse with an entrance facing east; a field system is located in close proximity. Condition of monument: Plough levelled. Recorded first in 1990. While this monument is levelled leaving no surface trace, the measurements of the monument were not described in the file. The full extent of the monument on the ground therefore is not known. No impacts on the monument will occur as a result of the construction of the substation however.

Field System KK005-095 (information taken from files NMS 28/10/11)

'Gillian Barrett Aerial Photograph Collection Report. Aerial photo GB90.BM.35) shows cropmarks of a sequence of fosses indicative of a field system probably associated with the adjacent enclosure. Plough levelled. Boundaries are tangential to the modern field boundaries recorded in 1990. This monument is also levelled and again the full extent of the site was not described in the NMS file. The aerial photograph was not available in the file for consultation.

Enclosure KK005-096

Aerial photograph shows cropmark of incomplete curvilinear enclosure defined by fosse. Monument is plough levelled. The 'site of' this recorded monument was visited as part of the assessment. No visible surface trace of this monument survives and it is located in a field which was under crop on the day of survey.

The Medieval Period

Motte KK05-023/01 (also a National Monument see Section 7.3.1.4.1 above)

A large pudding bowl-shaped mound composed of sand, gravel and water rolled stone. Enclosed by the remains of a fosse and counterscarp bank. Mound (diam. at base c. 50m, diam. at summit 19.4m N-S) is quite steep and overgrown. Surface at summit has been denuded and slopes gently from S-N. Fosse (max W 4.5m) best preserved from SE-E-EW. It has been infilled from NE-SE. Field Report 1994.

Castle (site) KK05-023/02

No structural remains of castle visible at ground level.

Chapel (site) KK05-023/03. No information/unlocated.

Inscribed Stones KK004-021.

Robbed church stone. No further information.

Inscribed Stone KK004-024

KK004-024

Extract from Carrigan 1905 gives following details; Three inscribed stones fixed to the walls of Ballyconra House. The lintel over the front entrance reads 'this frovntispiece was set vp att ballen by R.L.V. mtgaret AD 1647 & Removed hether by his great grandson E.LV. mtgaret AD 1724'

Over the same door slab is the mountgarret coat of arms with the motto 'depressvs extollor' and underneath 'edmundvs & elisabetha Vice/comites de movntgarret has/ aedes posvere, AD 1735'

Over the back entrance is a slab with shield, arms of the Fitzpatricks and 'EM 15 88GFM'

-noted at end of page ...pre 1700s house or possible castle site- KK004:033- site of castle on down survey map, may be mismarked and refer to the site of this house.

Notes on visit read 18th century house, no pre 1700s fabric apart from above noted inscribed stones. They are not in their original positions, source unknown. House now offices of Avonmore creamery.

Carrigan 1905 317-9

O Kelly 1969 53 OS letters Vol 1 page 977. Reference to castle.

The survival rate of the monuments described above is low with many having no visible surface trace. Prior to the commencement of development, archaeological testing should be undertaken in the proposed substation site. The results of such confirmatory testing should be submitted to Kilkenny County Council and the Dept. of Arts, Heritage and the Gaeltacht [DAHG] for their information.

7.3.1.4.3 Newly Detected sites

No new archaeological sites of potential were encountered during field inspection associated with the proposed substation. Furthermore, aerial photographs did not reveal any cropmark features on the site.

7.3.1.4.4 Construction Access tracks and other working areas

Access to the proposed new substation at Ballyragget and associated working areas for proposed structures will be via the existing substation site. The access track does not traverse any recorded monuments, newly recorded sites or National Monuments. Furthermore, the proposed guarding areas are not located within close proximity to any cultural heritage features.

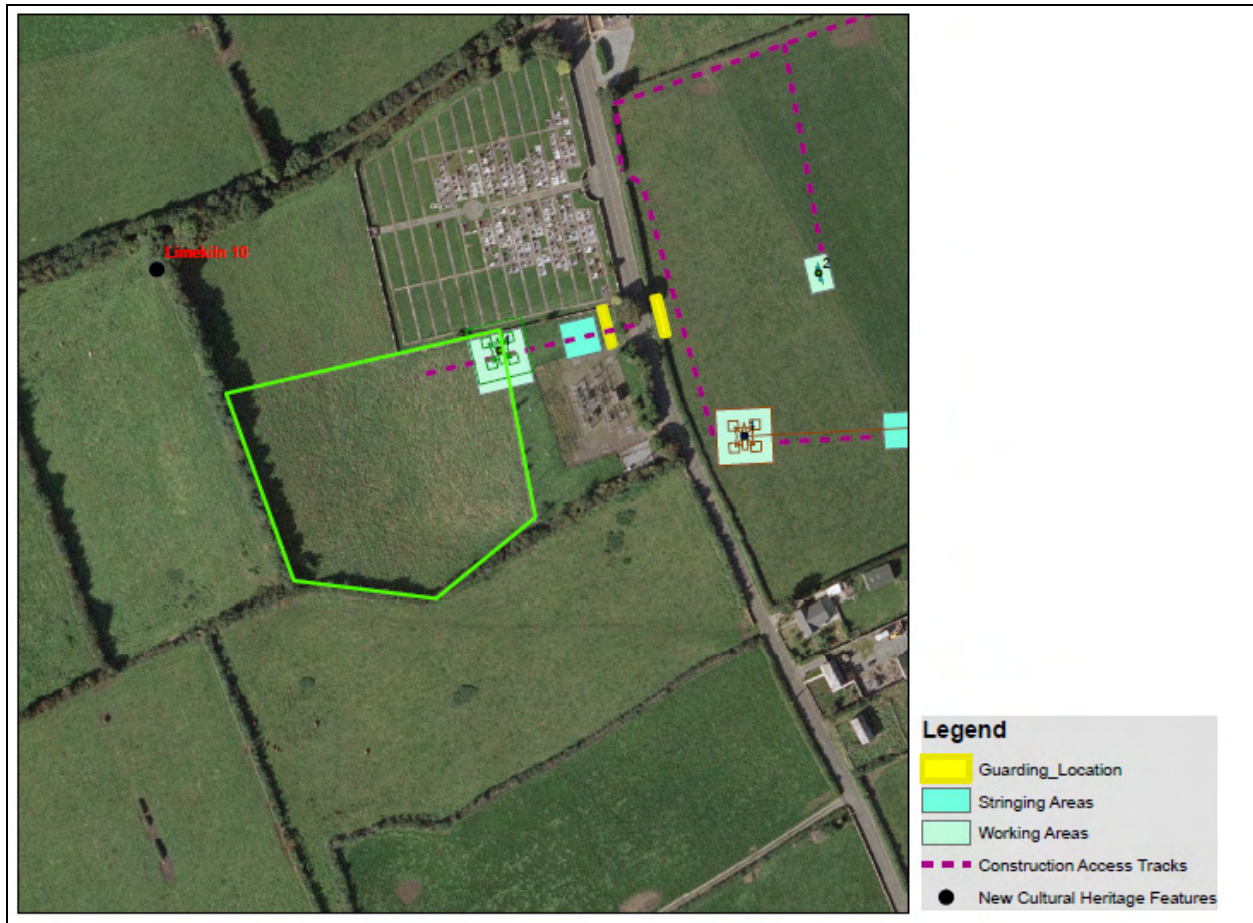


Figure 7.13 Unit 4 substation and proposed construction access tracks and other working areas

7.3.1.5 Unit 5 - A new 110kV overhead line between Ballyragget and Coolnabacky

This section of the proposed development will be approximately 26km long with the connections at each station end being made by short lengths (<200m) of underground cable. A new line cable interface mast will be required at either end to facilitate these connections. The proposed line route was inspected by both field assessment and inspection of high resolution aerial photographs. Access was not permitted to some lands along this route and, therefore, a portion of the line remains un-surveyed.

7.3.1.5.1 National Monuments

Six National Monuments are located within 3km of the proposed new overhead line between Coolnabacky and Ballyragget (Figure 7.14). Two of the monuments are in State ownership (Timahoe Round Tower and Fossy Lower Graveyard). One monument (Moatpark Motte) is listed in the Kilkenny Draft County Development Plan (2008-14, Appendix H) as being under Preservation Order. This list is not provided in the main 2008-2014 Development Plan however. The remaining three monuments are recorded monuments which are likely to be owned by the Local Authority (Cremorgan Church and Graveyard and Kilcronan Church and Graveyard, Co. Laois and Donaghmore Church and Graveyard, Co. Kilkenny (see Table 7.8). Direct impacts and potential visual impacts were assessed. Visual impact is assessed by visiting the site of the monument in question to establish if any views of the proposed line are possible. Topography and distance are also taken into account.

| Easting | Northing | RMP | TLAND_NAME | CLASS | ID | Distance from line |
|----------------|-----------------|---------------|-------------------|----------------|-----------|---------------------------|
| 251650 | 192230 | LA018-021001- | CREMORGAN | Church | N/A | 330m |
| 251640 | 192220 | LA018-021002- | CREMORGAN | Graveyard | N/A | 330m |
| 254453 | 189898 | LA019-016001- | FOSSY LOWER | Graveyard | 114 | 2.9km |
| 253570 | 190230 | LA018-031002- | TIMAHOE | Church | 114 | 1.9km |
| 253564 | 190219 | LA018-031005- | TIMAHOE | Round Tower | 114 | 1.9km |
| 245413 | 169973 | KK010-005001- | DONAGHMORE | Church | N/A | 2.4km |
| 245426 | 169977 | KK010-005002- | DONAGHMORE | Graveyard | N/A | 2.4km |
| 247329 | 179715 | LA030-026---- | KILCRONAN | Church | | 350m |
| 247330 | 179710 | LA030-026001- | KILCRONAN | Graveyard | | 350m |
| 244465 | 172696 | KK005-023001 | MOATPARK | Castle - motte | N/A | 470m |

Table 7.8 National monuments located within 3km of Unit 5

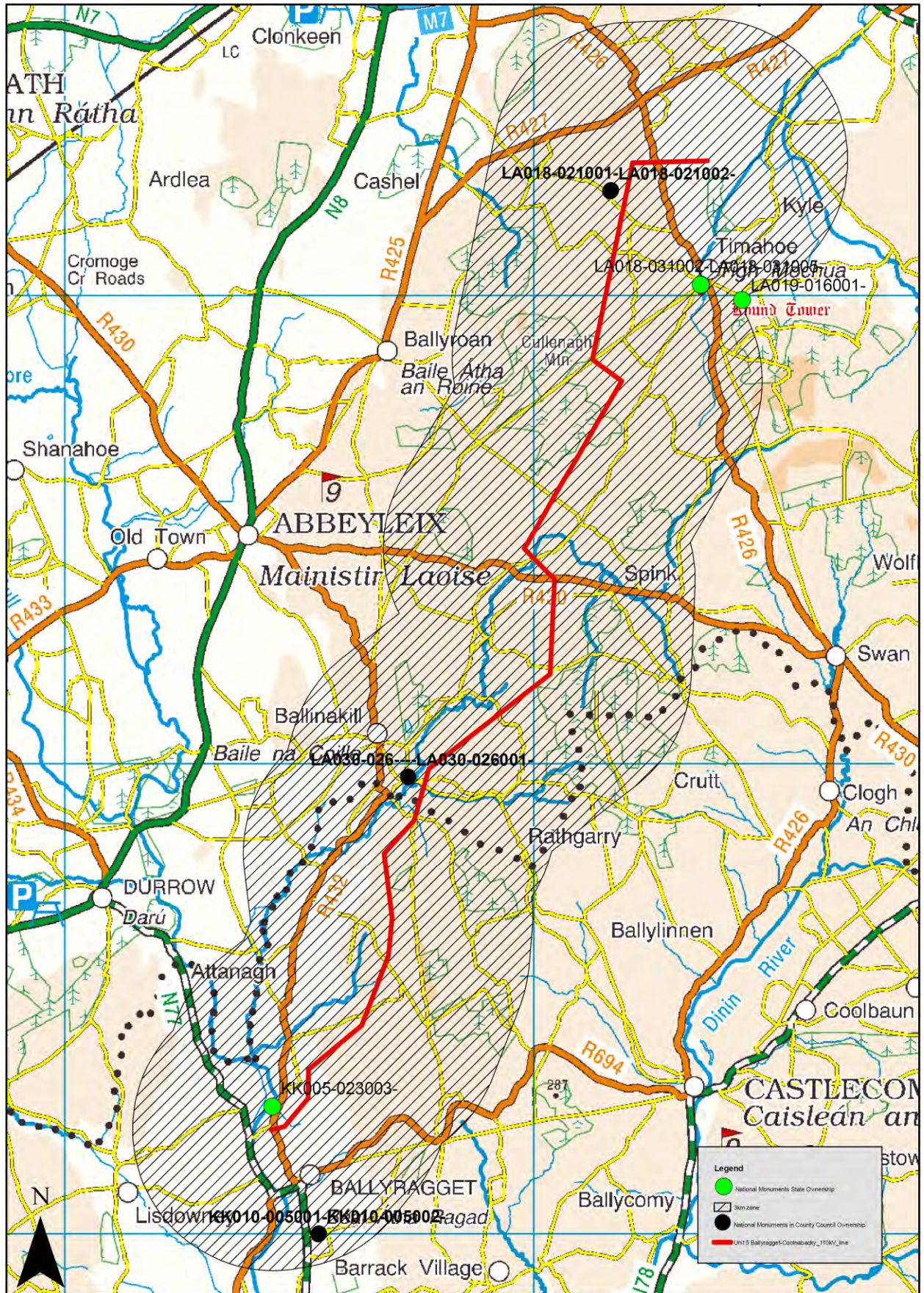


Figure 7.14 National monuments within 3km of Unit 5

Cremorgan Church and Graveyard LA018-021.

This monument has been described in detail in Section 7.3.1.1.1 above regarding its surviving remains and National Monument status. With regard to its location in relation to Unit 5, it is situated in a green field of pasture. At the time of the site visit, the exterior and interior of the monument was cattle trodden with some of the west side of the enclosing graveyard wall collapsed. The church structure itself is in danger of collapse and is very overgrown with vegetation. The church and graveyard is poorly maintained and is not accessible to the public. The original entrance to the site, as shown on the 1st Edition OS map, is now occupied by modern agricultural buildings. Traversing a green field is now the only means of access to the monument. The proposed line measures 330m from the graveyard wall (east). The nearest structure consists of a wooden poleset which measures 345m to the outer portion of the monument. The area between the church and graveyard and the nearest proposed poleset (BC138) is relatively flat topographically with few geographical features between the line and the church. It is likely that the poleset and the line will be inter-visible. Significant visual impacts on the structure are not likely however given the distance between the two. The proposed line traverses a corner of the adjacent field and the remainder of the line will extend further away from the church and graveyard.



Plate 7.3 View from eastern graveyard wall of Cremorgan Church and Graveyard looking north-east towards area of proposed poleset BC138. The line will cross the NE corner of the field (indicated by arrow)

Fossy Lower Graveyard LA019-016001

This structure has also been described in Section 7.3.1.1.1 above in relation to Unit 1. The site is located just under 3km from the proposed overhead line with the nearest angle mast being located in excess of 3km from the monument. No impacts are anticipated in this regard.

Timahoe Round Tower LA018-031

This structure has also been described in Section 7.3.1.1.1 above. The overhead line measures 1.9km from the round tower with the nearest angle mast structure (BC117) measuring 2.8km. Timahoe round

tower is a much visited site and while the tower interior is not accessible to the public, views of the structure are currently enjoyed from the base of the tower. The proposed overhead line (Unit 5) will not be visible from the monument itself (interaction with Section 6 Landscape and Visual Impact).

Donaghmore Church and Graveyard KK010-005

This structure is located 2.4km from the proposed Unit 5 section of the reinforcement project. It is a recorded monument and also a National Monument. It is listed in the database of Historic Graveyards of County Kilkenny

(http://www.kilkennycoco.ie/eng/Services/Digital_Mapping/Google_Maps_Applications/Burial_Grounds/).

It is described in the RMP file as follows; '*A partly pre-Norman and partly 15th century parish church (Carrigan 1905 ii, 81-5) situated roughly in centre of graveyard enclosed by 19th century wall and the interior is c.1m above surrounding fields. The earliest tombstone dates to c.1700* (RMP file) Carrigan 1905 ii, 81-5; KK Co.Co. List 1962, PH259; RCB Property List; Lyng 1946-7; Murphy 1874-9, 113-4; O Kelly 1969, 39; O Donovan 1839, 64-7'. The ownership details are as follows: 'Vested in RCB 1879 (RCB Property List), Vested in Kilkenny County Council (KK Co.Co. List 1962, PH259)'. No impacts are anticipated either direct or indirect, given the distance between the monument and the proposed line route.

Kilcronan Church and Graveyard LA030-026

On the W bank of the Owenbeg River. A monastery is said to have been founded here by St Cronan (O'Byrne 1856, 50-1). Situated on a ridge in NW corner of graveyard (LA030-026001). The church (dims. 12.8m x 5.18m) was almost levelled by 1907 but traces of wall foundations were visible; part of the graveyard was washed away by flood waters (O'Hanlon and O'Leary 1907, vol. 1, 235). Only a portion of the W gable (H c. 1.3m) and E end of the S wall now remain. No architectural features visible. Headstones in the surrounding sub-triangular graveyard postdate 1700.

This structure is a recorded monument and **may be** in the ownership of Laois County Council. The heritage officer has been contacted in this regard to establish its National Monuments Status / Local Authority Ownership. It is situated to the north-west of the proposed line with the nearest poleset measuring 352m (BC51) to the outer wall of the graveyard. It is likely given its location on high ground that the church and graveyard may overlook the proposed overhead line to the south-east. No significant visual impacts will take place however and no structures are proposed to be placed within close proximity or adjacent to the monument.

Moatpark Motte KK005-023001

This motte has been described in Section 7.3.1.4.1 above. The motte and bailey are somewhat overgrown but extant. The monument is located c. 470m from the nearest proposed angle mast (BC3) and will not be significantly impacted. It is possible that the proposed overhead line may be visible at a distance from the monument itself.

7.3.1.5.2 Recorded Monuments

Recorded monuments located adjacent to the proposed line (Unit 5) are discussed here (7). Some monuments could not be visited due to access issues however. One of the recorded monuments consists of a complex of monuments (LA001-004-001-009) located at Loughill townland.

| RMP | Easting | Northing | Description | Townland | Distance to line |
|--------------|---------|----------|--------------------------------|------------------------------|--|
| LA024-025 | 251680 | 187550 | Enclosure | GARRYGLASS | 135m to BC109 from centre point of site (no visible surface trace). Construction Access track 49m to enclosure centre point. |
| LA030-016 | 250550 | 182540 | Enclosure | KNOCKARDAGUR | 143m (no visible surface trace) |
| KK001-004001 | 247607 | 178746 | Church | LOUGHILL | 152m to BC46 angle mast |
| KK001-004002 | 247611 | 178740 | Graveyard | LOUGHILL | 157m to BC46 angle mast |
| KK001-004003 | 247514 | 178734 | Religious house - unclassified | LOUGHILL | 75m to BC46 angle mast |
| KK001-004004 | 247732 | 178536 | Religious house - unclassified | LOUGHILL | 369m to BC46 angle mast |
| KK001-004005 | 247590 | 178670 | Mill - unclassified | LOUGHILL | 174m to BC46 angle mast |
| KK001-004006 | 247603 | 178635 | Enclosure | LOUGHILL | 207m to BC46 angle mast |
| KK001-004007 | 247590 | 178660 | Clochan | LOUGHILL | 181m to BC46 angle mast |
| KK001-004008 | 247580 | 178670 | Road - road/trackway | LOUGHILL | 168m to BC46 angle mast |
| KK001-004009 | 247601 | 178662 | Earthwork | LOUGHILL | 189m to BC46 angle mast |
| KK005-016 | 246430 | 174190 | Field System | BALLYMARTIN (FASSADININ BY.) | 22m to BC18 angle mast |
| KK005-014 | 245505 | 173504 | Ringfort - Rath | TINNALINTAN | 129m to line. 153m to poleset BC11. |
| KK005-094 | 244924 | 172580 | Enclosure | RATHDUFF (FASSADININ BY.) | BC5 pole 39m to centre of enclosure. Extent of monument not known. |
| KK005-095 | 244994 | 172669 | Field System | RATHDUFF (FASSADININ BY.) | Construction access track between BC5 and BC6 traverses levelled field system. Extent of field system not known. Line traverses field. |

Table 7.9 Recorded monuments adjacent to Unit 5

The Early Medieval Period

Enclosure LA024-025

Cropmark of sub-circular enclosure visible on aerial photographs (GSI, S 143-4). No visible surface remains. This site was visited as part of the field survey and as the MNS files describe, there is no visible surface trace of the monument remaining. The site is now under pasture and was being grazed by cattle on the day of survey. The proposed overhead line will not impact directly on this monument. The location

of proposed construction access tracks should be identified in a manner which avoids traversing the site of the monument.

Enclosure LA030-016

This monument consists of a levelled sub-circular enclosure, the extent of which is not visible on the ground. The proposed overhead line measures 161m to the centre point of the monument and the nearest poleset (BC75) measures 170m to the centre point of the monument. The outer extents of the monument, although not visible, are closer to the proposed line and associated polesets. This monument was not visited as part of the assessment as access was not granted by the landowner to the land. It is described in the NMS files as follows: '*Part of a large sub-circular enclosure visible on aerial photographs (GSI, S 67-8). No visible surface remains*'. The enclosure is not marked on either the 1st or 2nd edition OS mapping. The overhead line is located an adequate distance from the site of the enclosure, however, archaeological monitoring of the construction of BC75 and BC76 should take place.

Early ecclesiastical complex KK001-004 - 001-009

This recorded monument contains a number of sites and is located in Loughgill townland, Co. Kilkenny. The site was visited as part of the field survey as the landowner granted access. The landowner also warned of the presence of a bull in the field therefore only a portion of the site was examined. All attempts were made to examine the remainder of the sites from both the public road to the north and the road to the west. None were visible however, due to the dense overgrowth and trees within the site and also possibly due to the poor survival rate of the monuments themselves. The nearest proposed structure BC46 angle mast is located to the west of this complex in a large open field on the western side of the public road (Cromwell's Road). It is possible that a portion of the angle mast will be visible from some of the archaeological monuments. This is not considered to be a significant impact however given the location of the complex within dense overgrowth. The NMS archive was visited in 2010 and 2011 to obtain information on the sites which are described therein as follows:

Church KK001-004/01 Loughgill townland

NGR-247607/178746

2010 file consultation - Small pre-Norman building in ruins. Very little left but the east wall has become very overgrown. Field Report 1942.

2011 info - Rect. Structure (L. 19m; W. 9m) aligned E-W consisting of undivided Nave and Chancel built of uncoursed rubble masonry. Section of large round-headed window in E gable. Located in overgrown featureless graveyard (Carrigan 1905, 2, 115-17).

Graveyard KK001-004/02 Loughgill townland

NGR-247611/178740

According to a report in 1905 the graveyard had for a long time been unused and only consisted of a few, rough un-inscribed headstones.

Nunnery Site KK001-004/03 Loughgill townland

NGR-247514/178734

2010 file consultation - Located about 80 yards (73.152mts) E of church KK001-004/01. In ruins, part of a stone and mortar gable beside a fosse, hidden by trees. Field Report 1942.

2011 file consultation - Religious House - unclassified. (Nunnery in ruins – OS latest edition). Low irregular earthworks mark the site of a reputed Nunnery. Not discernible as forming any pattern of foundations (Carrigan 1905, 2, 115-17).

Abbey Site KK001-004/04 Loughgill townland

NGR-247732/178536

2010 file consultation - In ruins, only hillocks and mounds remaining.

2011 file consultation - Religious House – unclassified. (OS latest description Abbey in ruins). Recorded as Early Abbey in the 'Monasticon' (Carrigan 1905, 2, 115-17). Not visible at ground level.

Miscellaneous KK001-004/05 Loughgill townland

NGR-247590/178670

No information in the NMS file.

Enclosure KK001-004/06 Loughgill townland
NGR-247590/178670
No information in the file.

Clochan KK001-004/07 Loughgill townland
NGR-247590/178660
No information in the file.

Road KK001-004/08 Loughgill townland
NGR-247580/178670
No information in the file.

Earthwork KK001-004/09 Loughgill townland
NGR-247601/178662
No information in the file.

Field System KK005-016

This field system is located in Ballymartin townland, Co. Kilkenny. The site was visited as part of the archaeological survey associated with the assessment process and no visible surface trace of the monument survives. The proposed angle mast BC18 was designed to be positioned on the north-western boundary of the field. This was then moved further to the north to avoid impacting on the boundary of the field (which may be part of the actual monument). The NMS files consulted in 2010 describe the monument as follows: '*Field System (site), only visible on aerial photograph*'. When consulted in 2011 it was described as follows: '*Field system. Aerial photo GSAP 43:10 shows cropmarks forming field system running north south. Does not appear to extend to north-west corner*'. Potential direct physical impacts on the monument have been avoided through the re-positioning of angle mast BC18 further to the north (Figure 7.15). Given the presence of the adjacent field system an archaeologist should monitor construction works associated with the angle mast in this location.

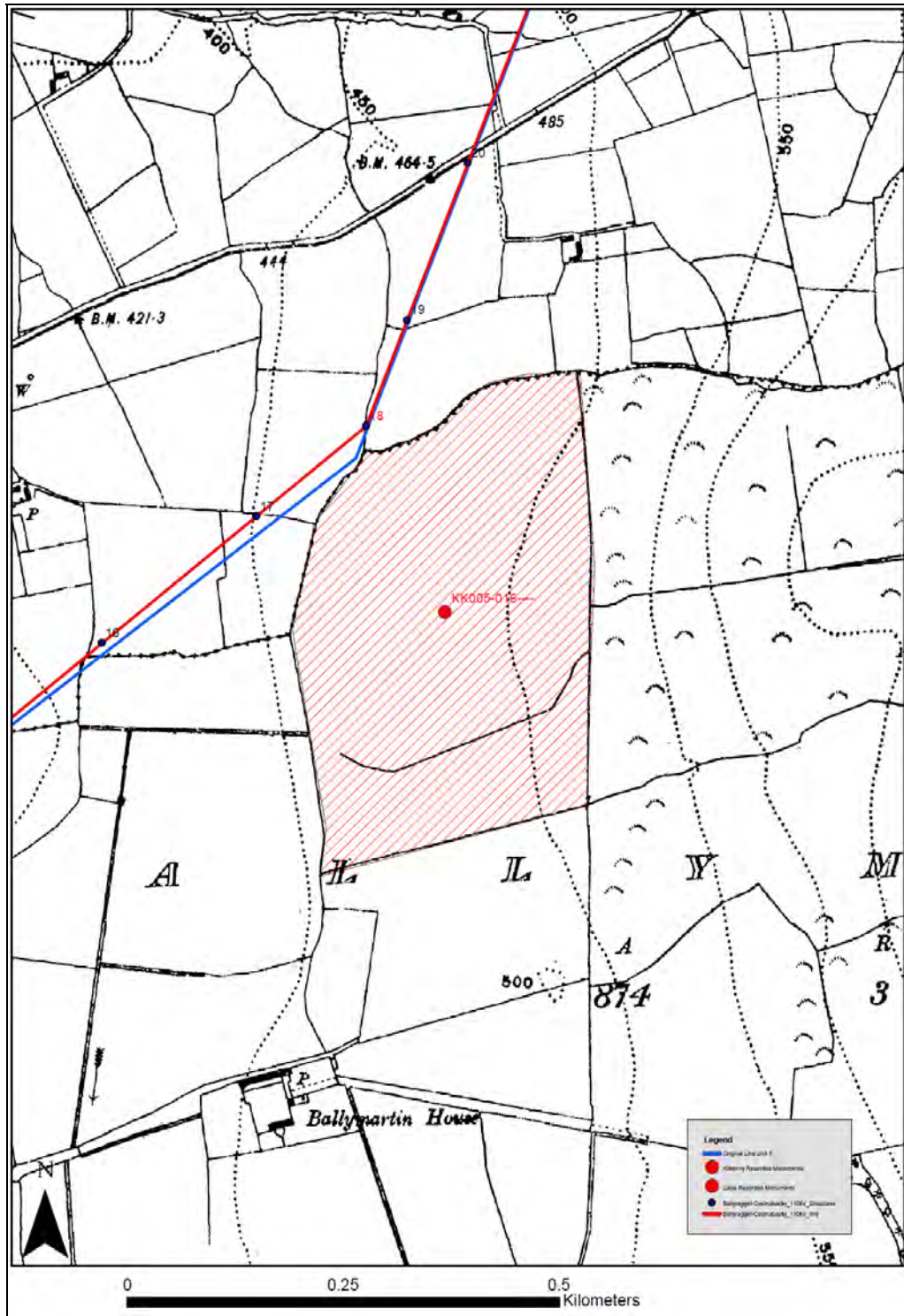


Figure 7.15 Field system KK005-016 in relation to structure BC18 Unit 5

Ringfort- Rath KK005-014

This recorded monument is located in Tinnalintan townland, Co. Kilkenny and was visited as part of the field assessment. The monument is located approximately 153m to the nearest poleset BC11 therefore avoiding all potential direct impacts. No structures are proposed to be positioned in the same field as the monument (Figure 7.16). Only a portion of the line will traverse the north-western corner of the field in which the monument is located. The NMS file archive describes the fort as follows; *'Situated on brow of a precipitous W-facing slope commanding an exceptional view from SW-W-NW. Condition: Fair. A circular area (int diameter 30m) enclosed by a substantial earth and stone bank remains of a fosse and counterscarpbank. Bank is well preserved throughout (ext H 1.35m, int H 1.15m, With 4m) although it*

has slipped considerably in its internal face. Fosse width 2.5m is infilled from SW-W. Counterscarp bank (H above fosse 1.5m H over field level 0.6m) encloses fosse except from SW-W where it has been removed. A Low stoney bank running E-W adjoins rath at W. Both bank and counterscarp and interior heavily overgrown with hawthorn beech and ivy.

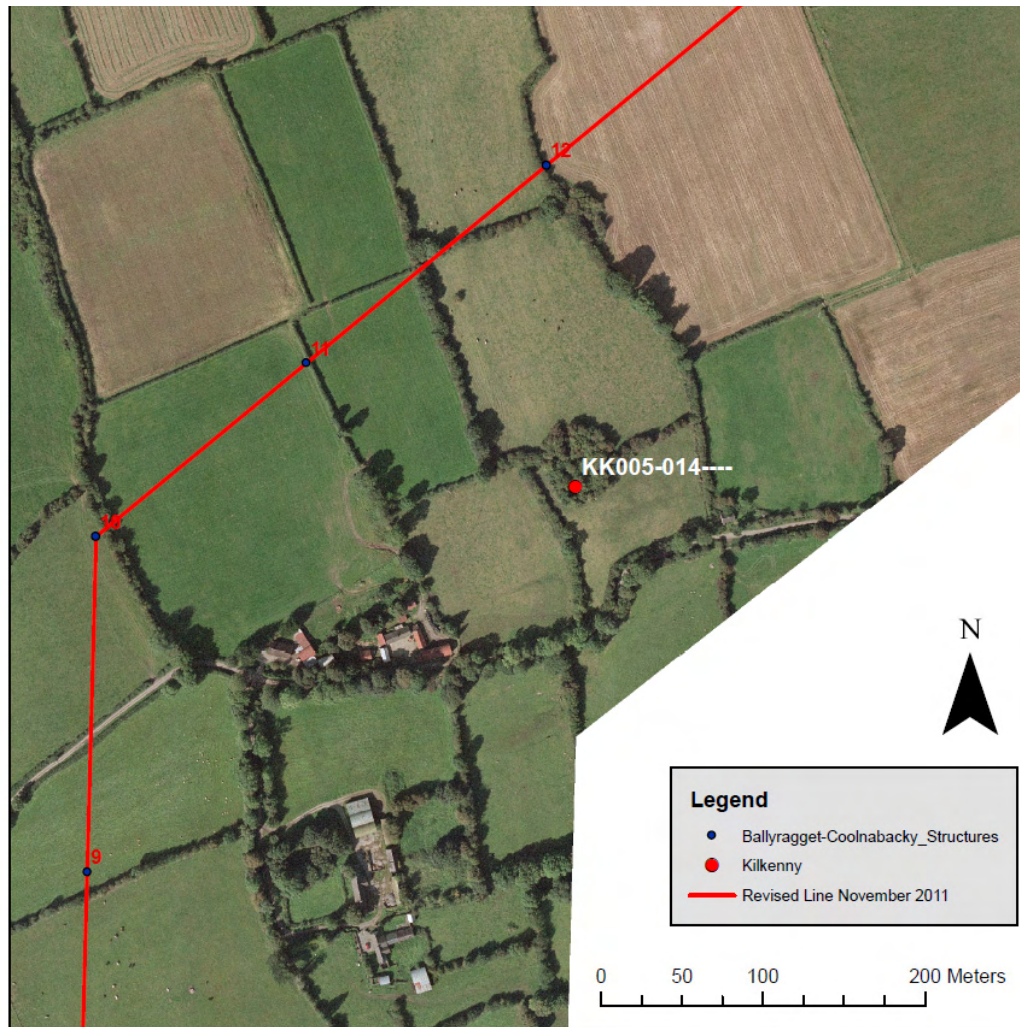


Figure 7.16 Ringfort KK005-014 in relation to Unit 5

KK005-095 Field System and KK005-094 Enclosure

These monuments are located in the same field, in the townland of Rathduff, Co. Kilkenny. They were visited as part of the assessment process and no surface trace of the monuments survives. At the time of survey, the field was being grazed by cattle. The monuments are described above in Section 7.3.1.4.2 in relation to the proposed substation (Unit 4). The extent of the field systems and enclosure is not defined either on 6 inch mapping or the current aerial photography. The proposed overhead line traverses the field in which these monuments are located. As there is no visible surface trace of the monuments, there will be no visual impact. A structure (BC5) is proposed to be located to the east of the levelled enclosure KK005-094. In order to avoid any potential physical impact on the monument, the proposed location of poleset BC5 should be subject to geophysical survey followed by archaeological testing (if necessary) in advance of construction to confirm the presence or otherwise of potential sub-surface archaeological deposits relating to the levelled enclosure. An archaeologist should also be present on site to identify the monument during the construction phase and to monitor all ground works associated with poleset BC5 and BC6. Of note is the presence of 2 buildings and a passageway in the location of the enclosure on the 1st Edition mapping. The enclosure is not marked on this map.

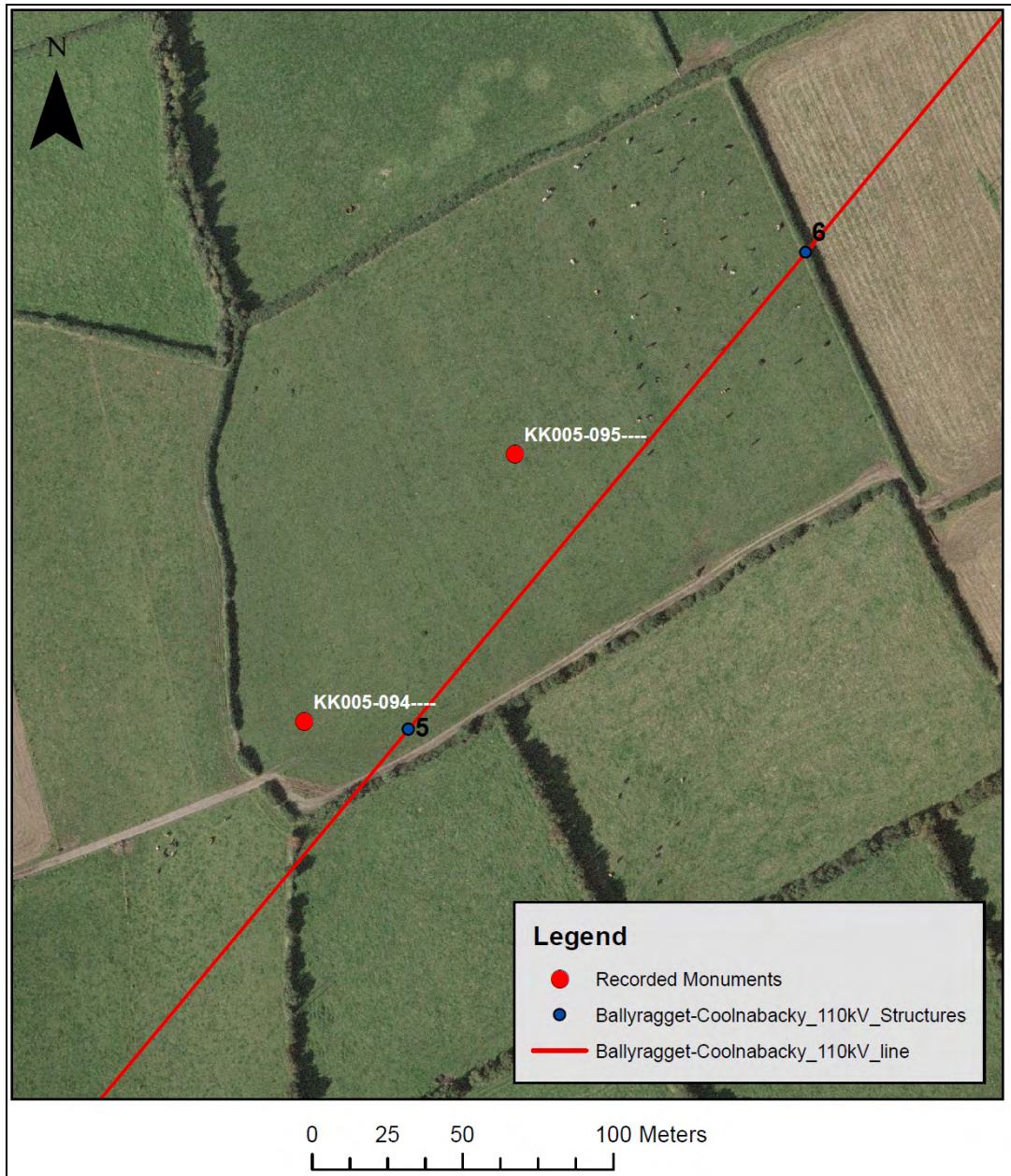


Figure 7.17 KK005-094 and KK005-095 in relation to Unit 5

7.3.1.5.3 Newly Detected sites – Field survey / Aerial Photos

Five previously unknown potential archaeological sites along Unit 5 were noted during the assessment process. Some sites were detected from aerial photographs while others were suggested through local information and field work and therefore given consideration in this EIS (Figure 7.24).

| Easting | Northing | Description | Townland | Distance to Line |
|---------|----------|--|-------------|---|
| 251739 | 190987 | Possible fulacht fiadh - aerial photo | Cremorgan | 26m to BC131 |
| 245509 | 173674 | Possible Ringfort | Ballymartin | 19m to BC12 20m to construction access track |
| 246720 | 177324 | Rath – local information | Loughill | 154m to BC36 |
| 253113 | 193022 | Possible field system | Money Lower | 73m to BC147 |
| 251881 | 187788 | Circular hachured area – 6 inch OS map | Garyglass | 205m to BC110 |

Table 7.10 New sites along Unit 5

Fulacht Fiadh – Cremorgan

This site was detected through the examination of aerial photographs. It appears as a dark spread of material in a ploughed field. The field was under pasture at the time of survey and no visible surface trace of the possible fulacht fiadh/burnt spread survives above ground. It is highly likely that the site has been ploughed out and therefore levelled. The site was highlighted at an early stage in the assessment process, and is therefore, avoided by polesets.

The nearest structure BC131 will be positioned in the field boundary 26m to the north of the site. For the sake of completeness, an archaeologist should also be present during construction to monitor ground works associated with Poleset BC131.



Figure 7.18 Potential fulacht fiadh indicated by arrow

Possible Ringfort – Ballymartin

This was identified during field survey and consultation of aerial photography on which it appears as a roughly semi-circular arrangement of trees. When examined on the ground, the eastern portion of the

possible rath/ringfort appears to be defined by a curving earthen/stone bank. This was difficult to trace however due to the dense overgrowth that occupies this area. The curving bank is dissected by the NW/SE field boundary that divides the farm properties but may originally have continued into the adjoining field to the west. The proposed overhead line does not traverse this potential site and the nearest structure (BC12) is located 19m to the north. Archaeological monitoring at the construction phase of the project is required.



Figure 7.19 Potential rath – aerial photographs



Plate 7.4 Possible ringfort at Ballymartin Td. looking NW

Rath – Local Information.

This site is located in the townland of Loughill and according to the landowner, is known locally as a rath. It appears as a sub-rectangular arrangement of trees on aerial photography and when examined on the ground does not resemble a ringfort. The site is now defined by trees and is densely overgrown. It also contains a raised area and a large hollow which is likely to be the remains of the funnel associated with a limekiln. This is confirmed by the depiction of a limekiln at this location on the 1st edition OS map. The kiln had gone by the early 1900s (2nd edition). Subsequent to the field inspection the line was moved further to the west and the site now measures 154m to the nearest poleset (BC36). No direct or indirect impacts have therefore been identified.



Figure 7.20 Rath (local information) in relation to Unit 5

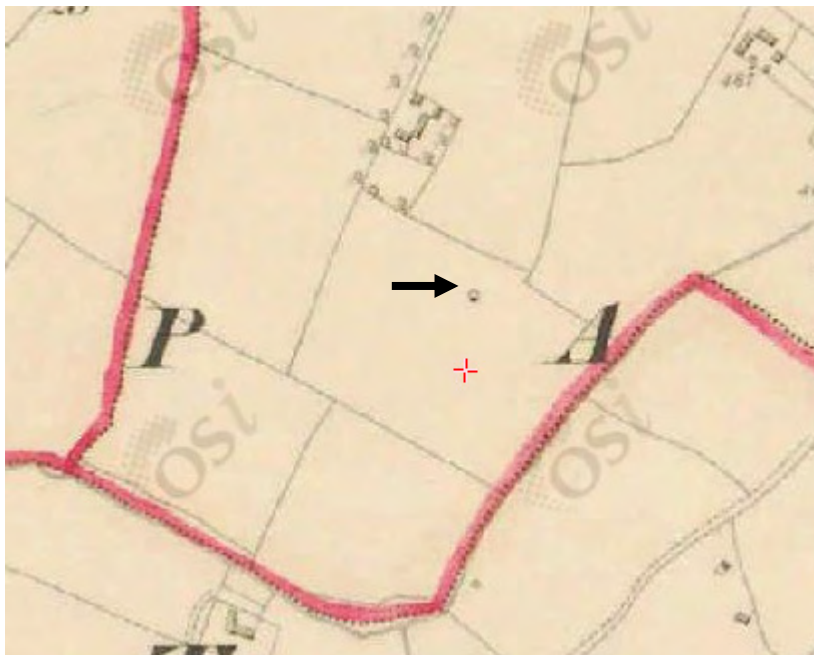


Figure 7.21 Lime kiln marked on 1st Edition map in area of 'Rath'

Field System – Money Lower

A field system was identified in Money Lower townland through the examination of aerial photography. The land in which this site is located was not accessed at the time of field survey. The field system has already been described in Section 7.3.1.2.3 above as it is within close proximity to the proposed 400kV line (Unit 2) to the east. The field system is outlined in purple below on Figure 7.22. The nearest structure BC147 measures 73m to the edge of the field boundary surrounding the crop marks. Although no direct impacts are anticipated, it is recommended that an archaeologist monitor ground works associated with the construction of Poleset BC147.

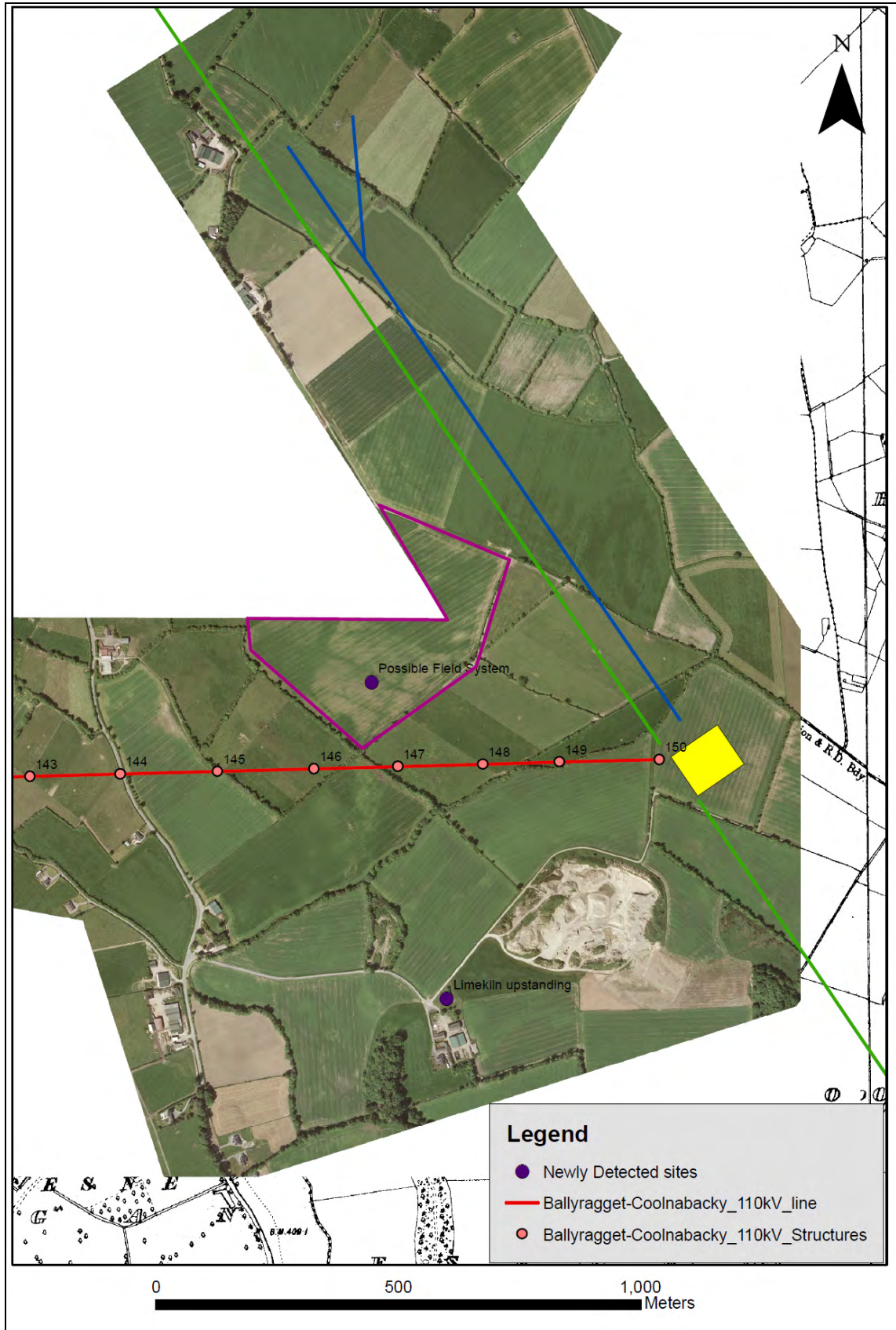


Figure 7.22 New field system in relation to Unit 5

Circular Hachured Area - Garryglass townland – possible rath

This feature was detected during an examination of the 6 inch OS mapping as it is located just north of a recorded monument (LA024-025 - levelled enclosure). It was examined on both aerial photography and on the ground and no visible surface trace of this site now remains. It also appears as a sub-circular hachured area on the 2nd edition 6 inch mapping. It has been identified here as a possible rath and can be seen on Figure 7.23 below. The outer limits of the possible rath measure 205m to BC110 and 111 and therefore no impacts either direct or indirect are anticipated.

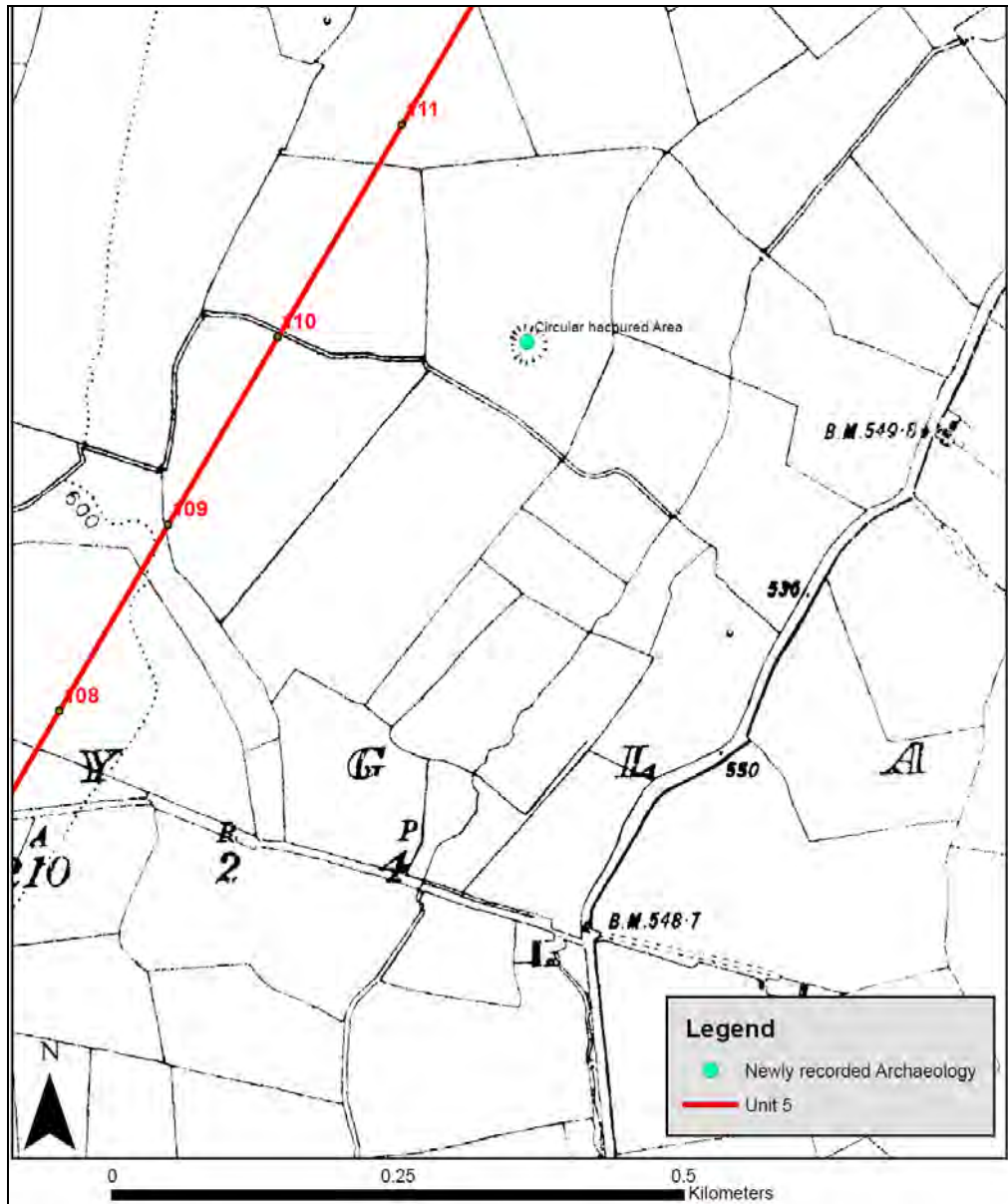


Figure 7.23 Possible rath identified in Garryglass td

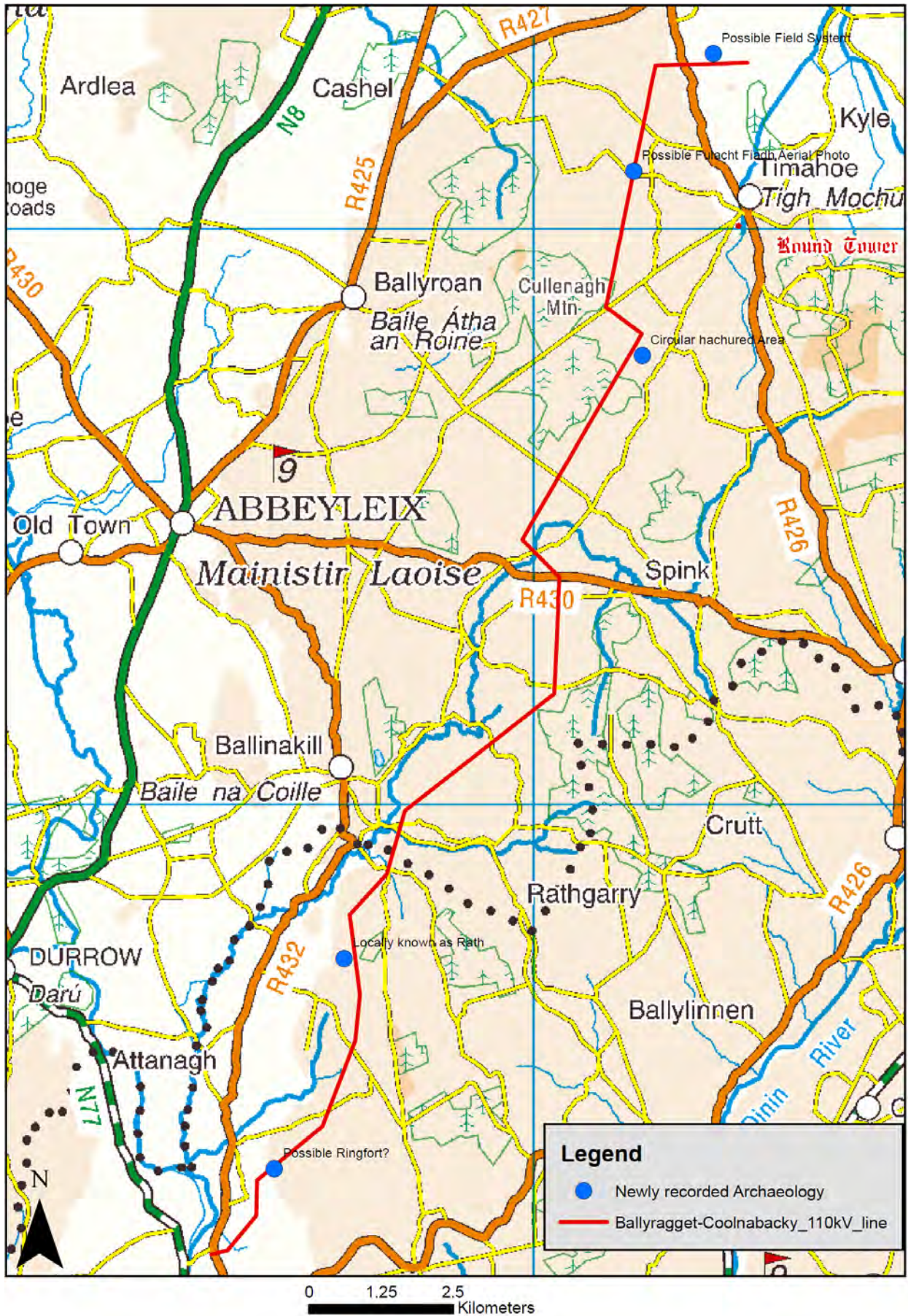


Figure 7.24 New sites of archaeological potential along Unit 5

7.3.1.5.4 Proposed Indicative Construction Access tracks and other working areas

The proposed indicative construction access tracks utilise existing farm tracks where possible after which farm machinery routes through fields will be utilised. Guard points will be constructed where stringing the new line traverses roads, railways etc. Ground disturbance in the form of excavated pits will be required to construct the guarding points. Where construction access tracks, guarding points or any other working area is proposed in the vicinity of any cultural heritage feature, annotated mapping will be presented here.

Access to structures 147-149 along Unit 5 will be via an existing track which skirts around a newly recorded **sub-surface** field system (aerial photographs) after which machinery similar to farm machinery will traverse green fields. No impacts are anticipated here.

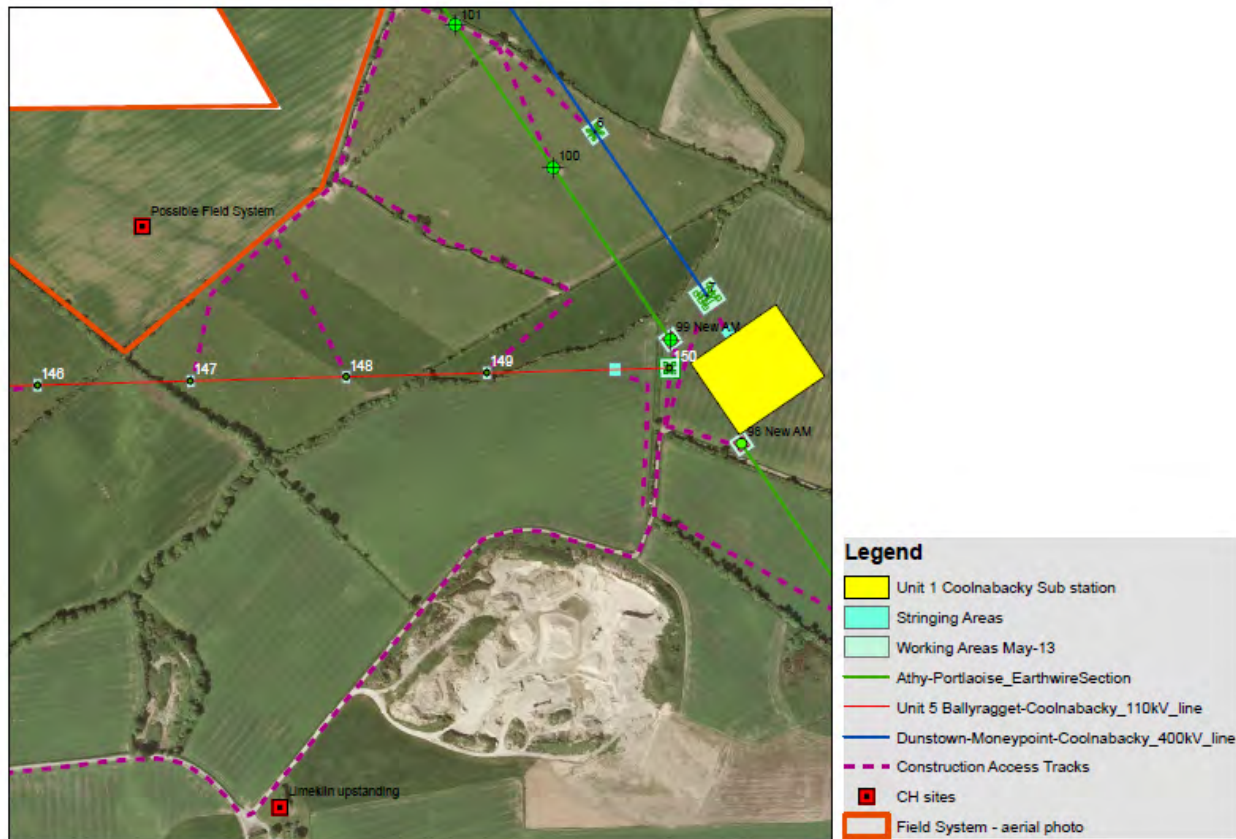


Figure 7.25 Unit 5, access to structures 147-149

BC131

Access to structure BC131 and the associated guard points are located within close proximity to a newly recorded **sub-surface** burnt spread / fulacht fiadh (aerial photo). In order to mitigate against any potential damage to this monument, the proposed construction access track will skirt around the levelled site to the east (Figure 7.26). Furthermore, excavation associated with the guarding points should be monitored by a suitably qualified archaeologist.

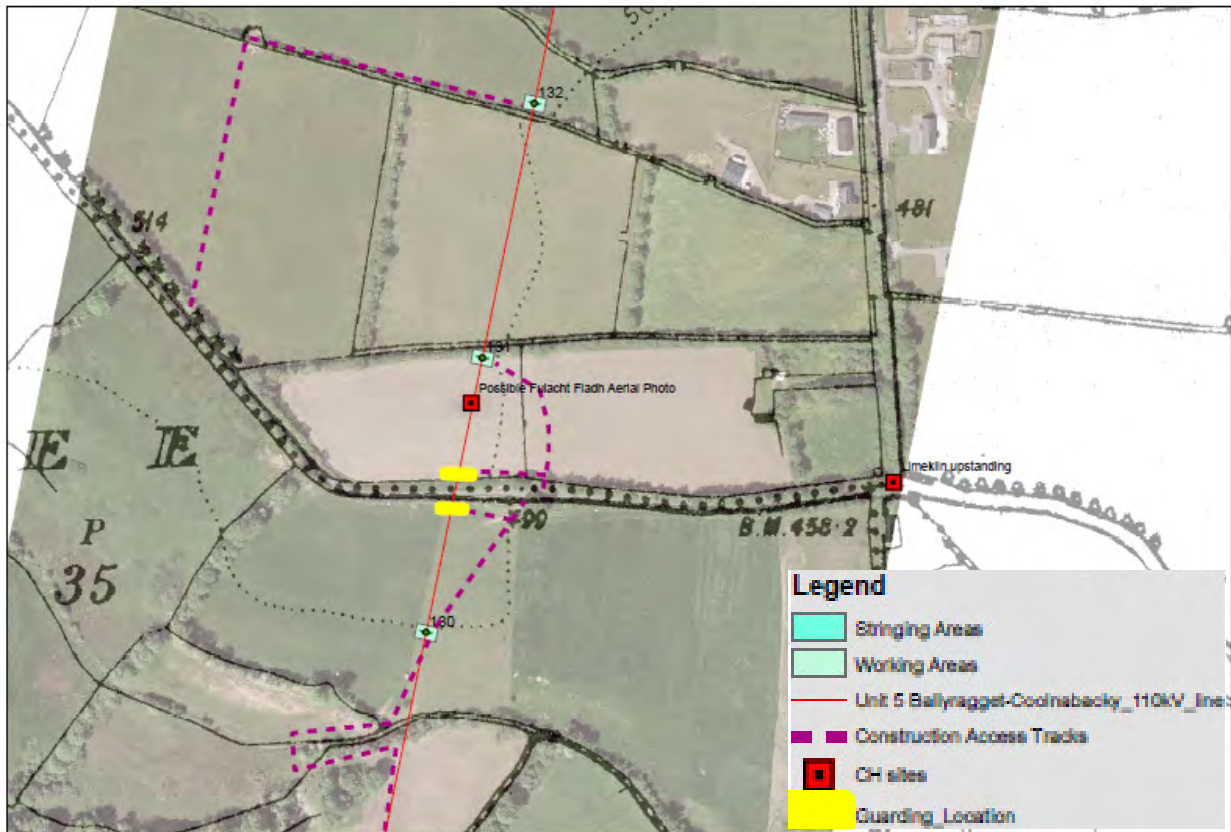


Figure 7.26 Proposed construction access track to poleset 1310 and associated guarding points

BC109 and BC110

Access to Structure BC109 and BC110 will require machinery traversing across a field adjacent to a forestry plantation. A levelled enclosure (LA024-025) is located in this field. No impacts are anticipated although it is recommended that an archaeologist monitor the access and poleset construction for BC109 in this location. This is to negate any unlikely potential damage by machinery to the sub-surface enclosure.

BC75 and BC76

The proposed construction access tracks to these structures are within close proximity to a now levelled enclosure LA030-016 at Knockardagur. Access was not permitted here therefore a visual inspection of the site was not undertaken. It is recommended that an archaeologist monitor the machine access to this site and the construction of the polesets in this location in order to negate any potential impacts on the sub-surface archaeology.

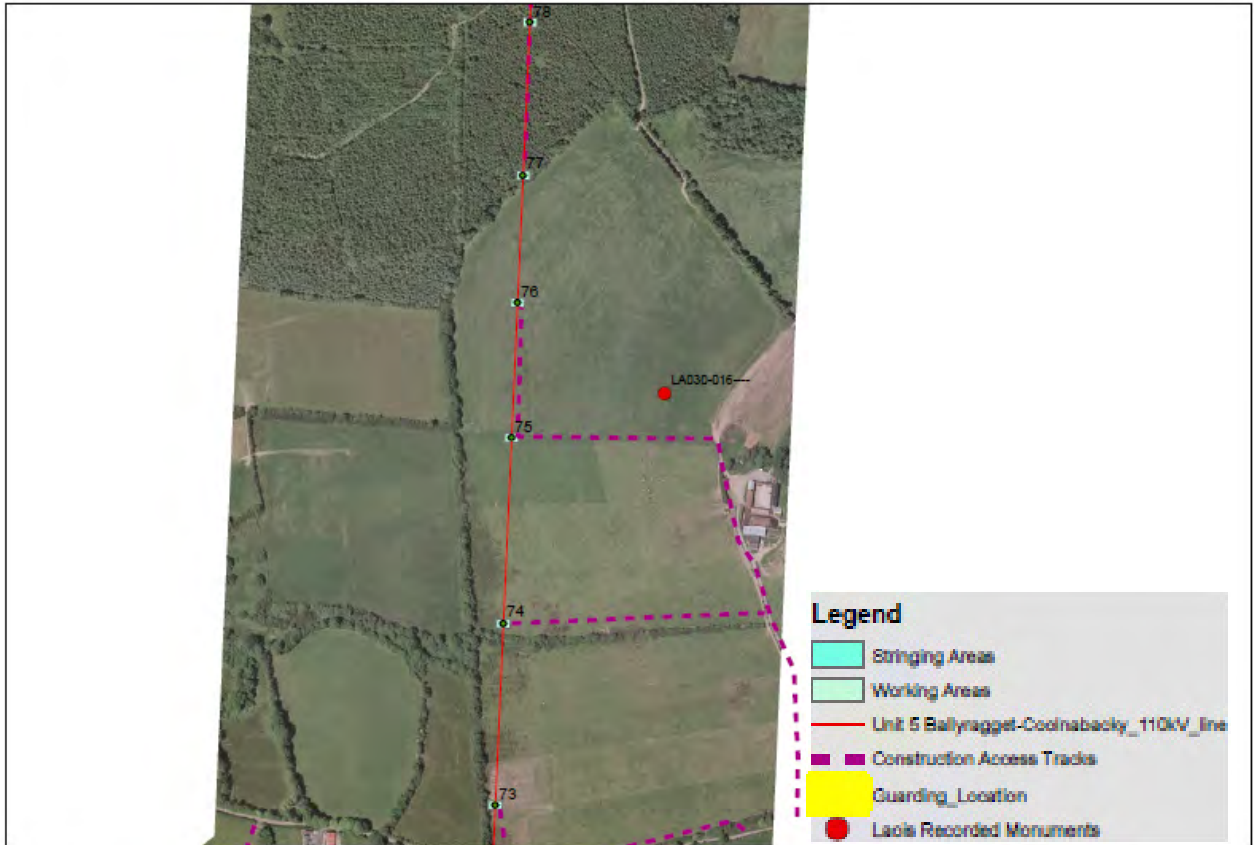


Figure 7.27 Recorded monument LA030-016 in vicinity of construction access tracks

BC56

The proposed construction access track to BC56 traverses within close proximity to an upstanding ringfort LA030-022. This was inspected as part of the assessment process. The ringfort is currently fenced off from the area where it is proposed to track machinery and this will function as an adequate buffer from the fort. An archaeologist should monitor the movement of machinery in the vicinity of this proposed access track to negate any potential impacts on the monument.

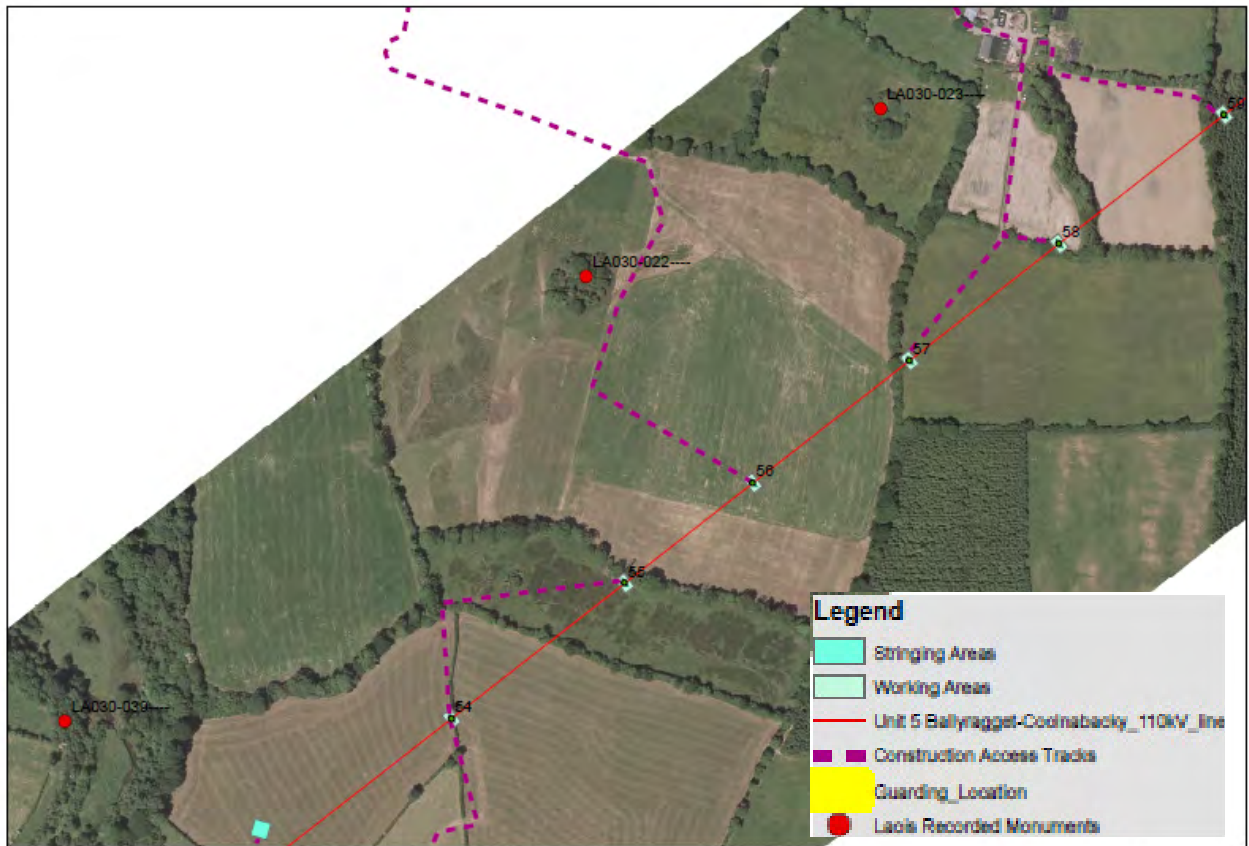


Figure 7.28 Proposed construction access track to BC56 in relation to LA030-022 ringfort

BC45-BC47 construction access tracks and guarding areas

A guarding point and associated access track is located within relative close proximity to a complex of monuments at Loughill Td. Whilst no direct physical impacts on this complex are anticipated it is recommended that an archaeologist monitor the construction of the guard point in this area. Furthermore, it is recommended that the trees that currently screen the archaeological complex of monuments from the proposed nearby polesets and angle masts (BC45-47) remain in situ. The guard points are proposed to be erected over a small bridge on the road. The latter was inspected for any potential cultural heritage value. It consists of a concrete culverted structure and therefore no impacts are anticipated.

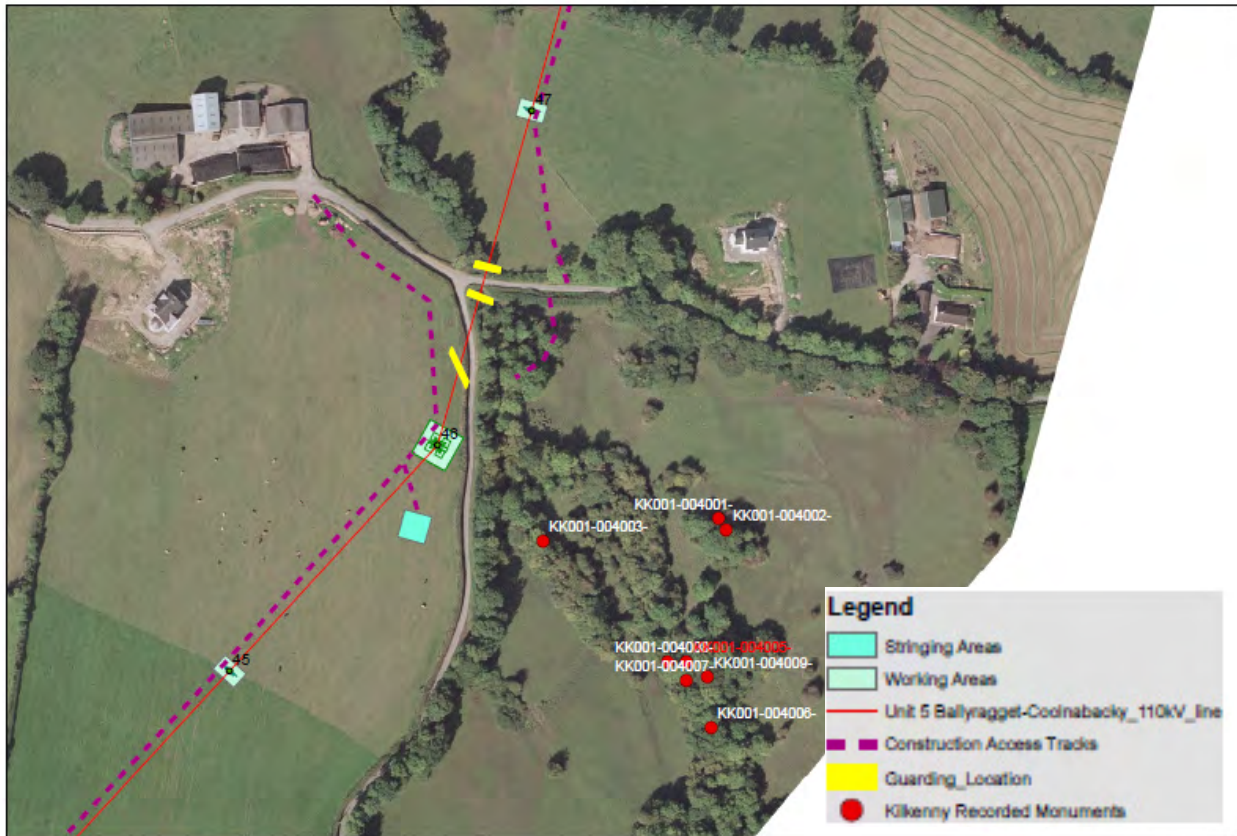


Figure 7.29 Structures BC45-47 access tracks and guarding locations in relation to Loughill archaeological complex KK001-004

BC12

The proposed construction access track to BC12 is located close to a curving bank (possible ringfort) and therefore archaeological monitoring is recommended during construction to negate any potential impacts of construction machinery on the feature.

BC5 and BC6

The proposed construction access tracks to polesets BC5 and BC6 will traverse two levelled recorded monuments (KK005-094 enclosure and KK005-095 field system) along the route of the proposed overhead line. No visible surface trace of the monuments survive therefore no direct physical impacts are anticipated. Archaeological monitoring at the construction stage is recommended however to negate any potential impacts on the sub-surface archaeological monuments.

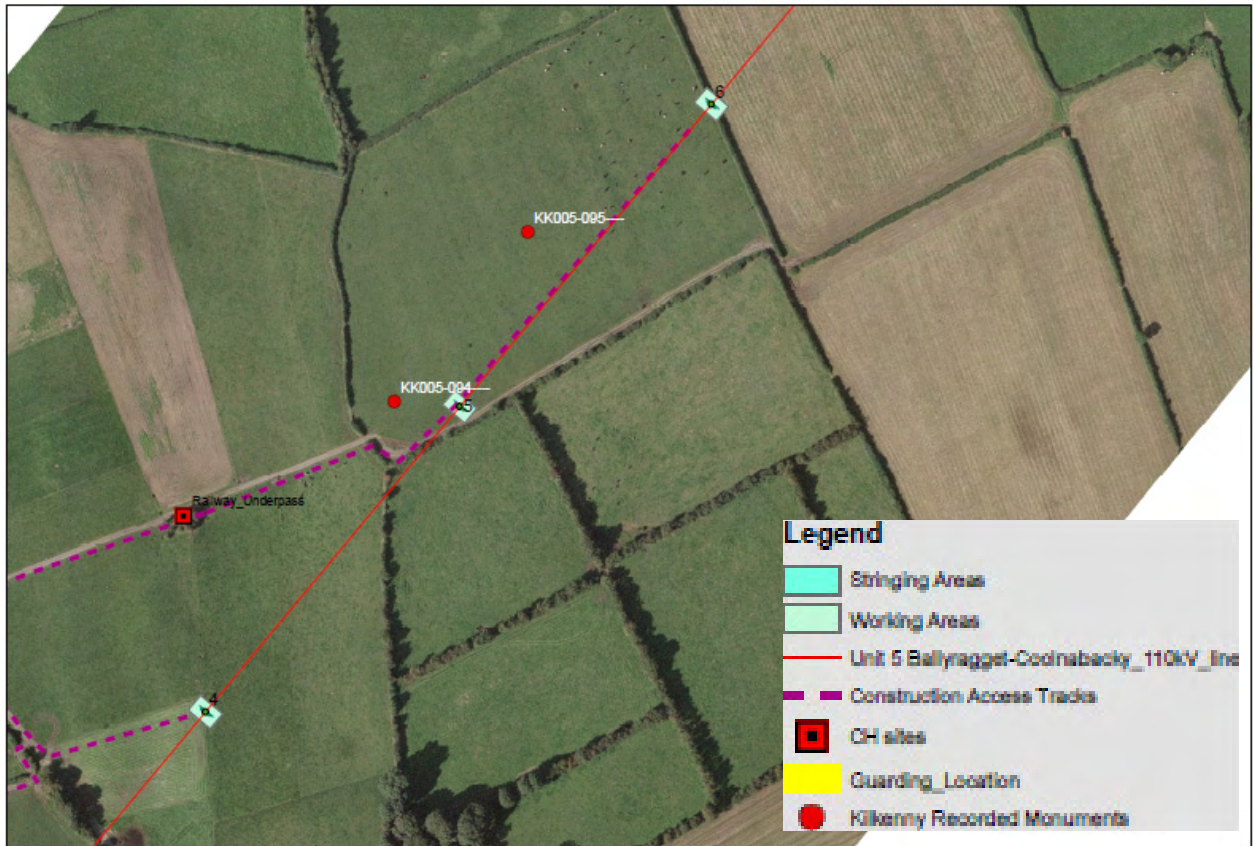


Figure 7.30 Construction access track to BC5 and BC6 in relation to KK005-094 and 095

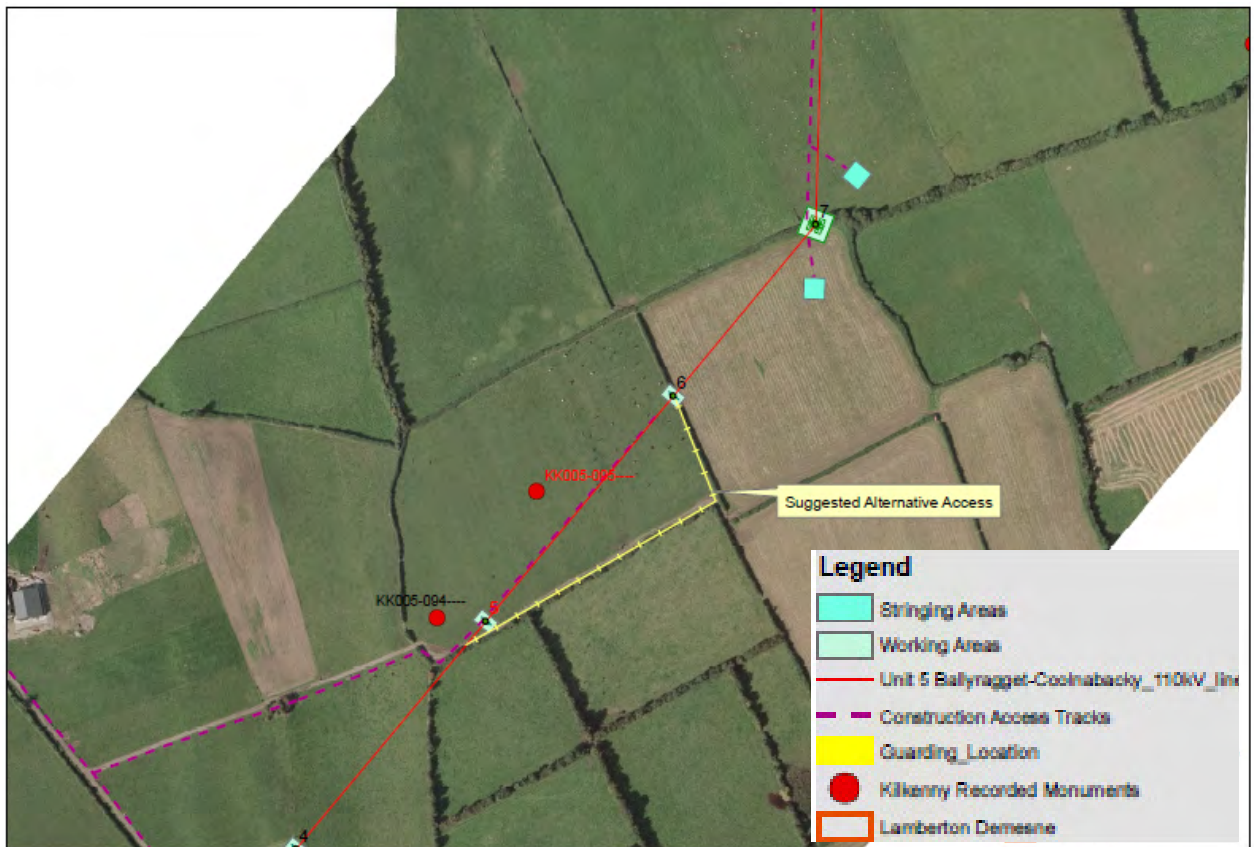


Figure 7.31 Suggested alternative access from BC5 to BC6

7.3.1.6 Unit 6 - An Uprate of the Existing Ballyragget-Kilkenny 110kV overhead line

This component of the reinforcement project consists of the up-rating of approximately 22km of an existing line from 38kV to 110kV. The line and structures are existing and it is proposed to replace all structures as part of the up-rating process (Figure 7.33). The existing line consists of double polesets and angle masts where the line changes direction. The Department of Arts Heritage and the Gaeltacht (DAHG) have requested that, although this aspect of the project is concerned with replacement, a full inspection of the line is still required (Catherine Desmond, pers comm.). In this regard, all recorded monuments which occur within 50m of either side of the existing line were inspected. In addition, levelled monuments whose full extents are not apparent on the ground / mapping / aerial photographs were also visited and included here. All National Monuments within 1km of the line were also visited to assess potential visual impact.

7.3.1.6.1 National Monuments

All National Monuments within 1km of the line are included here and where possible were visited as part of the assessment process in order to assess if views to the existing line were possible. Six monuments which have National Monument (in Local Authority and State Ownership) status are located within 1km of the existing (and proposed up-rated line).

| Easting | Northing | RMP | Description | Townland | Distance to line | Ownership Status |
|---------|----------|-----------|----------------------|-----------------|--|----------------------------|
| 245413 | 169973 | KK010-005 | Church and Graveyard | DONAGHMORE | 305m | Kilkenny Co Co |
| 247887 | 166914 | KK010-060 | Church and Graveyard | SHANGANNY | 634m | Kilkenny Co Co |
| 250994 | 162926 | KK014-042 | Church and Graveyard | KILMADEMOGE | 637m | Kilkenny Co Co |
| 251116 | 159847 | KK014-066 | Church and Graveyard | RADESTOWN NORTH | 900m | Kilkenny Co Co |
| 254959 | 155988 | KK020-009 | Church and Graveyard | TEMPLEMARTIN | 120m to BK95 and 166 to BK angle mast 94 | Kilkenny Co Co |
| 244465 | 172696 | KK005-023 | Castle - motte | MOATPARK | 530m | Preservation Order - State |

Table 7.11 National Monuments, Unit 6

Donaghmore Church and Graveyard KK010-005

This monument is described in detail above in Section 7.3.1.5.1. The church and graveyard is located 305m to the nearest structure and will not be directly impacted by the up grading of the existing line. The existing (and proposed) overhead line is visible at a distance from the rear (east) of the church and graveyard.



Plate 7.5 Donaghmore Church and Graveyard looking East



Plate 7.6 BK17 from graveyard looking NE



Plate 7.7 BK19 angle mast from rear (east) of graveyard looking SE

Shanganny Church and Graveyard KK010-060

Shanganny Church and Graveyard was vested in Kilkenny County Council (PH110/50 KK Co. Co. records 1954). According to the RMP file a piece of 16th century Purcell tomb remains in the graveyard (NMI field monument files). Medieval church in ruins. No sign of slabs referred to in Carrigan 1987 (RMP files). The site is located *c.* 634m to the nearest structure along the existing line. It is situated in a green field with no formal public access. This site was not accessed as part of the assessment due to its location surrounded by private lands. The monument is only visible in few locations from public roads and is not visible from the existing line. No impacts are anticipated therefore.

Kilmademoige Church and Graveyard KK014-042

This is a ruined medieval church with a graveyard to the south (Carrigan 1905 iii, 462-3; RMP file). The stone wall surrounding the graveyard was built by 'Kilkenny Board of Guardians' (Carrigan 1905 iii, 462-3). The tombs within are predominantly 18th century in date. This monument was visited as part of the assessment process in order to obtain information on the potential for visual impact as a result of the up-rating of the existing line. The church and graveyard is located atop a small hillock adjacent to the public road. The site is densely overgrown and is not accessible. Given its' prominent position along the roadway, views towards the existing line, although limited, are possible. Four polesets are visible from the monument but are barely discernible in the landscape. No angle masts were visible on the day of survey. The up-rating of the existing line will not have any significant negative visual impact on this monument. No direct impacts will occur.



Plate 7.8 KK014-042 church and graveyard National Monument looking north



Plate 7.9 View of Unit 6 from KK014-042 looking south. Note poleset in centre of picture

Radestown North Church and Graveyard KK014-066

There is no visible trace of the church (Carrigan 1905 iii, 267). The graveyard is still in use with pronounced raised central area. The earliest gravestone appears to be 18th century in date (RMP file). A few 18th century tombstones, mostly 19th and 20th century area apparent (Rothe House Graveyard Inscriptions TGO). This graveyard was visited as part of the assessment process and was surrounded by a mature crop on the day of survey. The graveyard is fairly well maintained and is accessible through a field although the original pathway to the site is not visible. Plate 7.10 shows the only entrance to the burial ground and this is currently the only view of the site in the locality. The exiting line is not visible from the graveyard and is located just under 1km to the east. In this regard no visual impacts to this monument will occur.



Plate 7.10 KK014-055 Radestown Burial Ground National Monument looking west

Templemartin Church and Graveyard KK020-009 (Figure 7.32)

This church and graveyard was vested in Kilkenny County Council (KK Co.Co. List 1962), 'Kilkenny County Council are owners' 1941 (PH110/70 KK Co.Co. records). This information was obtained from the Historic Burial Grounds Database for County Kilkenny. It is described in the Historic Burial Grounds database as a 'Medieval church in ruins within heavily overgrown graveyard, approx D-shaped area enclosed by stone wall (Carrigan 1905 iii, 362-3; RMP file). Densely populated with headstones and uninscribed grave-markers, none earlier than 18th century'. The nearest structure (Poleset - BK95) is located 120m to the south-east of the church and is clearly visible from the latter. The nearest angle mast structure is located 166m to the north of the church. The angle mast is only partially visible from the monument due to the presence of a substantial field boundary separating one from the other (Plate 7.13). It is proposed to increase the height of this angle mast as part of the upgrading works therefore it is likely that it may be more visible from the monument.



Plate 7.11 KK020-009 church and graveyard (National Monument) looking west



Plate 7.12 View of Poleset BK 95 from KK020-009



Plate 7.13 View of BK 94 angle mast from KK020-009 looking north. Note limited views

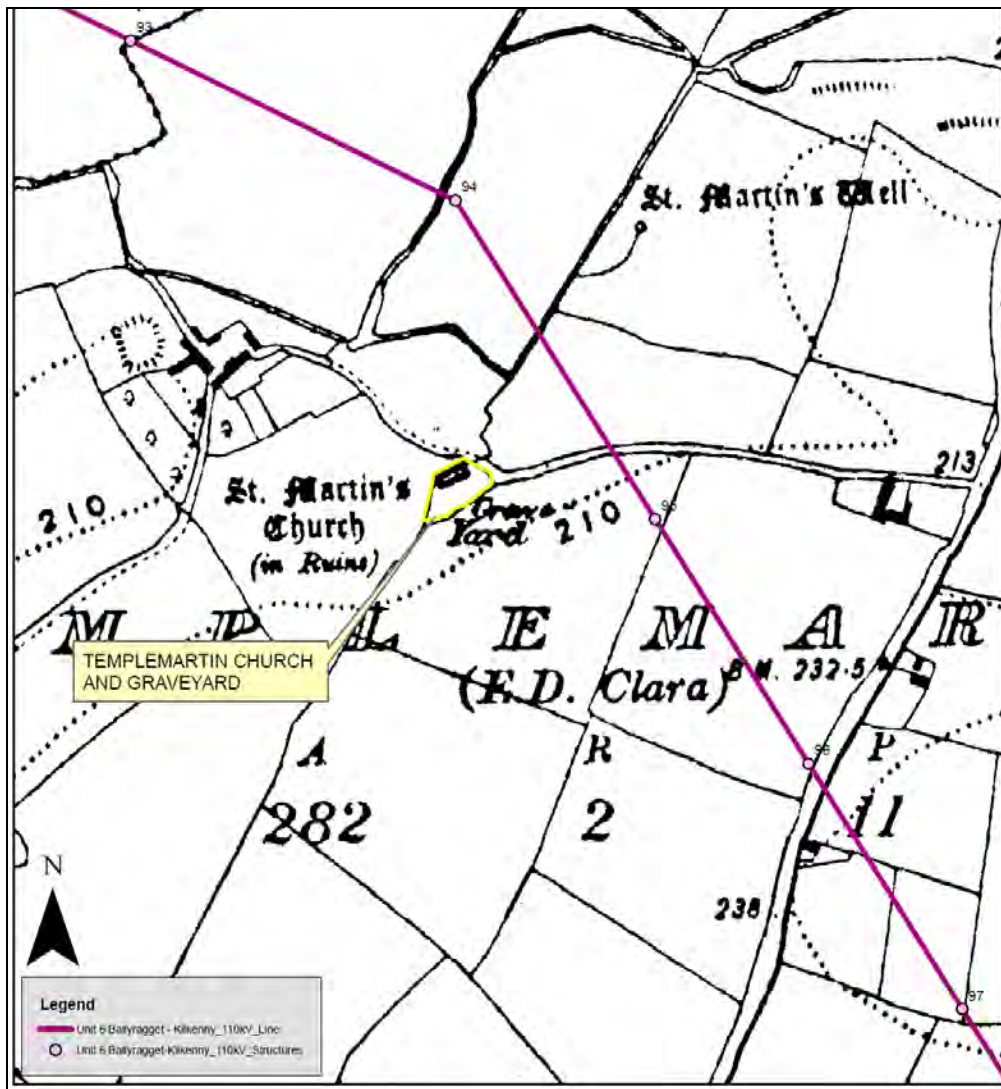


Figure 7.32 Detail of Unit 5 in relation to Templemartin Church and Graveyard

Moatpark Motte and bailey KK005-023 (Preservation Order NO. 5/1983)

This motte has been described in Section 7.3.1.4.1 above. This motte is located c. 530m from the existing line which will be up-rated and is located on the opposite (western) side of the regional road (R432). The existing and proposed line is not visible from the public road adjacent to the Motte and Bailey. No visual impacts are anticipated in this regard.

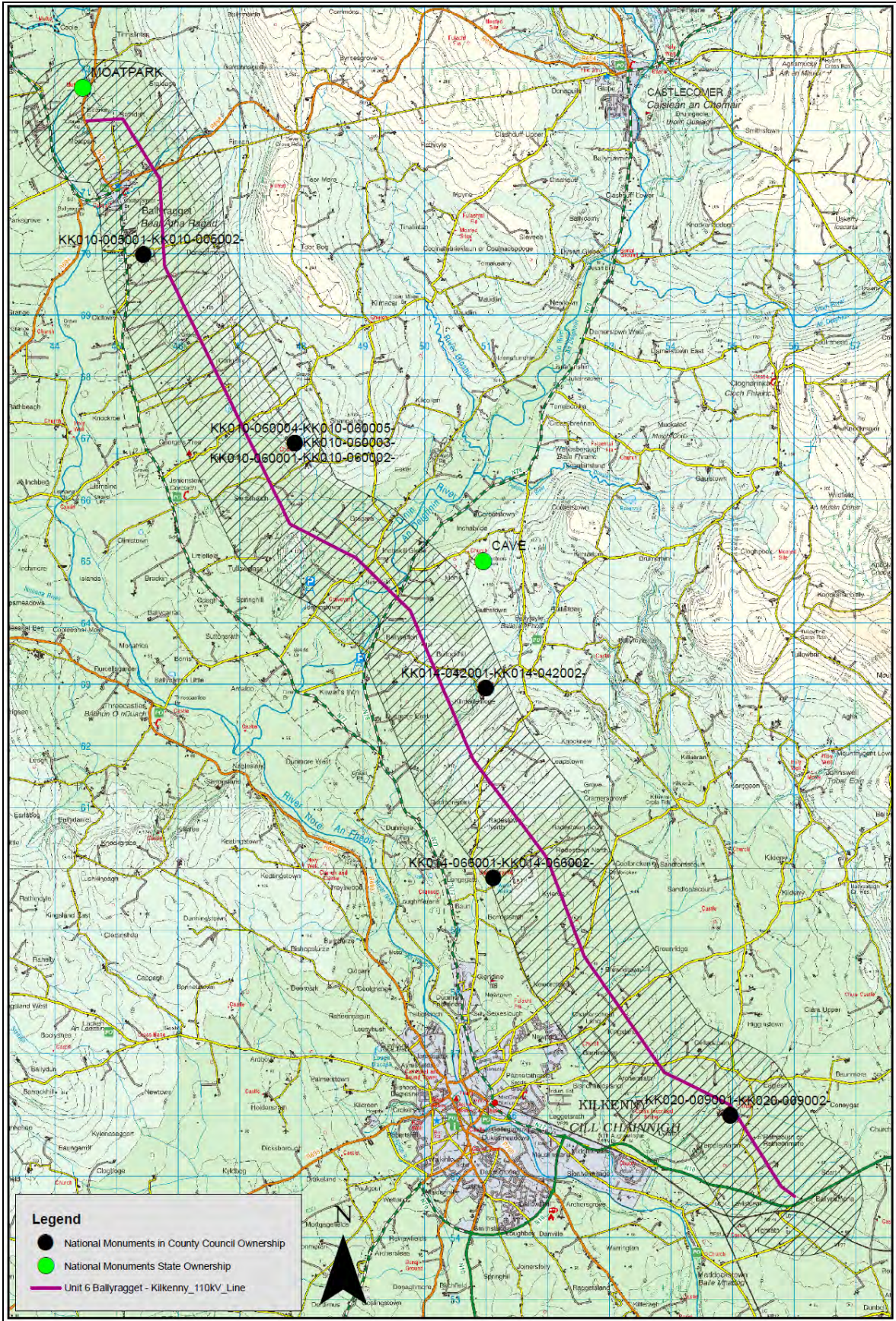


Figure 7.33 National Monuments located within 1km of Unit 6

7.3.1.6.2 Construction Access Tracks and other Working Areas near to National Monuments

The proposed construction access tracks in the vicinity of Donaghmore Church and Graveyard KK010-005 are located only on existing roads and tracks and therefore no impacts are anticipated. This is also the case with National Monument KK014-042 Kilmademoge Church and Graveyard where it is proposed to utilise existing tracks and roads. The proposed construction access track to BK93-95 will traverse immediately adjacent to Templemartin Church and Graveyard (National Monument KK020-009) again utilising an existing road. No impacts on National Monuments as a result of the proposed access tracks or other associated working areas are anticipated.

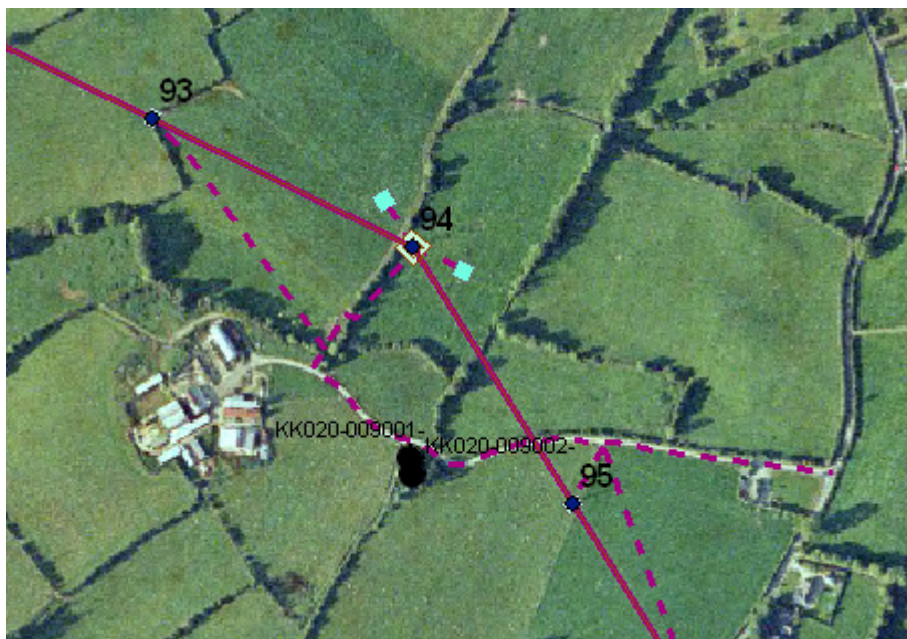


Figure 7.34 Proposed construction access tracks to BK93-95 in relation to KK020-009 National Monument

7.3.1.6.3 Recorded Monuments

Ten recorded monuments are located adjacent to the existing Ballyragget-Kilkenny line which is due to be up-rated from 38kV to 110kVs. These monuments are listed in Table 7.12 below:

| Eastings | Northing | RMP | Description | Townland | Comment |
|----------|----------|-----------|-------------|-------------|---|
| 245011 | 172202 | KK005-096 | Enclosure | RATHDUFF | Levelled and not on 1st or 2nd ed. map. Centre point of monument 86m from BK4 angle mast. Guard point 50m from centre of site. Construction access track 20m from centre of site. |
| 245190 | 172200 | KK005-024 | Mound | RATHDUFF | Extant. 86m from BK4. On 1st and 2nd ed. map. |
| 245646 | 171007 | KK010-003 | Ringfort | BALLYRAGGET | Extant. 21m from existing structure. 17m from proposed replacement structure. |
| 245727 | 169763 | KK010-183 | Enclosure | DONAGHMORE | Levelled and not on 1st or 2nd ed. map. |
| 245940 | 169659 | KK010-006 | Ringfort | DONAGHMORE | Extant. 69m from line but in same field. |

| | | | | | |
|--------|--------|--------------|------------|--------------|---|
| 245850 | 169532 | KK010-159 | Enclosure | DONAGHMORE | Levelled and not on 1st or 2nd ed. Appears on 1995 ap. C. 26 m from line. |
| 246311 | 168623 | KK010-141 | Enclosure | CONNAHY | Now levelled. Clearly appears on 1995 ap. Line extends over eastern ditch. |
| 246359 | 168497 | KK010-154 | Ring-ditch | CONNAHY | Levelled. Not on 1st or 2nd ed. map. 37m from centre point to line and 72m to nearest structure to north. |
| 250670 | 161774 | KK014-040001 | Enclosure | DUNMORE PARK | Levelled. Not on 1st or 2nd ed. map. Not on aerials. Centre dot 100m to line. |
| 252463 | 159169 | KK014-068 | Ringfort | BROWNSTOWN | Upstanding. On both editions and aerials. 85m to nearest structure to north-west. |

Table 7.12 Recorded monuments located adjacent to Unit 6

KK005-096 Enclosure (Figure 7.35) (See Section 7.3.1.4.2 above for details of this site)

This monument is located in Rathduff townland to the north of the existing line. It does not appear on aerial photographs (current edition) and does not appear on the 1st or 2nd edition OS map therefore its full extent is not known. An archaeologist should monitor all ground disturbance associated with the construction of BK4 angle mast in this location. This is to ensure the adequate protection of the monument.

KK005-024 Mound (Figure 7.35)

This monument is located in Rathduff townland c. 86m to the east-north-east of BK4 angle mast. This monument is still extant and visible on aerial photography. It also appears on both the 1st and 2nd edition OS maps. No information was available in the RMP file when consulted. An archaeologist should monitor all ground disturbance associated with the construction of proposed angle mast BK4 in this location, in order to ensure the adequate protection of the archaeological resource.

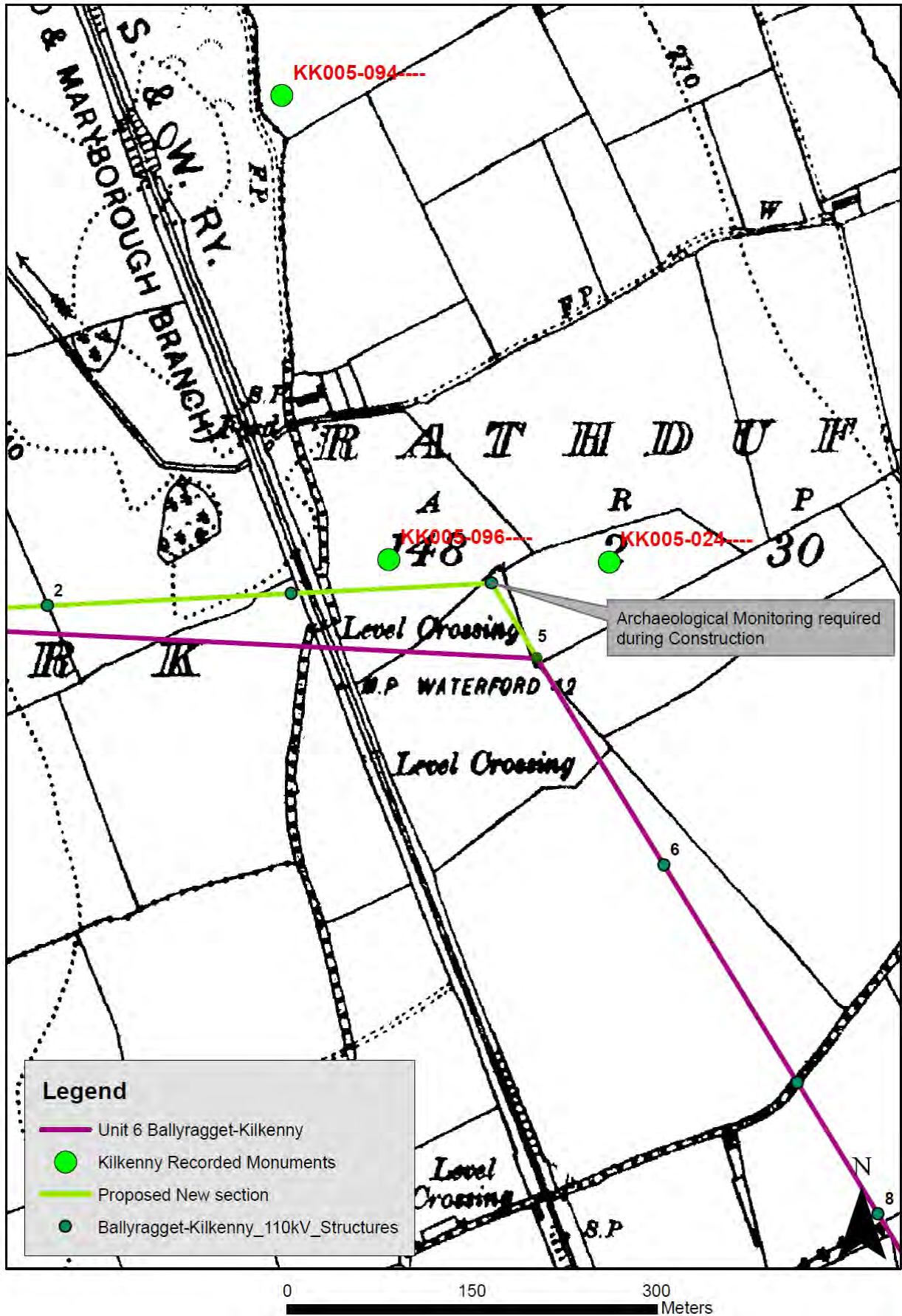


Figure 7.35 Recorded monuments KK005-096 and KK005-024



Plate 7.14 KK005-024 mound looking N indicated by arrow

KK010-003 Ringfort

This monument is located 21m from the nearest existing structure BK12 poleset. The ringfort is upstanding and is visible on all current editions of aerial photography and the 1st and 2nd edition OS maps. It appears to be a bi-vallate enclosure measuring approximately 48m in diameter. The field in which it is located was under crop on the day of survey. The RMP file describes the monument as follows: *'A roughly circular raised platform. No ditch but rough face of fort suggests the ditch may have been filled by digging away at the edge of the mound. Entrance to the E.* The proposed replacement poleset is located 17m from the monument. Given the proximity of the monument to the proposed works, it is recommended that the monument be temporarily fenced off prior to and during construction works and that an archaeologist be present on site during the re-positioning of the polesets.



Figure 7.36 KK010-003 ringfort on 2nd edition OS map (early 1900s)



Figure 7.37 KK010-003 ringfort on aerial photograph (2005)



Plate 7.15 BK12 in crop in relation to ringfort KK010-003 indicated by arrow

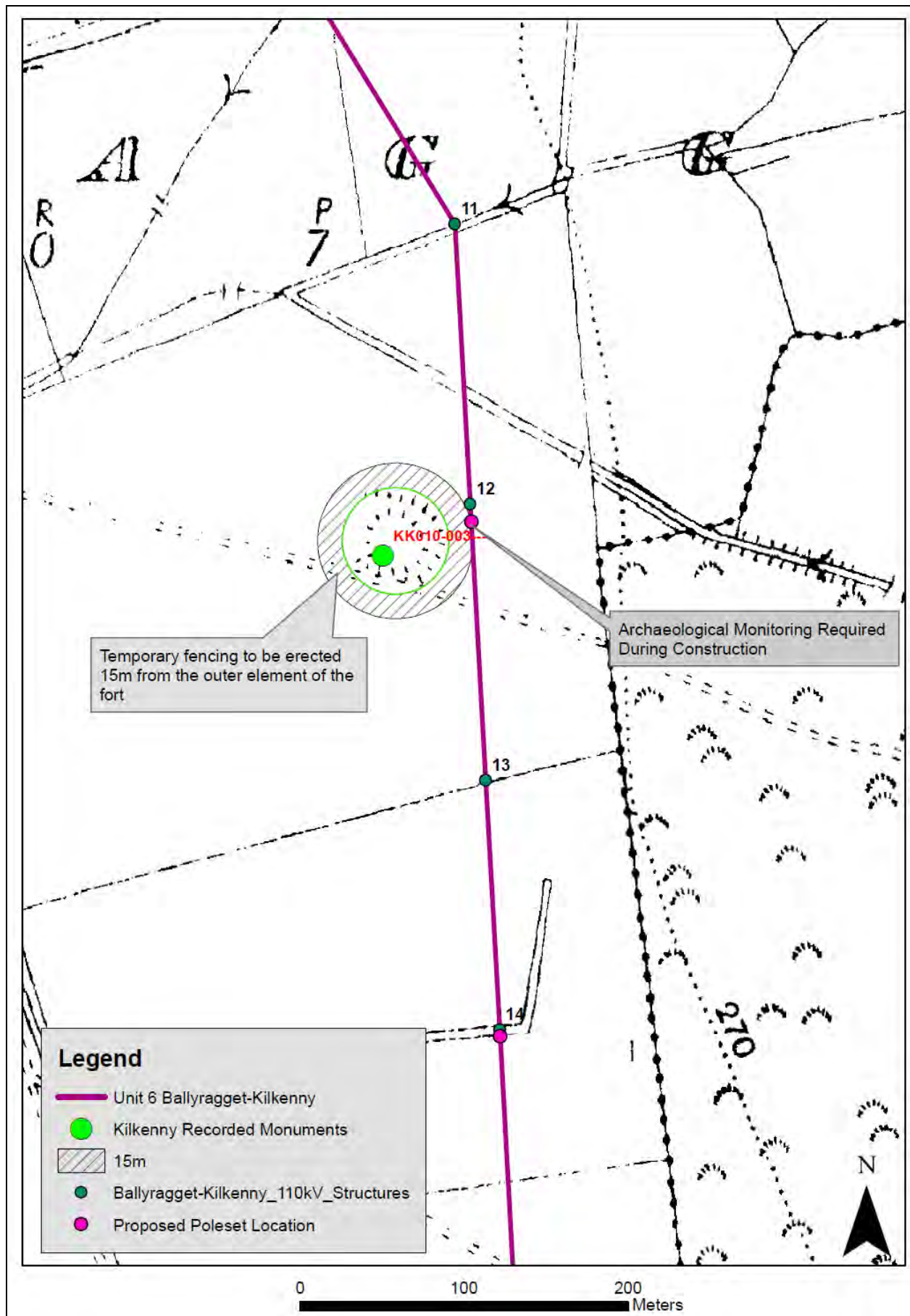


Figure 7.38 KK010-003 suggested buffer zone

KK010-183 Enclosure (Figure 7.39)

This enclosure does not appear on the 1st or 2nd edition OS maps or on current aerial photographs. There was no visible surface trace of this monument on the day of survey. A crop was being harvested on the day of assessment. It is located to the west of the existing line (53m from the centre point of the monument to the existing structure – angle mast BK19). As the outline of the site is not visible on the ground it is not possible to establish a buffer zone or fencing. It is therefore recommended that an archaeologist be present on site during the replacement of the angle mast structure BK19. The information in the file was limited and was described as follows: 'Enclosure, levelled, seen on aerial photo ITM 645668, 669804'.



Plate 7.16 'Site of' KK010-183 with poleset and angle mast (BK20 and BK19) in background

KK010-006 Ringfort (Figure 7.39)

According to the RMP file for this site *'the W half was destroyed by a gravel quarry, and the S edge was destroyed by a roadway. The top was destroyed by machine activity. Originally the site seems to have been a huge raised ringfort (c. 42m N-S by 20m E-W). Field Report 1987'*. This site is located approximately 70m to the east of the existing and proposed poleset BK20. A buffer zone of 20m should be established around this monument within which no ground works, storage of materials etc should take place.



Plate 7.17 KK010-006 looking ENE, indicated by arrow

KK010-159 Enclosure - (Figure 7.39)

This monument does not appear on the 1st or 2nd edition OS mapping. A slight circular feature is visible on an aerial photograph (1995) although this is not clear. Although it is located only 26m from the line it is not located close to any existing/proposed structures being 111m from BK 20 and 165m from BK21. No direct or indirect impacts are therefore anticipated. The information in the NMS files describes the site as follows: 'Aerial photo GB89.T.15) shows a cropmark of incomplete curvilinear enclosure defined by fosse: eastern portion destroyed by quarrying. The site was identified from aerial photos in 1980s, but put in wrong place on map'. Enclosure, grid ref ITM 645685, 669541 –corrected 23 Jan 2012.

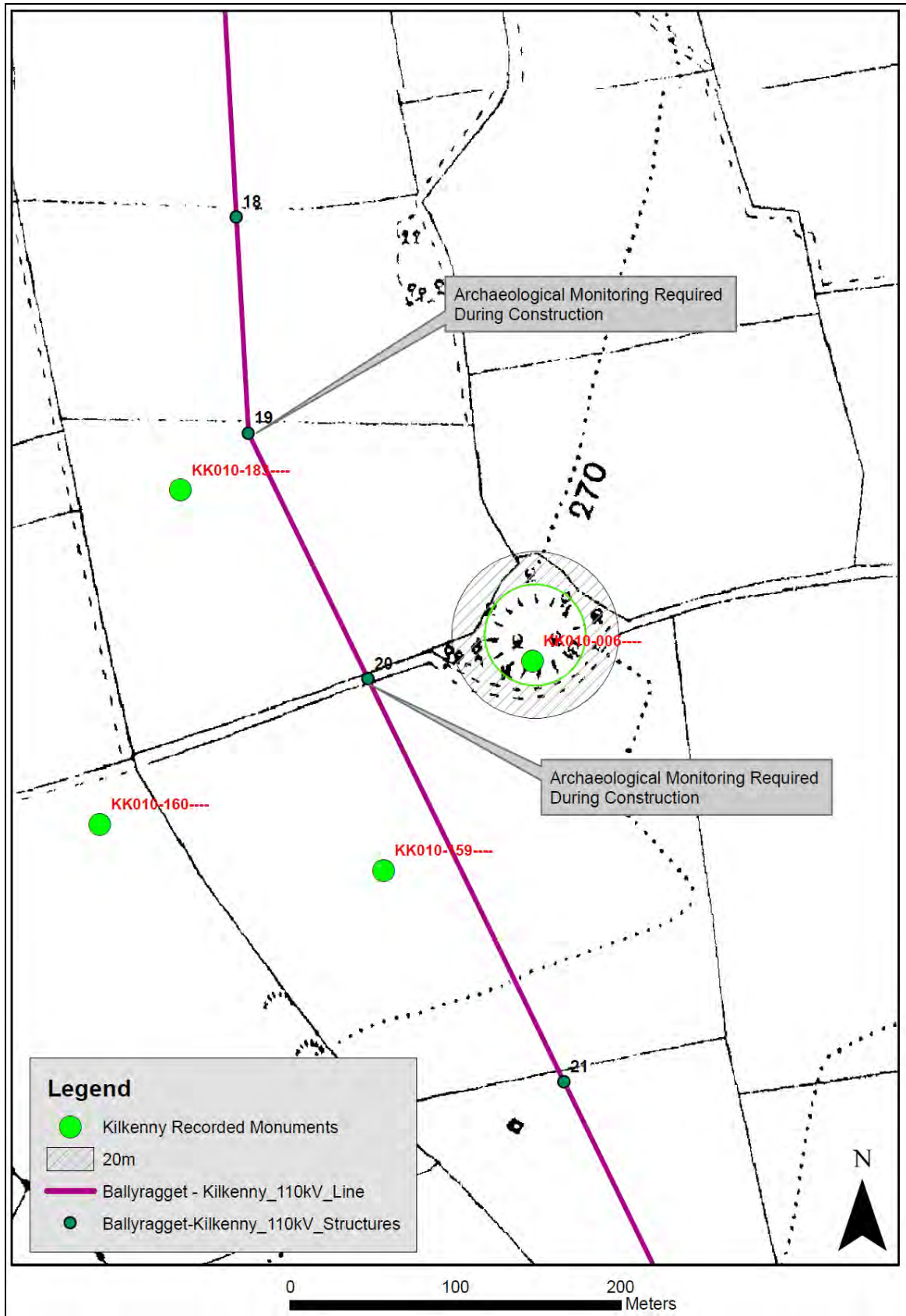


Figure 7.39 KK010-183, KK010-006 (with recommended buffer) and KK010-159

KK010-141 Enclosure (Figure 7.40)

This enclosure does not appear on the 1st or 2nd edition OS maps although clearly appears on a 1995 edition aerial photograph. It measures approximately 43m in diameter and has an entrance to the south. The existing line extends over the eastern ditch of the enclosure but no structures are located within or adjacent to the monument. The nearest structure BK24 is located c. 51m to the north of the enclosure in the same field. There is no visible surface trace of this monument on the ground which was confirmed by field assessment. It is recommended that an archaeologist monitor all ground disturbance associated with the replacement of poleset BK24 in this field. This is to ensure the adequate protection of the archaeological resource. The NMS file information describes the site as follows: 'Enclosure- marked possible change to definite (14/01/2009), clearly seen on aerial photo where the star on archaeology.ie is marked. Plough levelled enclosure seen as cropmark of circular enclosure defined by a fosse with an entrance facing south'.

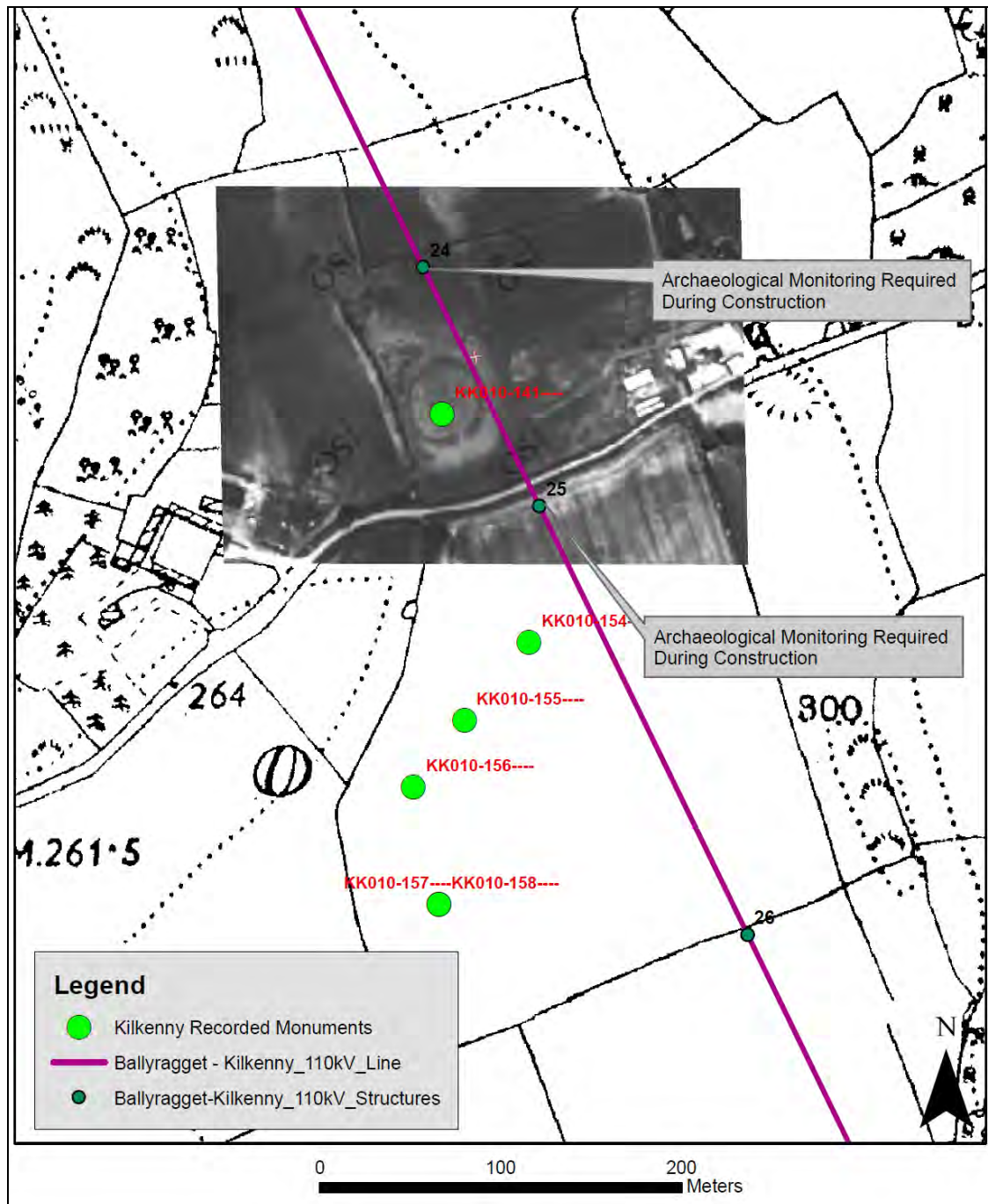


Figure 7.40 KK010-141 levelled enclosure and KK010-154



Plate 7.18 'Site of' levelled enclosure KK010-141 and BK24 looking NW

KK010-154 Ring-ditch Figure 7.40

This monument has no visible surface trace and the field has been extensively ploughed. It is located to the west of the existing line and c. 70m south of poleset BK25. As the monument has no visible surface a buffer zone or temporary fencing cannot be constructed. An archaeologist should monitor all ground works associated with the replacement of poleset BK25 in the same field, particularly given the presence of a number of additional ring-ditches in the same field further to the south-west. The NMS describes the site as follows: 'New monument south of SMR 141- ring ditch. Located in field to south of star on archaeology.ie (on other side of east-west running road. Ring ditch and pit alignment along field in line with smr 141'.



Plate 7.19 'Site of' KK010-154 in relation to BK26 looking South

KK014-040001 Enclosure (Figure 7.41)

This enclosure has no visible surface trace (Plate 7.20) and is located c. 100m to the south-west of the nearest structure BK62. It does not appear on the 1st or 2nd edition OS maps and is not apparent on any aerial photographs examined. No impacts on this monument are therefore anticipated.

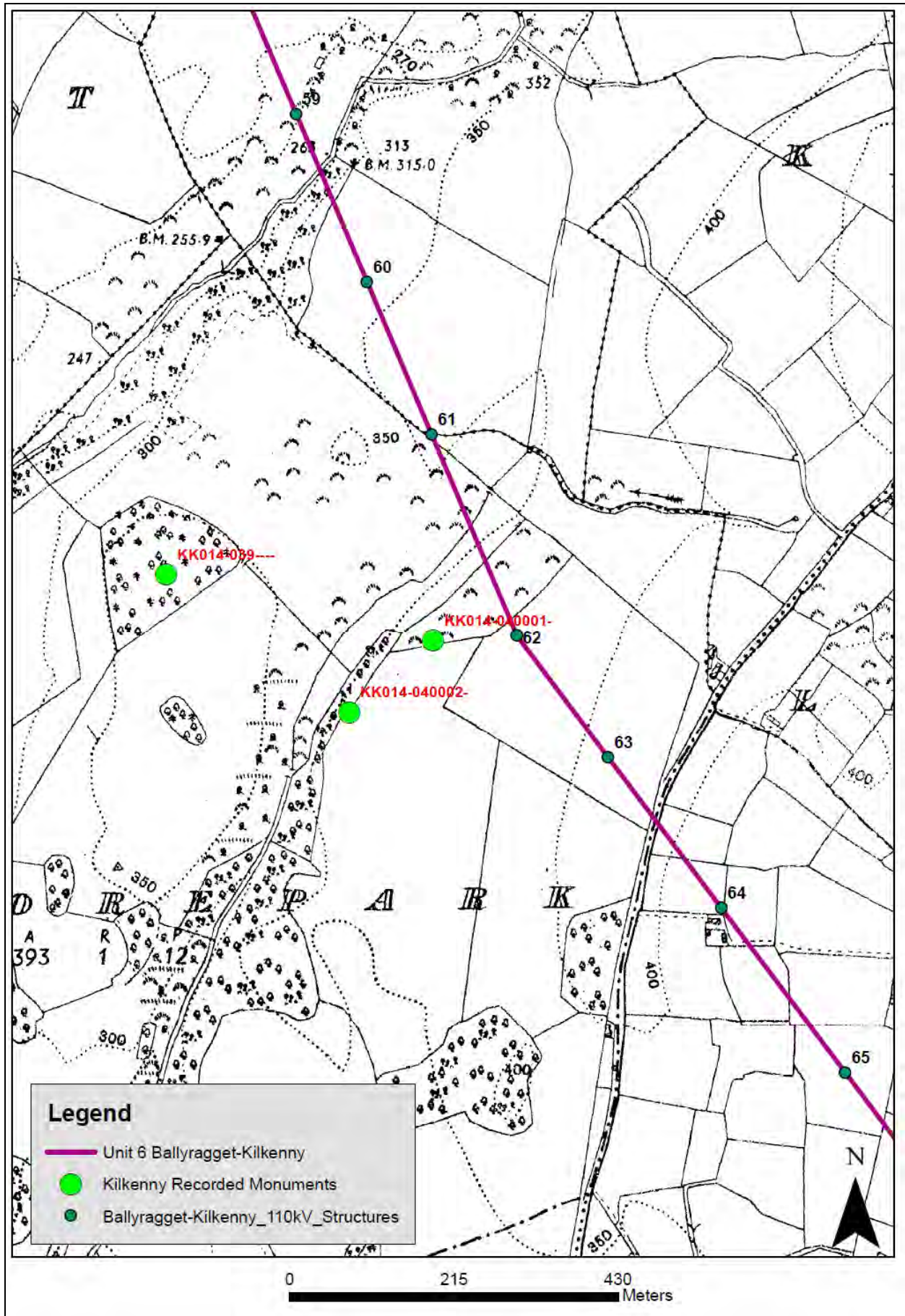


Figure 7.41 KK014-040 in relation to Unit 6



Plate 7.20 'site of' KK014-040-001 looking west

KK014-068 Ringfort (Figure 7.42)

This ringfort is still extant and densely overgrown. A farm passageway is located immediately to the east of the ringfort. It is marked on both the 1st and 2nd edition OS maps and is visible on aerial photography as a sub-circular enclosure defined by trees. This monument was visited as part of the assessment process and views to and from the fort from the existing line were noted. The nearest structure is located 85m to the north-west of the ringfort and both are inter-visible. This has resulted in a minor visual impact. The replacement of poles in this field will not result in any significant visual impact and no direct impacts will occur. An archaeologist should monitor ground works associated with the replacement of poles in this field. The file in the NMS describes the site as follows: 'Oval raised platform (dia 40m e-w, 30m n-s) bounded by earthen lip bank. Base of fosse 2m wide 1.2m deep. No visible entrance or internal features. Visit 27-10-87 note site very overgrown, no visible features. On terrace on w side of n-s valley. V wet pasture.



Plate 7.21 Ringfort KK014-068 looking south-east from structure poleset to NW

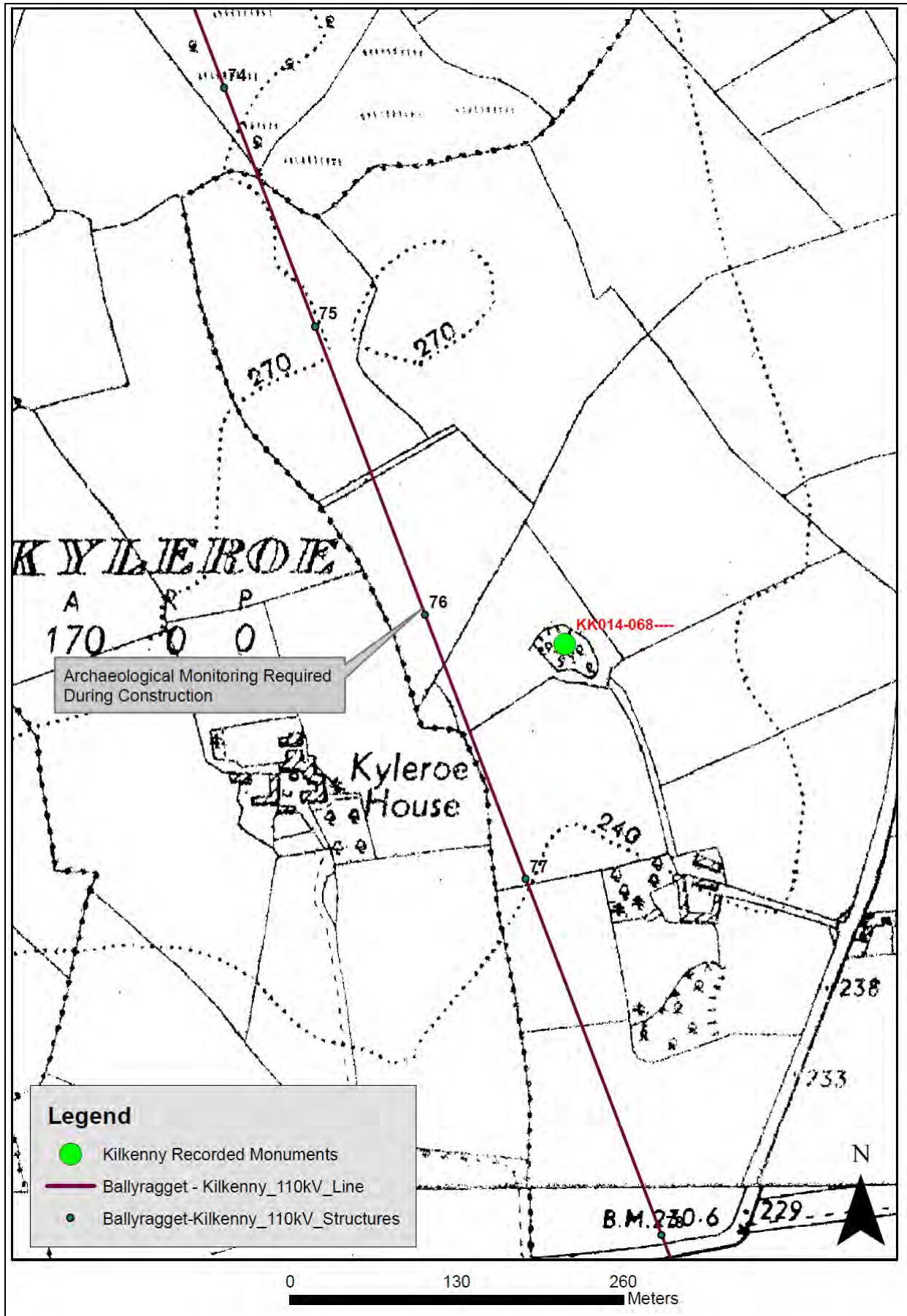


Figure 7.42 KK014-068 in relation to Unit 6

7.3.1.6.4 Construction access tracks and other working areas in the vicinity of Recorded Monuments

BK4 Angle mast

The proposed access tracks, guard points and stringing areas associated with BK4 angle mast are located within close proximity to a levelled Recorded monument at Rathduff Td. (KK005-096 enclosure) and an extant mound KK005-024. The proposed guard point and stringing area avoid the recorded monuments and the proposed construction track does not traverse the area of the recorded monuments. An archaeologist will be present during ground works associated with the construction of the angle mast in this location and this monitoring should also extend to the movement of construction traffic to negate any potential impacts on the sub-surface sites.



Figure 7.43 Construction access and other working areas in vicinity of Recorded Monuments KK005-096 and KK005-024

BK12

The proposed construction access track and working area are proposed to be confined to under the proposed line and do not traverse the Recorded Monument KK010-003. Archaeological monitoring at the construction stage and fencing off of the ringfort in advance of construction are recommended (see also Figure 7.38 above).

BK13, 14 and 15

Access to these structures will be via an existing track along the old railway line (disused) and in this regard there will be no impact on the group of 4 Ring Ditches (KK010-172, 176-178) located to the west of the railway track.

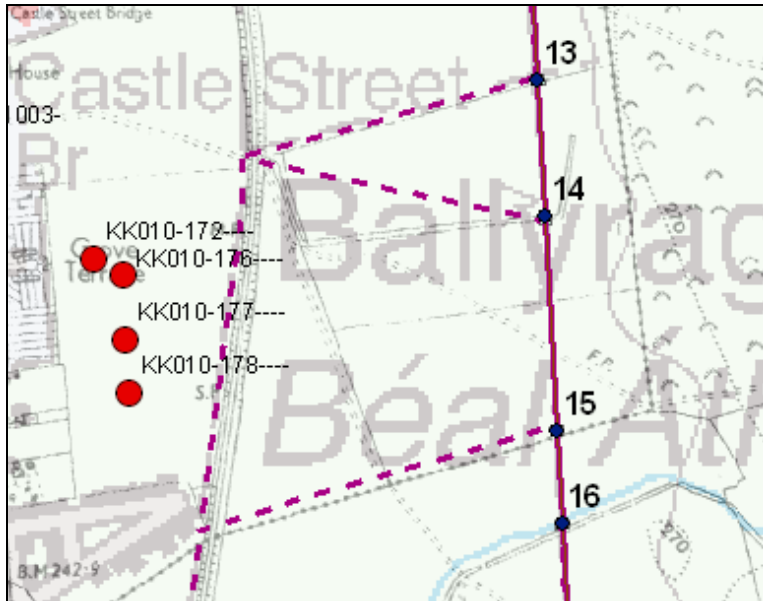


Figure 7.44 Construction access track in vicinity of Recorded Monuments

BK19-BK21

The proposed access tracks and other working areas are located within an area containing three Recorded monuments KK010-183 adjacent to BK19 and associated stringing areas, KK010-160 adjacent to construction track (existing passageway) and KK010-159 through which proposed construction track traverses (also existing farm passageway). KK010-183 is a levelled ringfort with no above ground trace. The puller/tensioner machines will not impact on the monument as no below ground disturbance is required for stringing. An archaeologist will monitor groundworks and movement of machinery near to BK19 to negate any potential impacts however. Although the proposed access track to BK21 traverses the centre of a Recorded Monument KK010-159 an existing farm passageway has already been constructed in this location. Furthermore the monument is levelled with no above ground element surviving.



Figure 7.45 Proposed construction access tracks and stringing areas in vicinity of Recorded Monuments

BK24-26

Access to BK24 has avoided traversing within close proximity to the levelled enclosure KK010-141 and no impacts are anticipated in this regard. The same applies to the group of recorded monuments to the west of the proposed uprate to the line (KK010-154-159). No proposed tracks will traverse this area and therefore no impacts are anticipated.

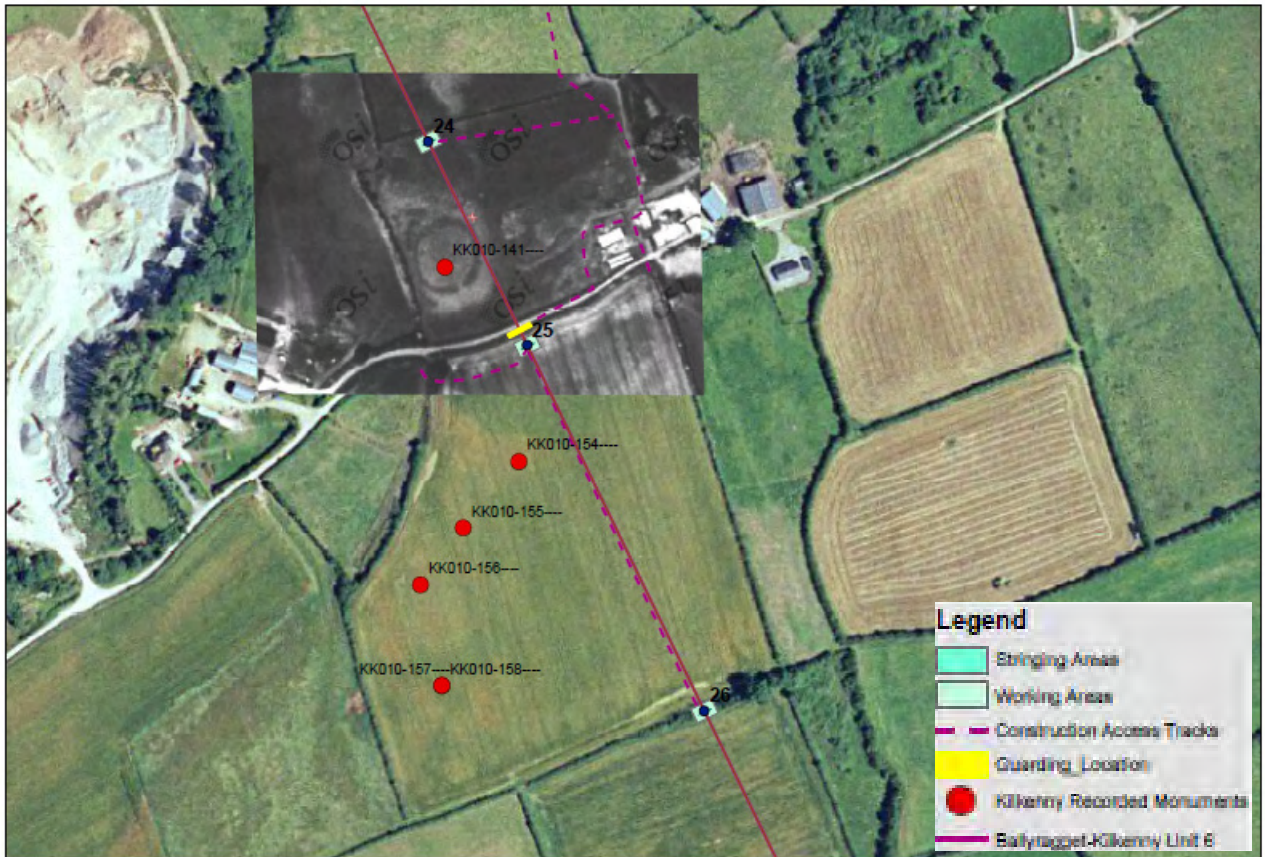


Figure 7.46 BK24-26 associated access tracks in relation to Recorded Monuments

BK62

The proposed access track to BK62 which is located within the vicinity of Recorded Monument KK014-040 (levelled enclosure) avoids traversing the site of the ringfort and in this regard no impacts are anticipated. An archaeologist should monitor the movement of machinery in this area however.

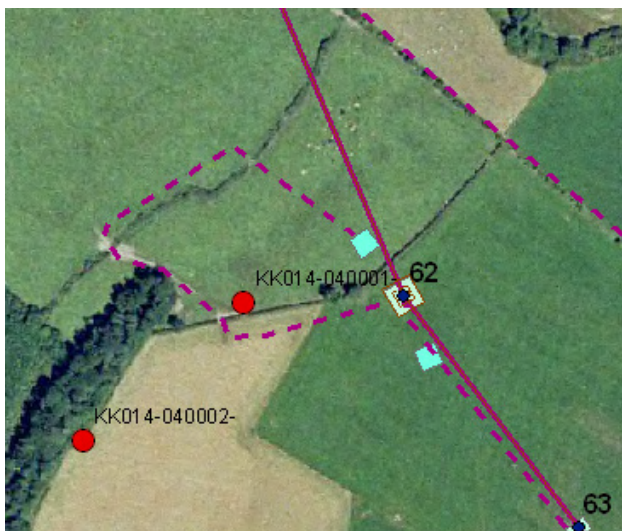


Figure 7.47 Proposed construction access and stringing areas in relation to Recorded Monuments

BK75 and BK76

The proposed construction access track to these structures traverse within close proximity to an upstanding ringfort KK014-068. Having examined the site, a rough passageway exists between the eastern limit of the fort and the nearest field boundary and therefore this will be utilised for construction

traffic. The ringfort should be fenced off with temporary fencing in advance of site works and an archaeologist present to monitor the movement of construction traffic.

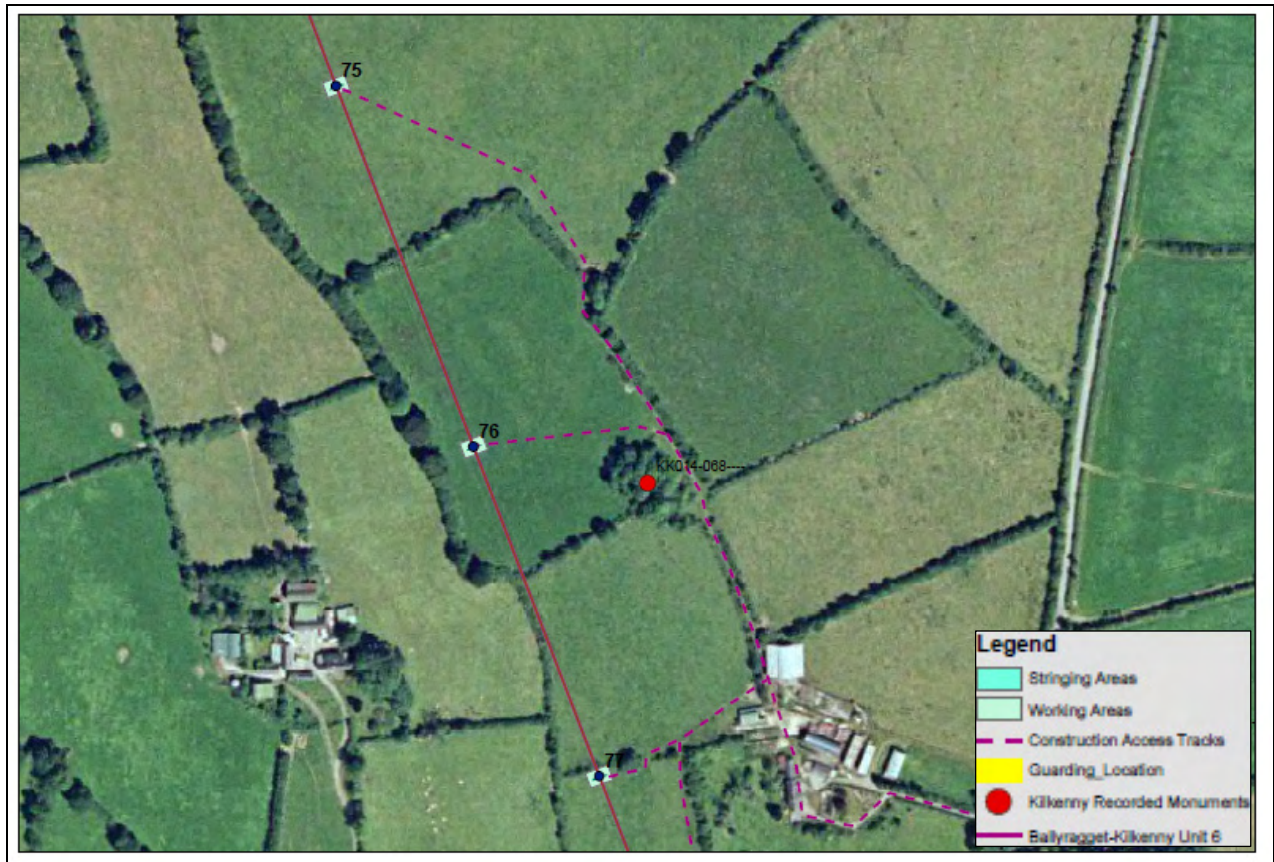


Figure 7.48 Proposed access tracks to BK76 and BK75 and Recorded Monument KK014-068

7.3.1.6.5 Newly Detected sites

No new sites of archaeological potential were detected along the route of the Ballyragget-Kilkenny line (Unit 6).

7.3.1.7 Unit 7 - A new 110kV bay in the existing Kilkenny 110kV station

The addition of a new bay at the Kilkenny substation has no archaeological implications either direct or indirect (visual). The substation is existing and the addition of an additional bay is not likely to detract from the archaeological landscape of the area. Furthermore the substation is located adjacent to a newly constructed road and the context of this landscape has changed significantly.

7.3.1.8 Unit 8 - Modifications to existing Athy-Portlaoise 110kV line

The modification is the retrofitting of earthwire onto the existing Athy – Portlaoise 110kV line from Coolnaback towards Athy (AP98 to AP85) for 2.32km and from Coolnaback towards Portlaoise (AP 99 to AP105) for 1.29km. To achieve this all structures will be replaced by similar structures except for structure AP105 which is a poleset and will be replaced with a lattice steel angle mast.

7.3.1.8.1 National Monuments

A study zone of 1km on either side of the existing line where it is proposed to replace the 31 polesets and 2 angle masts was considered appropriate to assess any potential National Monuments which may exist within close proximity to the line (Figure 7.49).

No National Monuments, either in State ownership or Local Authority Ownership are located within this 2km corridor along the Athy-Portlaoise section of line which is due to be replaced.

7.3.1.8.2 Recorded Monuments

Only 2 recorded monuments are located adjacent to the existing line which is due to be replaced with earthwire structures. The nearest structure which is proposed to be replaced is the existing poleset AP105 which will change to an angle mast. The nearest recorded monument to this structure is LA018-066 and is located c. 335m to the north (Table 7.13). Both recorded monuments are levelled leaving no visible surface trace and were discovered through aerial photography in 1990. Visual impact will not occur therefore given the levelled nature of these sites. Pre-development archaeological testing of AP105 should take place as per the recommendations of the DAHG regarding all masts along the adjacent proposed 400kV line (Unit 2).

| SMRS | E | N | DESCRIPTION | TOWNLAND | DISTANCE TO LINE |
|-----------|--------|--------|--------------|-------------|--------------------------|
| LA018-066 | 252902 | 194284 | Moated site | LOUGHTEEOG | 335m to AP105 angle mast |
| LA018-068 | 252777 | 194376 | Field system | MONEY UPPER | 460m to AP105 |

Table 7.13 Recorded monuments adjacent to Unit 8

Field System LA018-068

This monument is described in the NMS files as follows: *Aerial photograph (GB90.BL.26) shows cropmarks of a sequence of fosses defining a field system with curvilinear and rectilinear components, forming part of an extensive field system (LA018-067) integrated with a rectangular enclosure, probably a moated site (LA018-066). First recorded as a positive cropmark in July 1990.*

Moated Site LA018-066

This monument is located in the same field as an extensive field system (LA018-067). It is described in the NMS files as follows; *'Aerial photograph (GB90.BL.26) shows cropmark of a rectangular enclosure with an entrance facing north-east leading into an associated rectilinear field system (LA018-067). First recorded as a positive cropmark in July 1990. Forms part of an extensive cropmark landscape. This monument is faintly visible on the background aerial photography on the ASI website.*

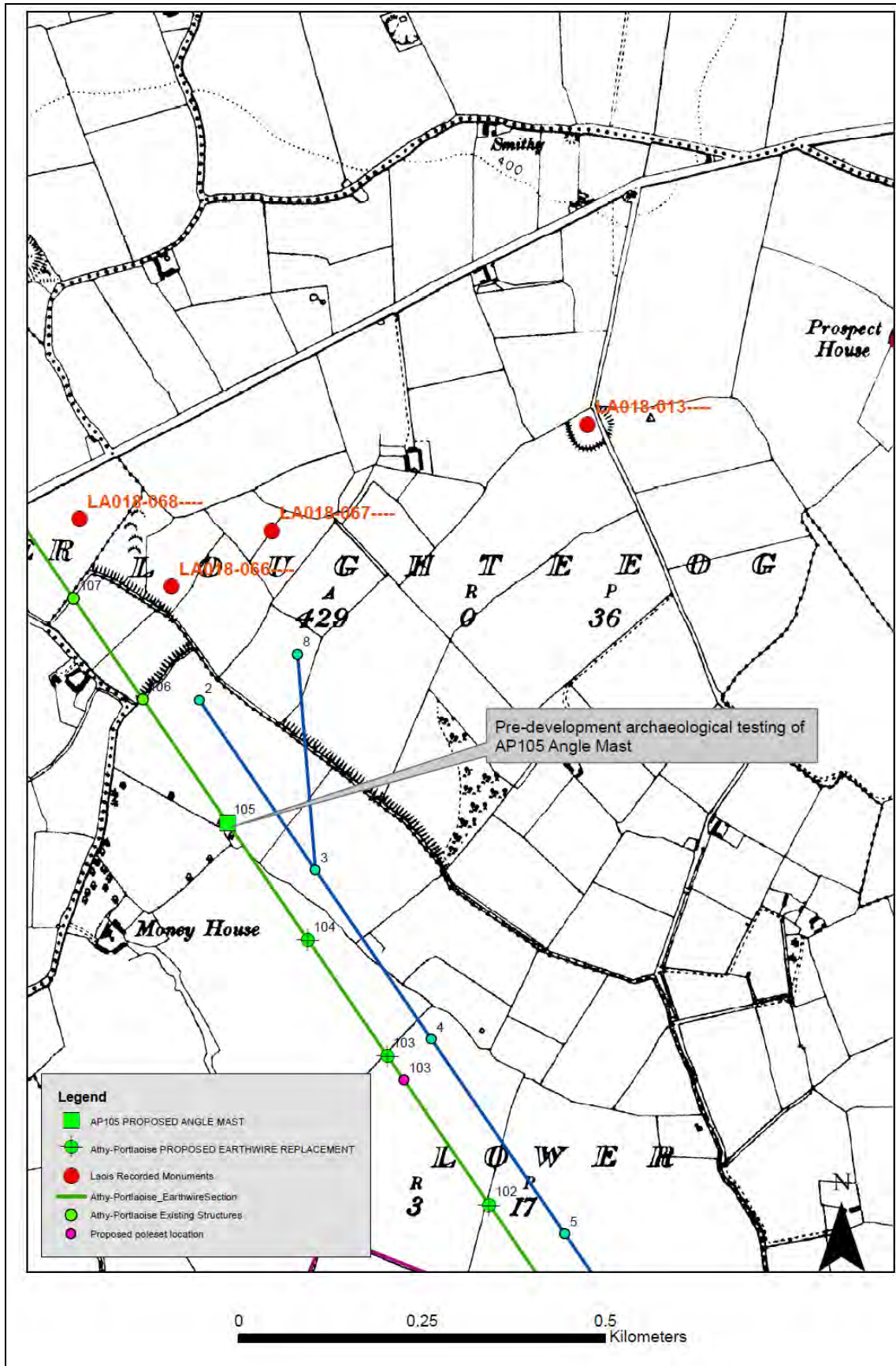


Figure 7.49 Recorded Monuments adjacent to Unit 8

7.3.1.8.3 New sites encountered during field work / aerial photography

No new sites of archaeological potential were encountered during field work. A crop marked field system was detected through an examination of aerial photography in Money Lower townland and is described in Section 7.3.1.2.3 above. Given the proximity (38m) of the proposed works to this newly recorded possible field system, an archaeologist should monitor the replacement of polesets AP101 and AP102.

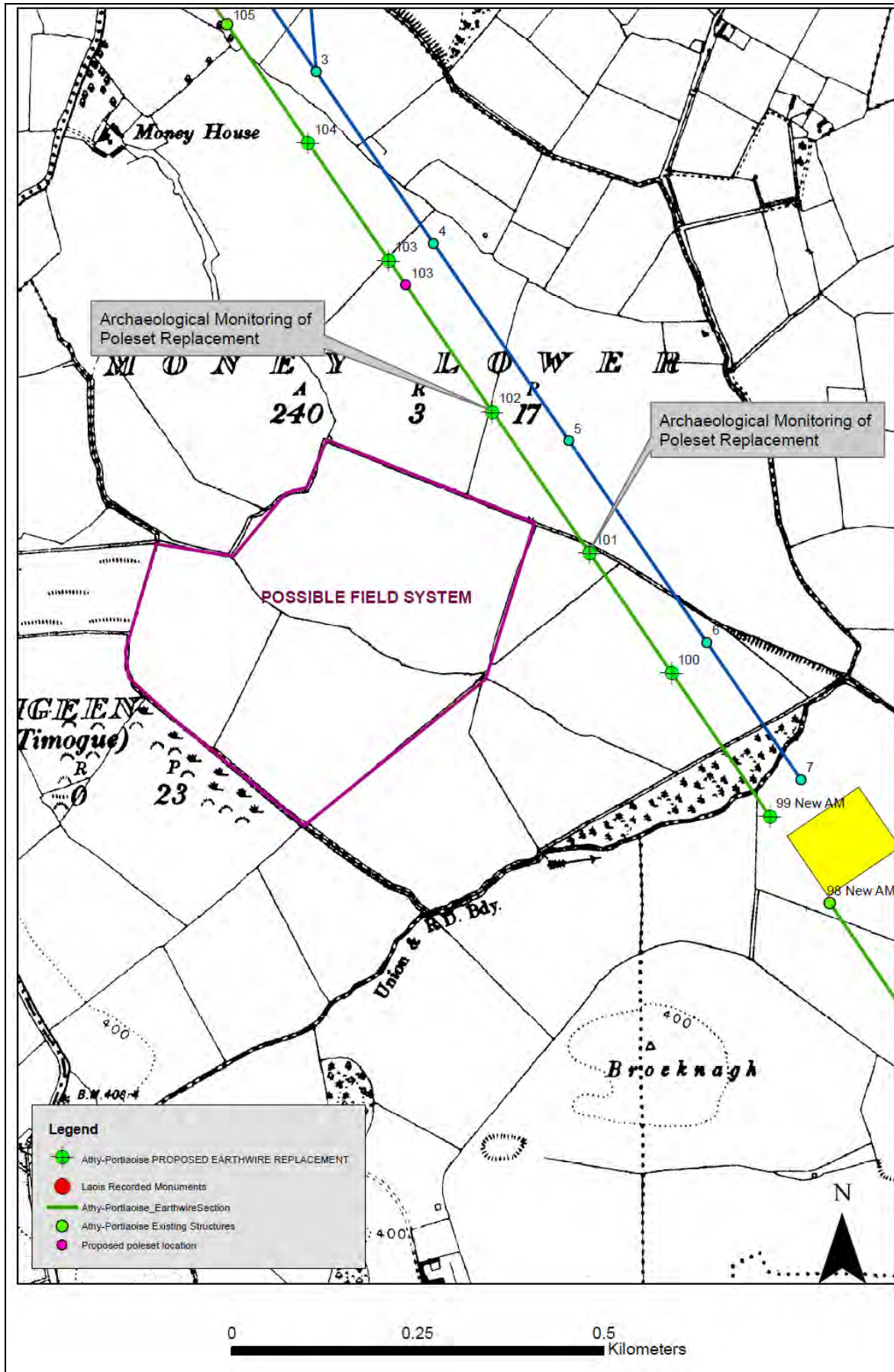


Figure 7.50 New possible field system adjacent to Unit 8

7.3.1.8.4 Proposed Construction Access Tracks and Other working areas

Access to AP101 and AP102

The portion of the proposed access track which is adjacent to the newly recorded field system at Money Lower is existing after which construction traffic will traverse fields. No impacts are anticipated in this regard.

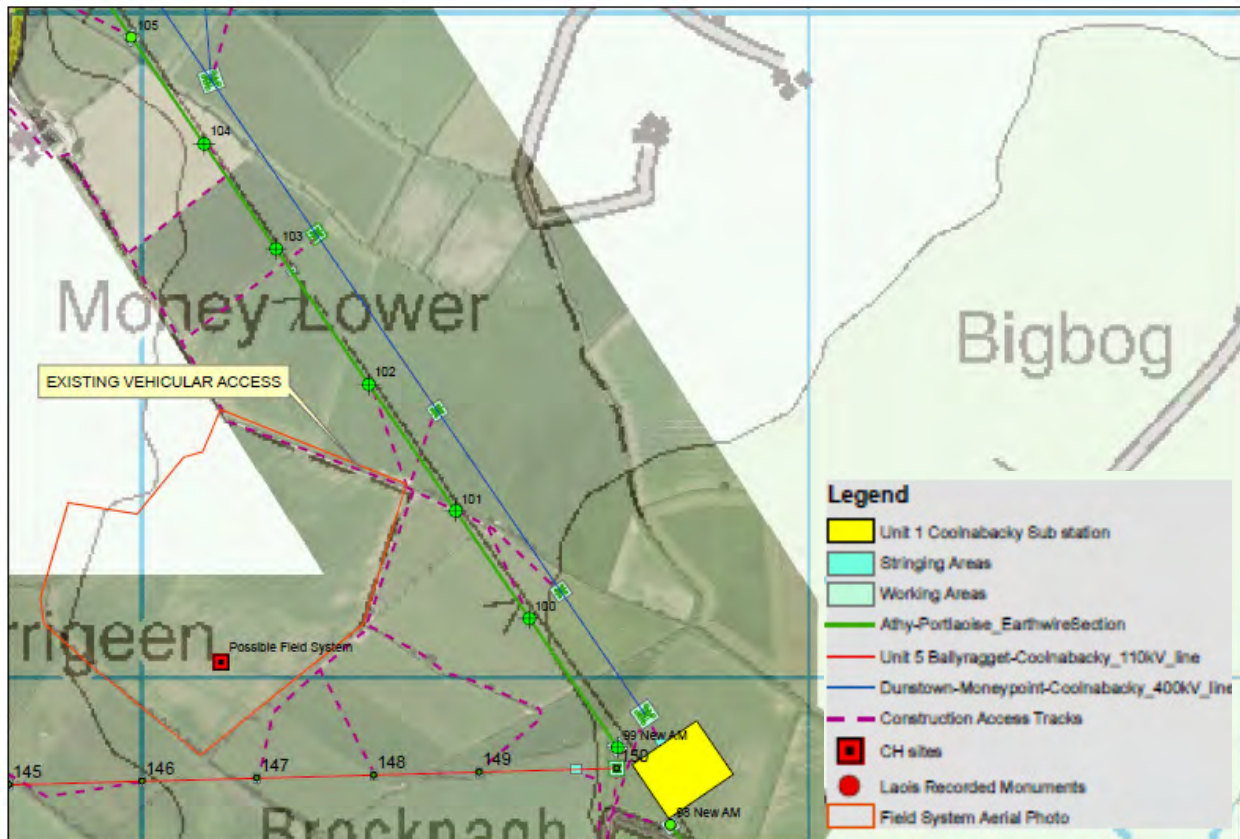


Figure 7.51 Proposed access tracks in vicinity of newly recorded field system

7.3.2 ARCHITECTURAL AND CULTURAL HERITAGE

Architectural and cultural heritage includes protected structures (subject to statutory protection), structures listed in the National Inventory of Architectural Heritage (hereafter NIAH) but also includes items mainly of local heritage value which have been recorded during field surveys and from an examination of cartographic sources such as 1st and 2nd edition OS maps and aerial photography. Only material aspects of cultural heritage, i.e. built heritage (bridges, limekilns, historic demesnes, etc.) were assessed for potential impacts.

Sources:

The NIAH buildings are available for download in GIS from www.buildingsofireland.ie.

The protected structures list for County Laois was provided (in excel format) by the Laois Heritage Officer. The list accompanying the Development Plan was also consulted. The protected structures to the NW of Kilkenny were provided by Kilkenny County Council (Heritage section) although it was indicated that the list was not complete. For this reason the list of protected structures accompanying the County Development Plan (2008-2014) was also consulted and searched by townland name as no other locational information is provided in the list.

7.3.2.1 Unit 1 - New 400/110kV GIS substation at Coolnabackey townland, Co. Laois

7.3.2.1.1 Protected Structures

Protected structures which are located within close proximity to the proposed substation are included here. The legislation in relation to protected structures has been addressed above. No protected structures are located within close proximity to the proposed Coolnabackey substation. The nearest structures (RPS 623, 378, 888 and 624) are located just under 2km away in Timogue, to the south-east of the substation site.

7.3.2.1.2 Structures listed in the NIAH and Garden Surveys

No structures listed in the NIAH are located within close proximity to the proposed Coolnabackey substation. The nearest structures are located in Timogue which are also the protected structures referred to in Section 7.3.2.1.1.

7.3.2.1.3 New Items of cultural heritage

One new item (lime kiln) of cultural heritage value was noted within relatively close proximity to the proposed substation site (c. 700m) (Figure 7.52). The kiln is well preserved and fenced off and will not be impacted by the proposed substation site. It is located in a green field adjacent to a passageway which leads to a quarry / gravel-pit. It represents local building traditions and industrial heritage and is of local significance. No other items of cultural heritage value were recorded in the vicinity of the substation.

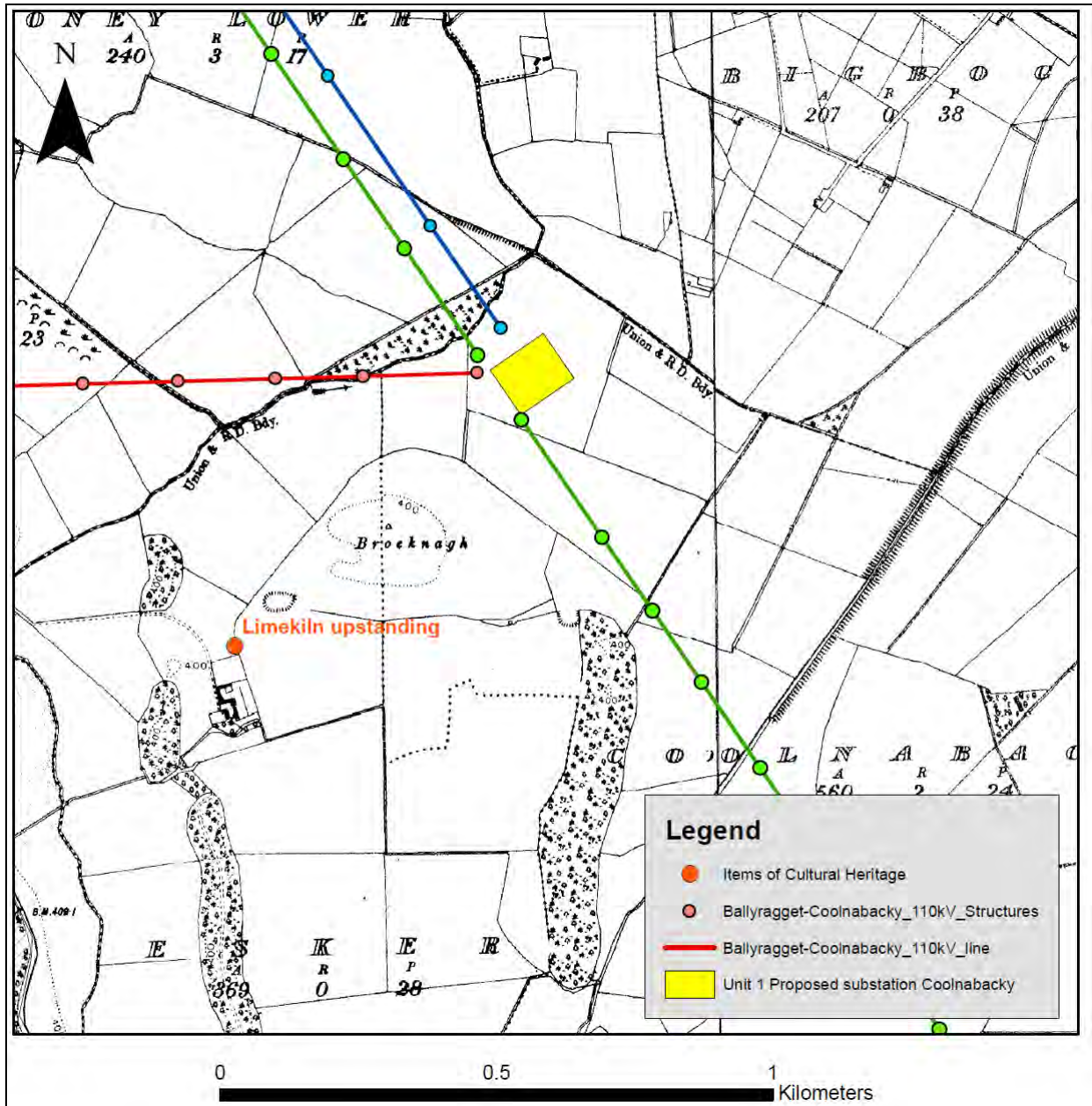


Figure 7.52 Lime kiln Unit 1

7.3.2.1.4 Construction Access Tracks and Other working Areas

The aforementioned limekiln is located to the east of the existing passageway but will not be impacted on by the movement of machinery along the construction access track.

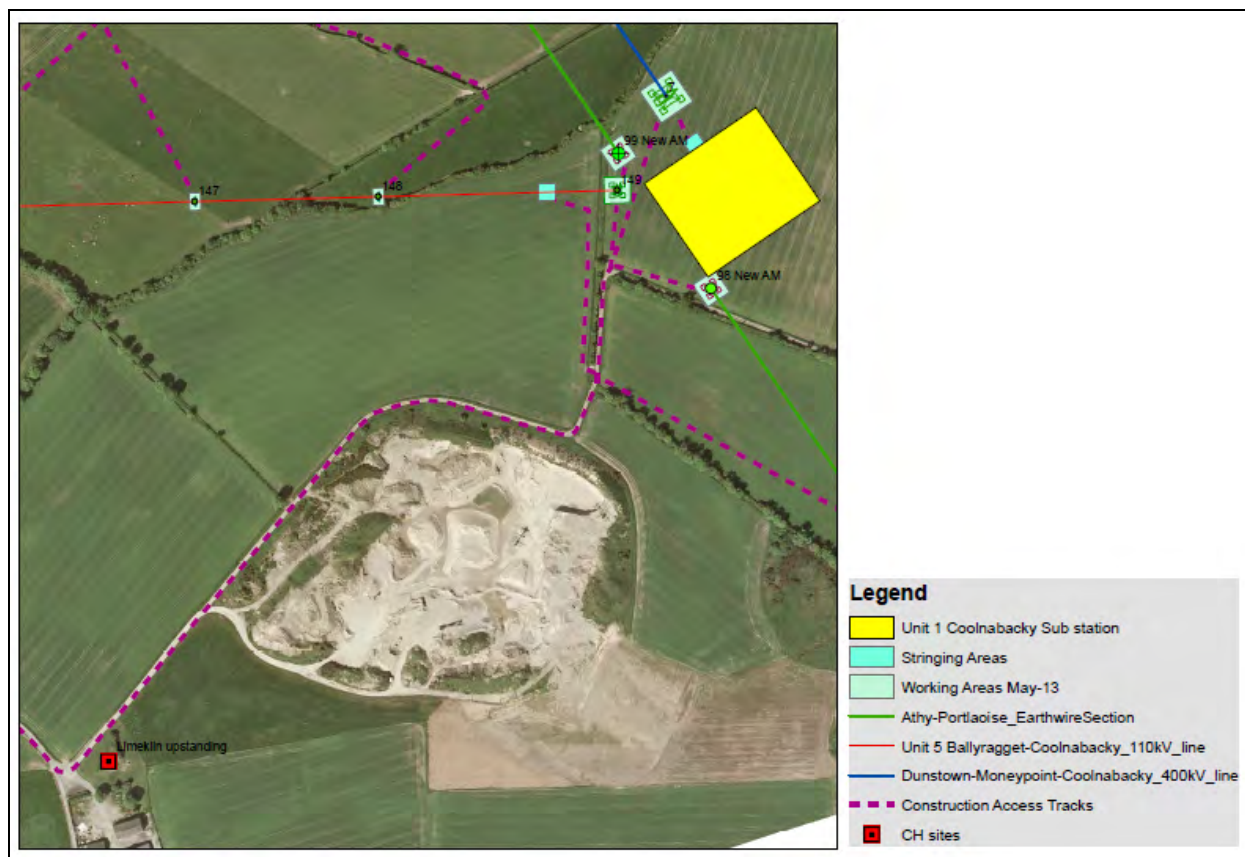


Figure 7.53 Proposed construction access tracks and other working areas, Unit 1

7.3.2.2 Unit 2 - New connection to Coolnaback from the existing Moneypoint-Dunstown 400kV line

7.3.2.2.1 Protected Structures

No protected structures are located within close proximity to this element of the project. The proposed 400kV line will not traverse any curtilages associated with protected structures. The nearest protected structure is located 1.6km to the north-west in Lamberton Demesne. According to the description in the RPS, the estate has been cleared and the main house demolished. The protected structure refers to a Gate Lodge (RPS 617) which dates to 1880. The structure will not be impacted by the proposed 400kV line.

7.3.2.2.2 Structures listed in the NIAH and Garden Surveys

As above, no structures listed in the NIAH are located within close proximity to the proposed 400kV line. The nearest structure is the Gate Lodge at Lamberton (also a protected structure –see above). Lamberton is also listed in the desktop garden survey and described as follows '*The structural footprint of the designed landscape shown on the 1836 - 1846 Os map is visible in aerial photography but features are badly degraded*'.

7.3.2.2.3 Items of cultural heritage note

No new items of cultural heritage value were noted along the route of the proposed 400kV line. This area is largely open agricultural land which has been extensively ploughed therefore the potential for detecting new structures is low. While access was not granted to those lands (with the exception of the substation site) an analysis of OS mapping dating to the 1800s and 1900s did not reveal any additional structures such as lime kilns etc.

7.3.2.3 Unit 3 New connection to Coolnabacky from the existing Athy-Portlaoise 110kV line

This connection will be made by very short lengths (100-200m) of underground cable adjacent to the substation. Two new line cable interface masts will be required to facilitate this connection. No structures will be impacted by this proposal.

7.3.2.4 Unit 4 - A new 110kV / 38kV / MV substation in Ballyragget, Co. Kilkenny

7.3.2.4.1 Protected Structures

No protected structures will be impacted by the proposed substation at Ballyragget as no such structures are located within the immediate vicinity of the site. The nearest structure is Ballyconra House RPS C312 which is located approximately 800m to the west of the proposed substation site. The house has now been largely obscured by a nearby factory.

7.3.2.4.2 Structures listed in the NIAH and Garden Surveys

Ballyconra house is also listed in the NIAH (12400402) and Garden Survey and is described as follows: '*A well-appointed substantial house representing an important element of the early eighteenth-century architectural heritage of County Kilkenny possibly originally having associations with the nearby Ballyconra Mills indicated on archival editions of the Ordnance Survey but of primary significance for the connections with the Butler Family, Viscounts Mountgarret late of Ballyragget Castle (1495) together with the Cahill family. Elegantly composed with Classically-proportioned openings centred on a doorcase displaying high quality stone masonry the house has historically been well maintained to present an early aspect: of particular importance are the internal details exhibiting expert craftsmanship including plasterwork accents of artistic design significance together with ornamental timber joinery. Positioned on a slightly elevated site the house makes an important impression in a landscape dominated by late twentieth-century industrial ranges.*

The garden survey notes that few features of the designed landscape shown on the 1836 - 1846 OS map are visible in aerial photography. Much of the site has been obscured by the factory development.

No impacts will occur in this regard.

7.3.2.4.3 Items of cultural heritage note

Lime kiln 10 at Moatpark (NGR 244270, 172222)

A lime kiln is marked on the 1st and 2nd edition OS map in the adjacent field to the north-west of the proposed substation site (Figure 7.54 and Figure 7.55). The kiln or site of the kiln will not be impacted by the proposed development. It is not visible from the area of the proposed substation.

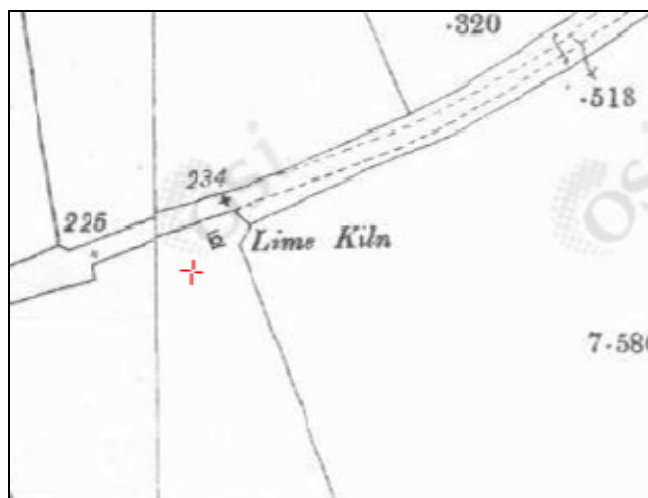


Figure 7.54 Extract from 2nd edition OS map showing lime kiln adjacent to Unit 4

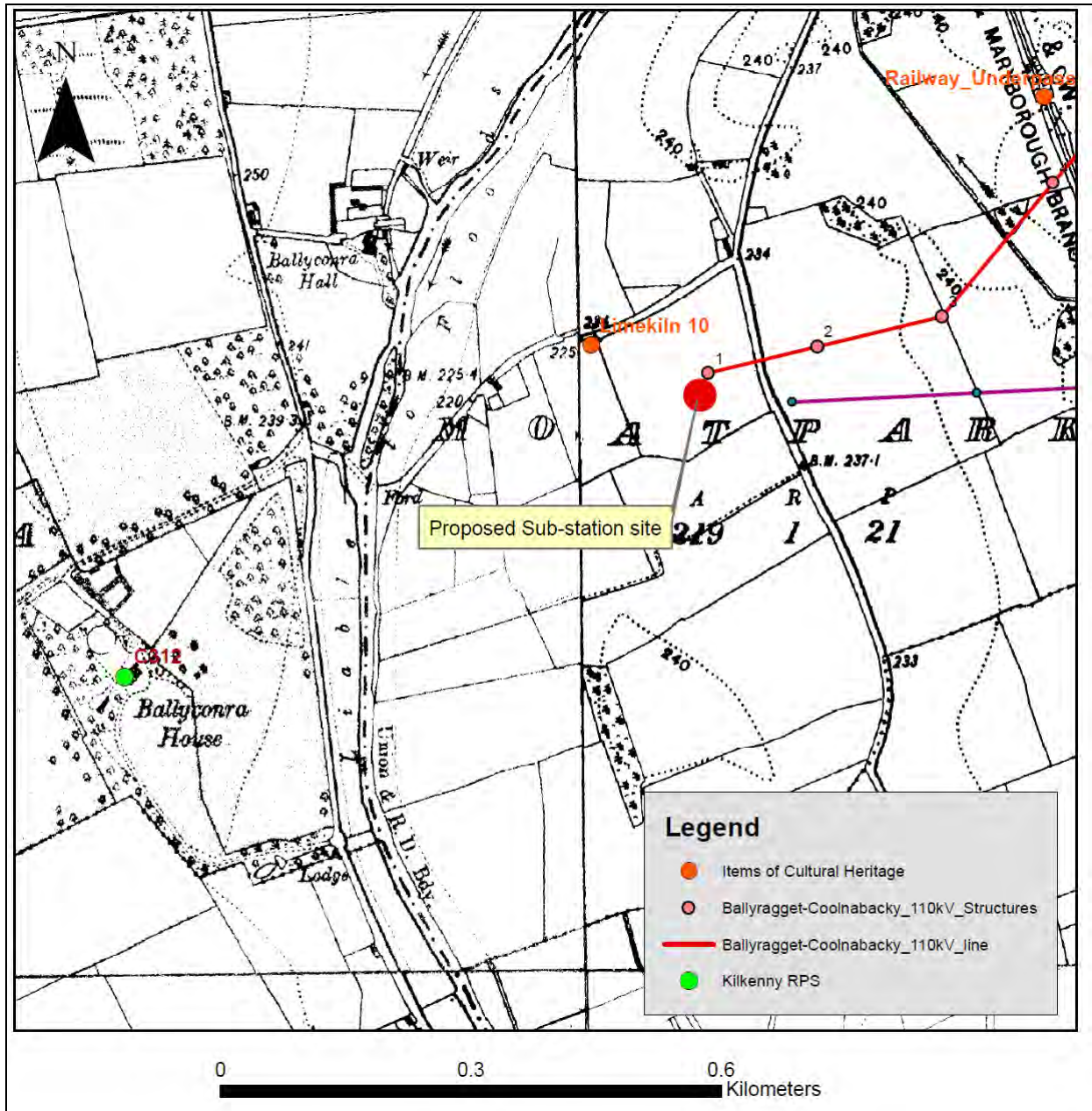


Figure 7.55 Unit 4 new lime kiln 10 and RPS C312

7.3.2.5 Unit 5 - A new 110kV overhead line between Ballyragget and Coolnaback

7.3.2.5.1 Protected Structures

No known protected structures are located within close proximity to the proposed overhead line between Coolnaback and Ballyragget. Figure 7.56 shows the protected structures for County Laois and Kilkenny.

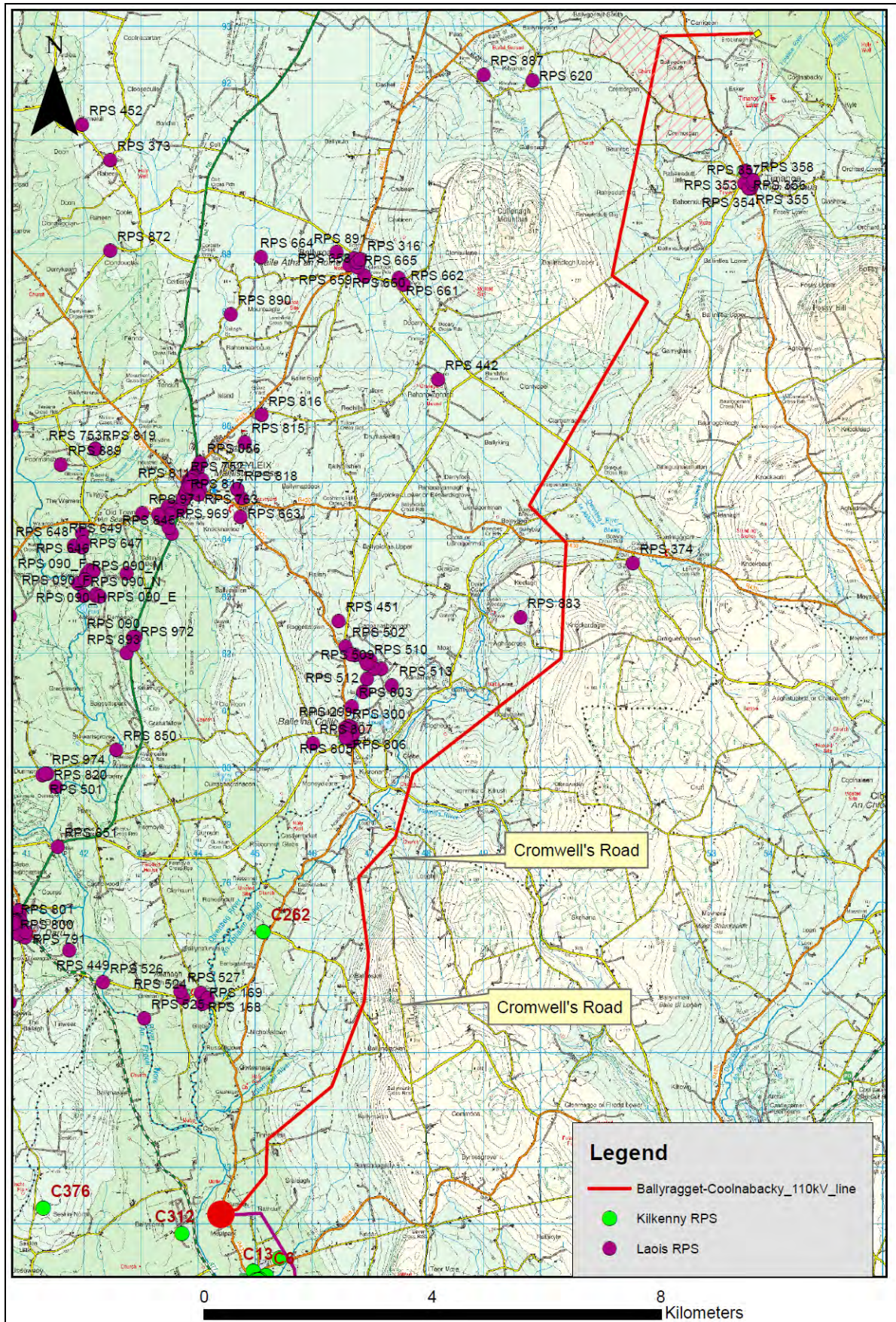


Figure 7.56 Protected structures Laois-Kilkenny

7.3.2.5.2 Structures listed in the NIAH and Garden Surveys

No structures listed in the NIAH for Counties Laois or Kilkenny are located adjacent to the proposed overhead line. The nearest structure is Loughill Bridge, Co. Kilkenny which is located c. 425m to the west of the proposed line. It will not be impacted by the proposals.

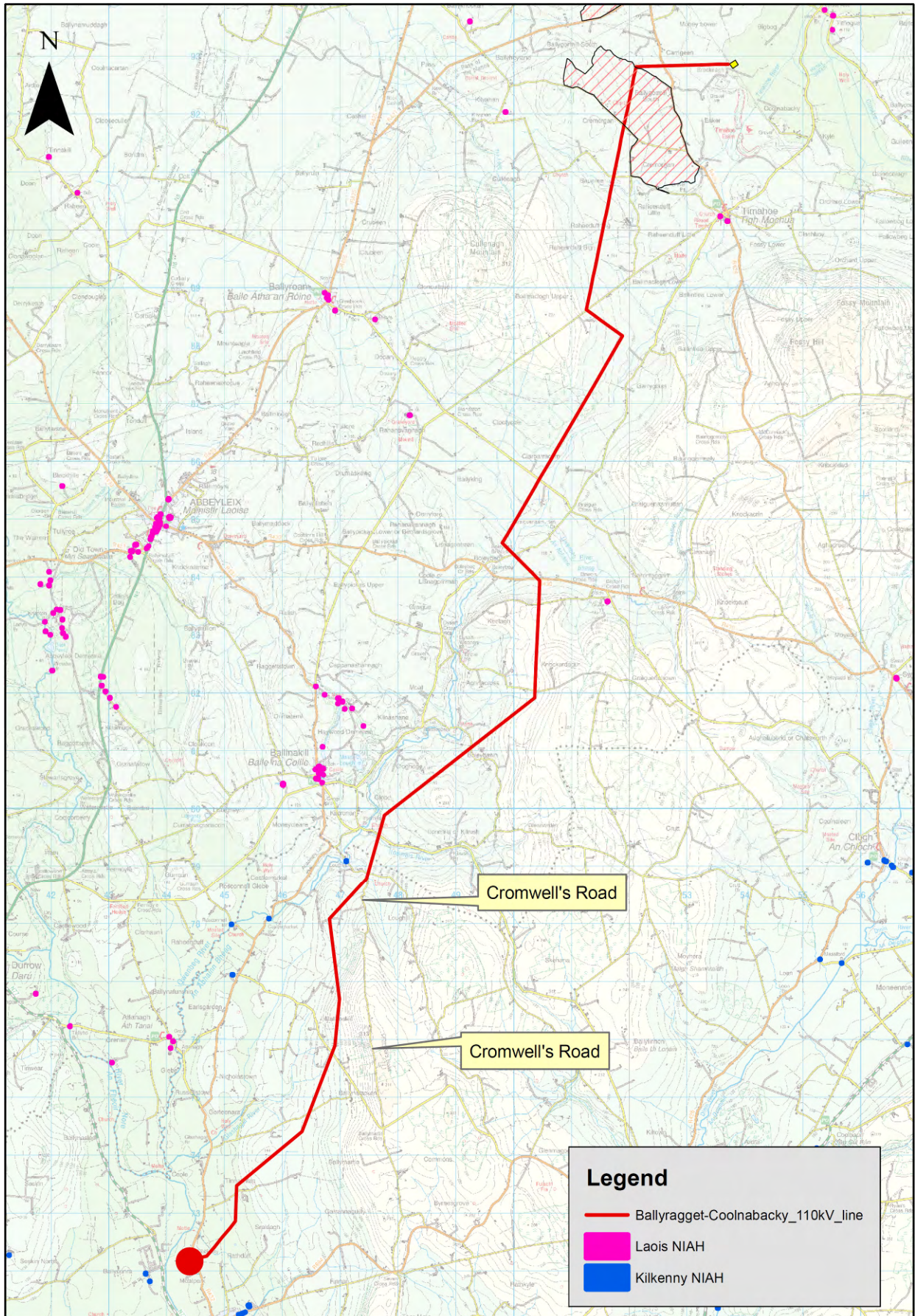


Figure 7.57 NIAH structures located along Unit 5

Garden Surveys

Cremorgan House (LA-55-S-523917) is listed in the Garden Survey in the NIAH although the house itself is no longer extant and it is not a Protected Structure. The garden survey is based on a desktop survey of aerial photographs. The desktop survey concluded that much of the land within the original demesne associated with the house is now largely indistinguishable from surrounding farmland. This was also confirmed by field work associated with the assessment of this project. The southern limits of the demesne are now lined with modern houses and many of the boundaries are gone. A walled garden and Cremorgan Church and Graveyard appear to be the only surviving features within the demesne itself. Field work associated with this survey also noted the presence of a lime kiln located in the south-eastern limits of the demesne (see Section 7.3.2.5.3).

The proposed 110kV line traverses the demesne in an area which is now utilised as agricultural land with multiple land owners. Approximately 1km of the overhead line traverses the demesne to include 6 double polesets. One angle tower (BC 141) will be located just outside the northern limits of the original demesne. The proposed line avoids those features which are of archaeological and cultural heritage value i.e. the church and graveyard, walled garden and lime kiln and as a result no negative impacts are anticipated.

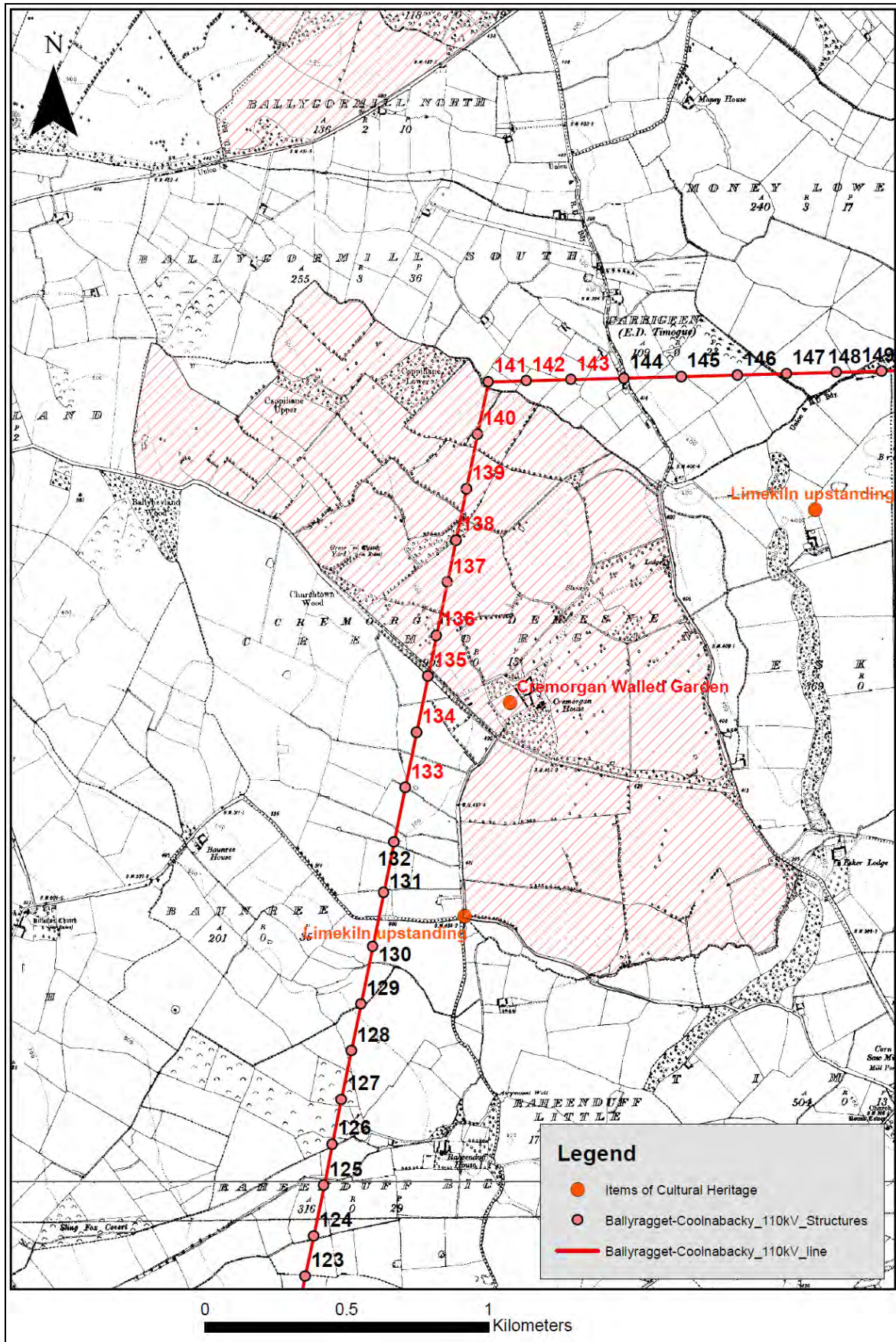


Figure 7.58 Cremorgan demesne highlighted in relation to Unit 5 (taken from its depiction on the 1st ed. map)

7.3.2.5.3 Items of cultural heritage

Six items of cultural heritage note were encountered during field surveys along the proposed overhead line. All items have been avoided by the proposed line and will not be impacted. None of the structures listed in Table 7.14 below are protected structures and all are considered to be of local heritage value and so have been recorded here as part of the assessment process.

All are considered an adequate distance from the proposed overhead line to avoid either direct or indirect impacts.

| Easting | Northing | Item | Townland | Distance to line |
|----------------|-----------------|-------------------------------------|---------------------------------------|--|
| 252032 | 190932 | Lime kiln upstanding | Cremorgan | 292m |
| 252192 | 191687 | Cremorgan Walled Garden | Cremorgan | 240m to line and poleset 135 |
| 250003 | 184388 | Booleybeg Bridge North | Boleybeg | Line traverses bridge. Nearest poleset – 96m |
| | | Cromwell's road Loughill | Loughill, Ballyoskill & Ballynalacken | Northern end of road intersects with AM46. |
| 246658 | 177455 | Stone buildings adjacent to passage | Loughill | 200m |
| 244814 | 172520 | Disused Railway Underpass | Moatpark | 80m |

Table 7.14 Items of cultural heritage note, Unit 5

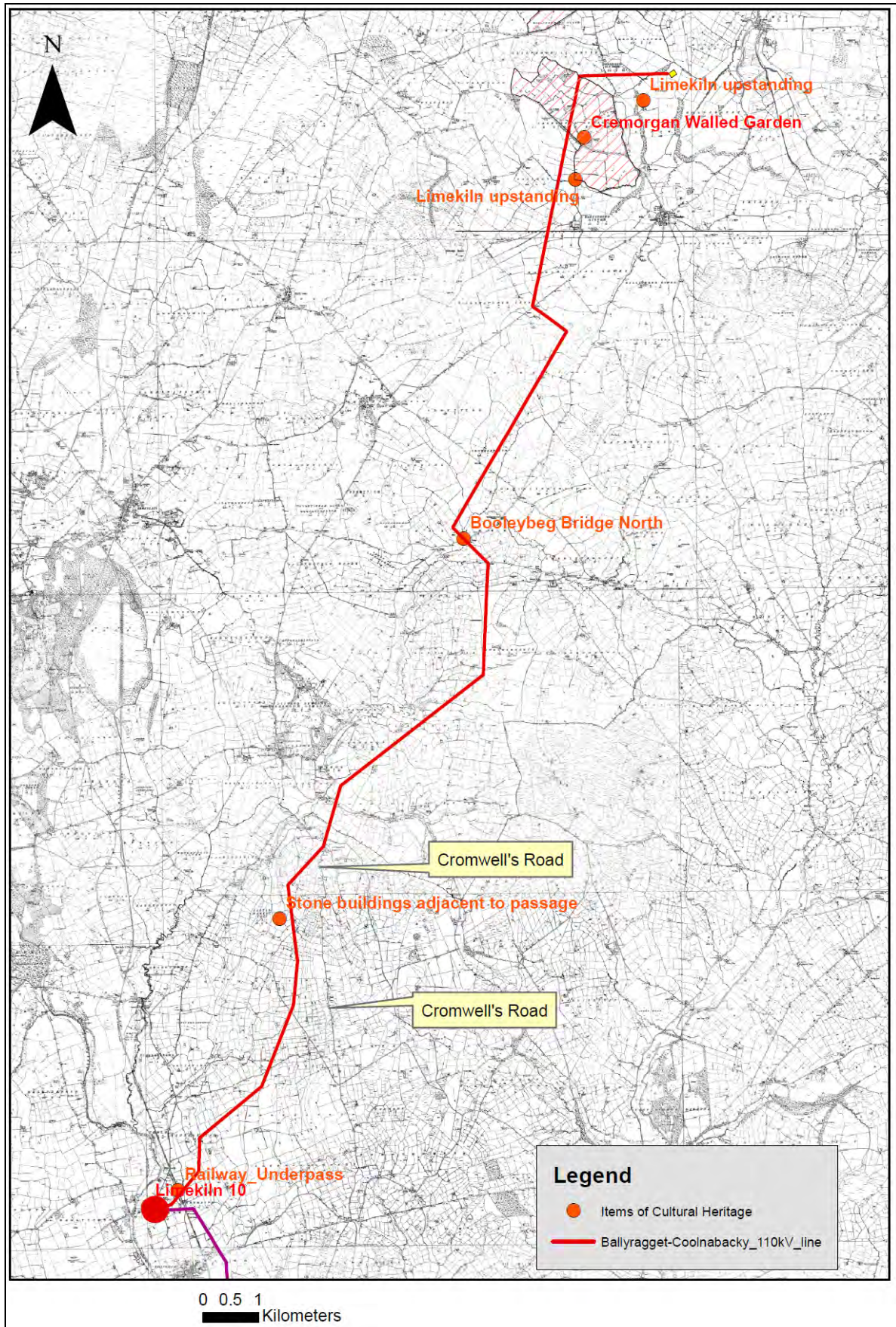


Figure 7.59 Items of Cultural Heritage note, Unit 5

7.3.2.5.4 Construction Access Tracks and Other Working Areas

BC129 and BC130

The construction access tracks associated with Structure BC129 and BC130 traverse close to a limekiln marked on the 1st Edition mapping for the area. Access was not gained into this wayleave however so it is not known if this limekiln still survives. Archaeological monitoring at the construction stage is recommended to negate any potential impacts on the structure if present.

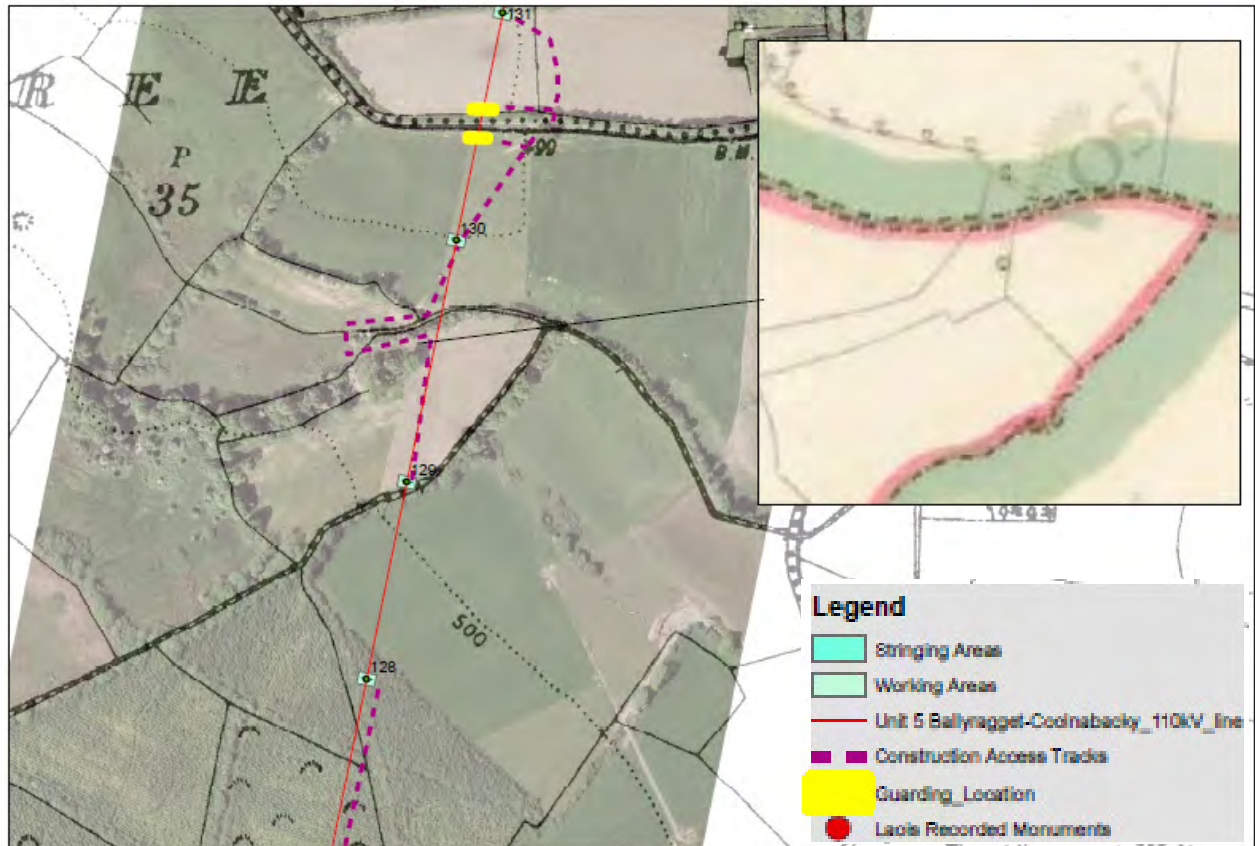


Figure 7.60 Location of limekiln in relation to construction access tracks between BC129 and BC130

BC103 and BC104

Access to BC103 and BC104 traverses a potential limekiln (marked on the 2nd Edition map) although this is now located in dense forestry and access was not gained. The landowner had no knowledge of the limekiln being present. Archaeological monitoring at the construction stage of the development in this area will effectively negate any potential impacts on the monument if present.

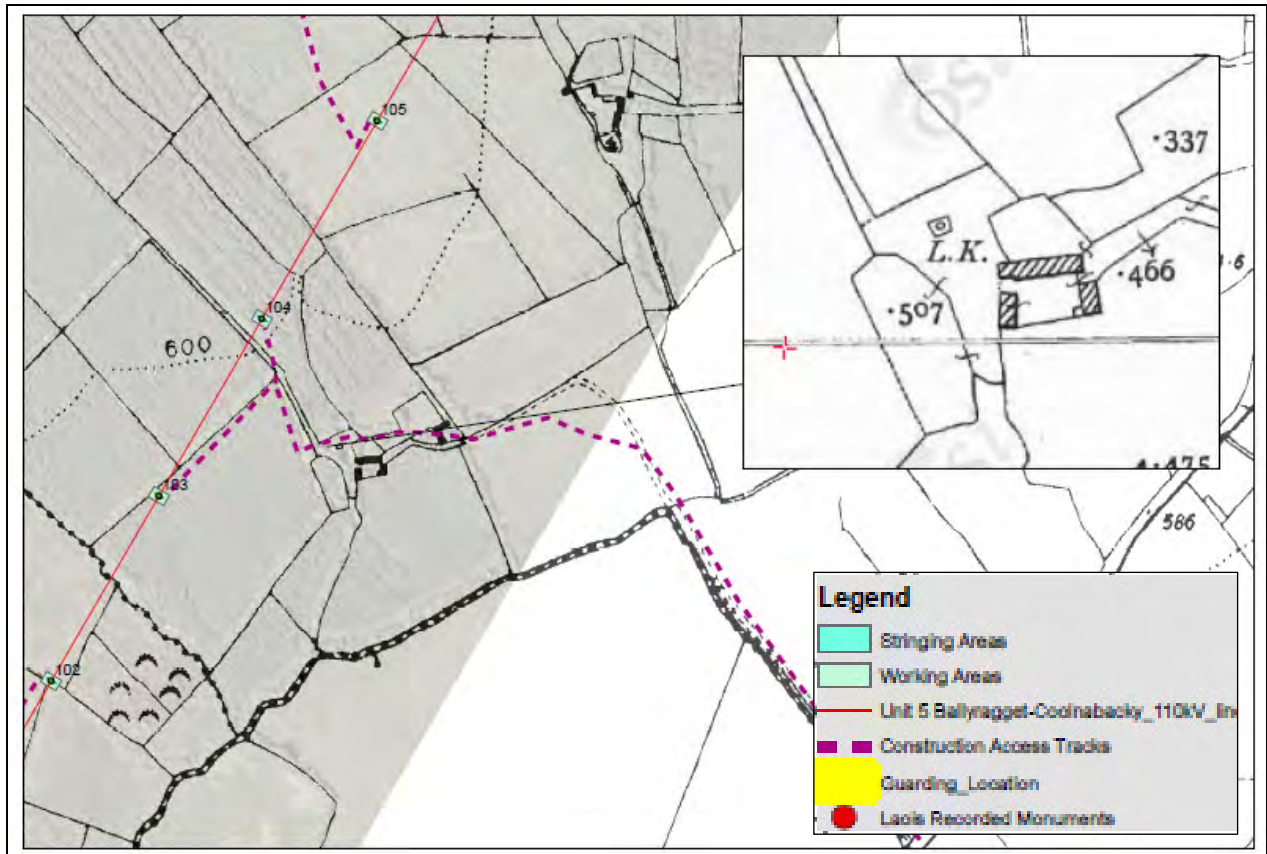


Figure 7.61 Limekiln in forestry adjacent to proposed construction access tracks

BC97

The proposed construction access to BC97 traverses the 'site of' a limekiln marked on the 2nd edition map for the area. On inspection, there is no visible surface trace of this feature and therefore no impacts as a result of utilising the construction access track will occur.

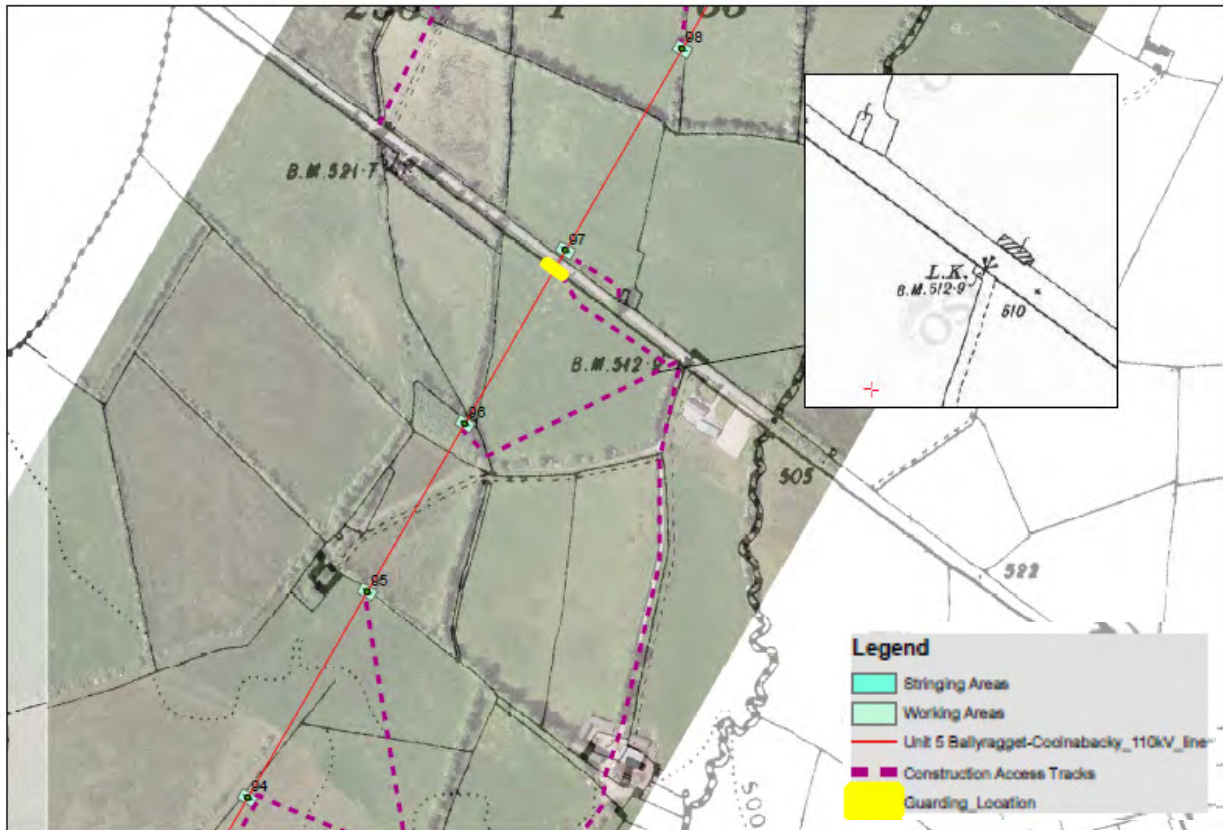


Figure 7.62 'Site of' limekiln in vicinity of proposed construction access to BC97

BC69 – main construction access track

This proposed access track traverses within close proximity to a limekiln which is marked on the 2nd edition map. As access was not permitted to this site, it is not known if the structure is still extant. As the structure is located within a farmyard, no impacts are likely if the kiln is present.

BC33

The proposed access track to BC33 traverses the site of a limekiln marked on the 2nd edition mapping. Access was not permitted to this land on the day of survey therefore no information was gained as to the potential survival or otherwise of the limekiln. Archaeological monitoring at the construction stage of the development is considered to be suitable mitigation in this regard.

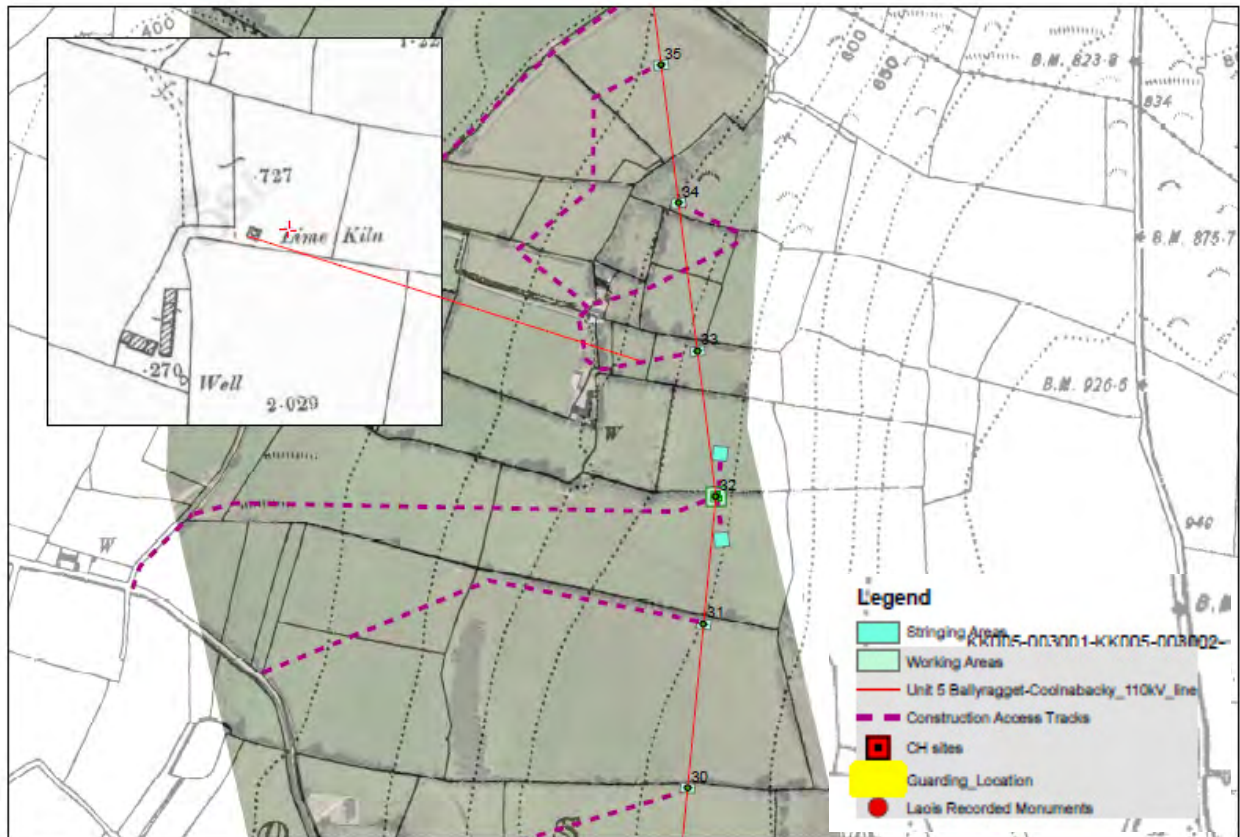


Figure 7.63 Proposed access track to BC32 in relation to site of limekiln

BC5

The proposed construction access track to BC5 traverses within close proximity a feature of cultural heritage/industrial heritage value (Railway underpass associated with the 'Waterford and Maryborough Branch' Railway line). An existing farm passageway is located to the north of this feature and will be utilised as part of the proposed construction access. No impacts on this feature are anticipated therefore and no mitigation is necessary.

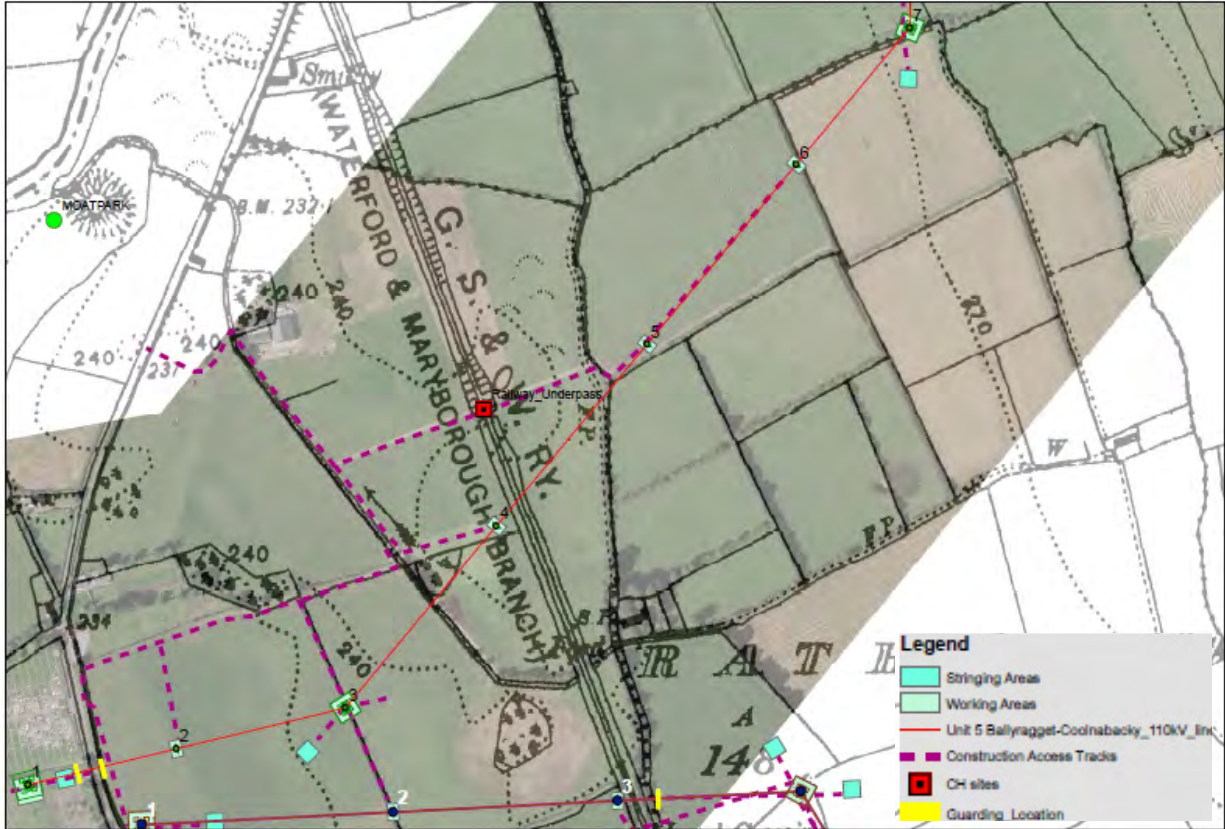


Figure 7.64 BC5 in relation to railway underpass

7.3.2.6 Unit 6 - An Uprate of the Existing Ballyragget-Kilkenny 110kV overhead line

7.3.2.6.1 Protected Structures

No protected structures or their associated curtilages are traversed by the existing line due for replacement. The nearest structures are RPS D36 Dinins Bridge, Eden House C479 and Jenkinstown House and gardens RPS C350/D100 and are outlined in Table 7.15.

| Easting | Northing | Structure | RPS ID | Distance to line |
|---------|----------|-------------------------------|------------|---|
| 245423 | 171394 | Eden House | C479 | 130m |
| 249545 | 164592 | Dinins Bridge | D36 | 142m |
| 248020 | 164498 | Jenkinstown House and gardens | C350/D100 | 881m from house 23m from demesne limits to north |
| 248028 | 164668 | Jenkinstown Mill | D16 / C452 | 720m |

Table 7.15 RPS structures in relation to Unit 6

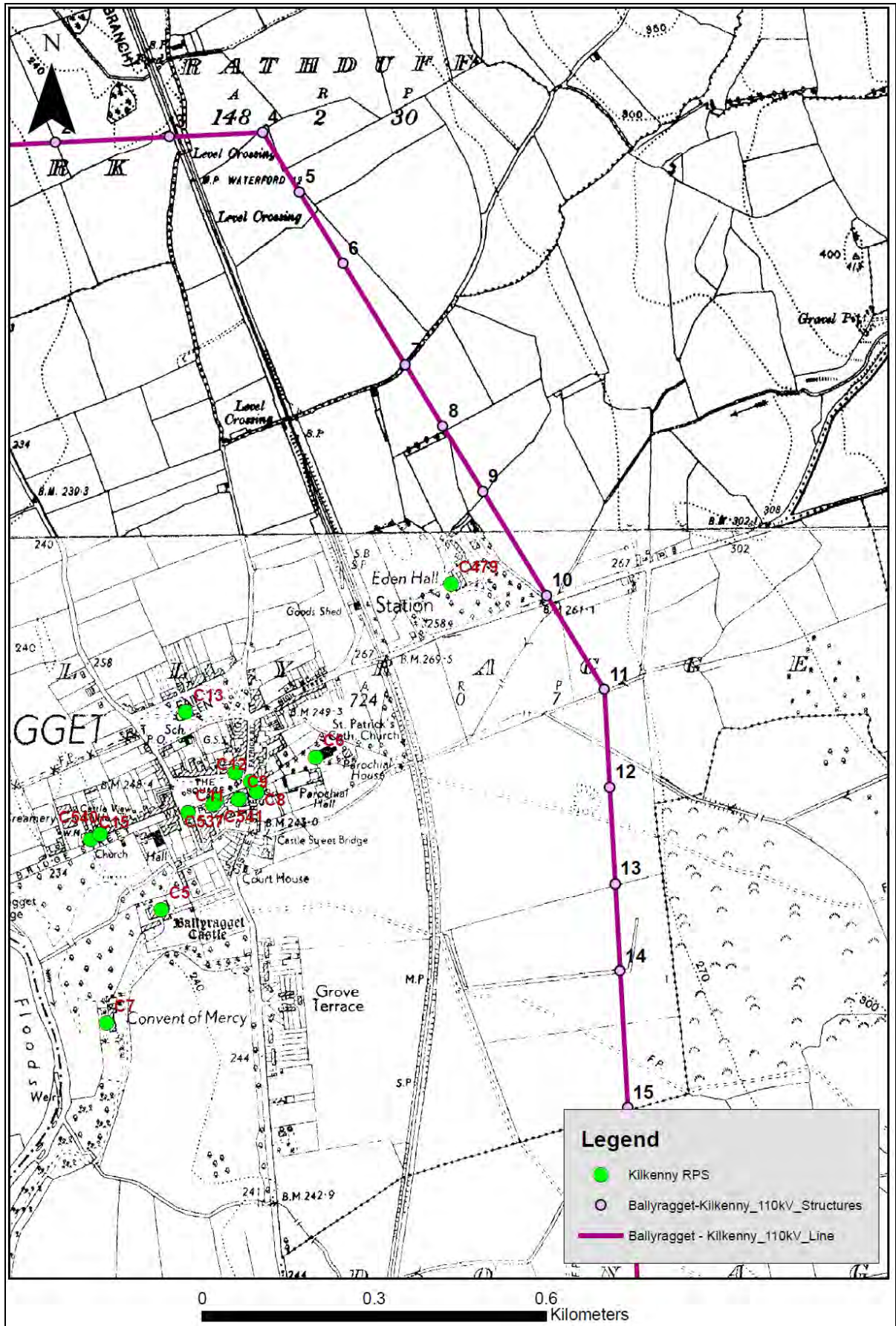


Figure 7.65 Eden House RPS C479 in relation to Unit 6

poles should remain in the ground if possible to avoid unnecessary ground disturbance. Lime kiln 6 is still extant and is divided from poleset BK27 by a farm passage (Plate 7.23). Lime kilns 7 or 8 are no longer visible above ground. Limekiln 9 is still extant and is located in an overgrown area and also fenced off from the surrounding farm land. Lime kiln 3 is still extant but largely overgrown. The re-positioning of the polesets should take into consideration the location of these kilns. Although the kilns are not protected structures and are not recorded monuments, they represent items of local heritage value and should be preserved for future generations. Limekiln 4 should be recorded in full by an archaeologist including measured drawings and photographs prior to the commencement of construction. An archaeologist should also monitor the ground works associated with the replacement of structures BK27 and 30 during the construction phase of the project to ensure that no damage occurs to the limekiln structure. This is considered to be sufficient mitigation in this regard.

The demesne wall at Dunmore park (WL59/58) is well preserved and it was noted during field survey that poleset BK61 is positioned close to the wall. The replacing of the poleset in this location should avoid impacting on the wall. Furthermore if the existing poleset is required to be removed care should also be taken not to physically impact on the demesne feature (Appendix 7.2 Plate 48). The line crosses the dismantled GSWR line in Moatpark townland. In this area the line of the railway is apparent as parallel field boundaries, however further to the north no trace of the line is now visible. The Portlaoise-Waterford section of the GSWR which had a station at Ballyragget was opened in 1865. It is shown on the 2nd edition OS map, as well as later editions. The line was closed in 1963 and subsequently dismantled. The nearest structure (poleset BK3) will be located *c.* 6m west of the field boundary which delimits the western side of the original railway line and will not directly impact on the latter. Figure 7.67 and Figure 7.68 show all new cultural heritage features along Unit 6. The railway line north and east of Ballyragget may also be seen in Figure 7.65.

| Easting | Northing | Structure | Townland | Distance to line |
|----------------|-----------------|------------------|--------------------|--|
| 250175 | 163370 | Lime kiln 1 | Bullockhill | Upstanding but overgrown. 63m to east |
| 249486 | 164359 | Smithy | Ballyrafton/Mohill | 137m to nearest structure to SE |
| 247996 | 165503 | Lime kiln 2 | Gragara | Levelled. 57m to nearest structure to NW |
| 247083 | 167002 | Lime kiln 3 | Foulksrath | 50m to nearest structure to SE |
| 246860 | 167552 | Lime kiln 4 | Connahy | 2m to nearest poleset 30 to south |
| 246760 | 167714 | Lime kiln 5 | Connahy | 76m to nearest poleset to north 29 |
| 246596 | 168087 | Lime kiln 6 | Connahy | 6m to poleset 27 to north |
| 246596 | 168120 | Lime kiln 7 | Connahy | 26m to nearest poleset 27 |
| 245930 | 169378 | Lime kiln 8 | Donaghmore | 40m to nearest poleset 21 to NE |
| 245865 | 169878 | Lime kiln 9 | Donaghmore | 115m to poleset 18 to NW |
| WL58 | WL59 | Demesne Wall | Dunmore Park | BK61 abuts demesne wall |
| WL20 | WL20 | Dismantled GSWR | Moatpark | 6m to poleset 3 |

Table 7.16 New items of cultural heritage located along Unit 6

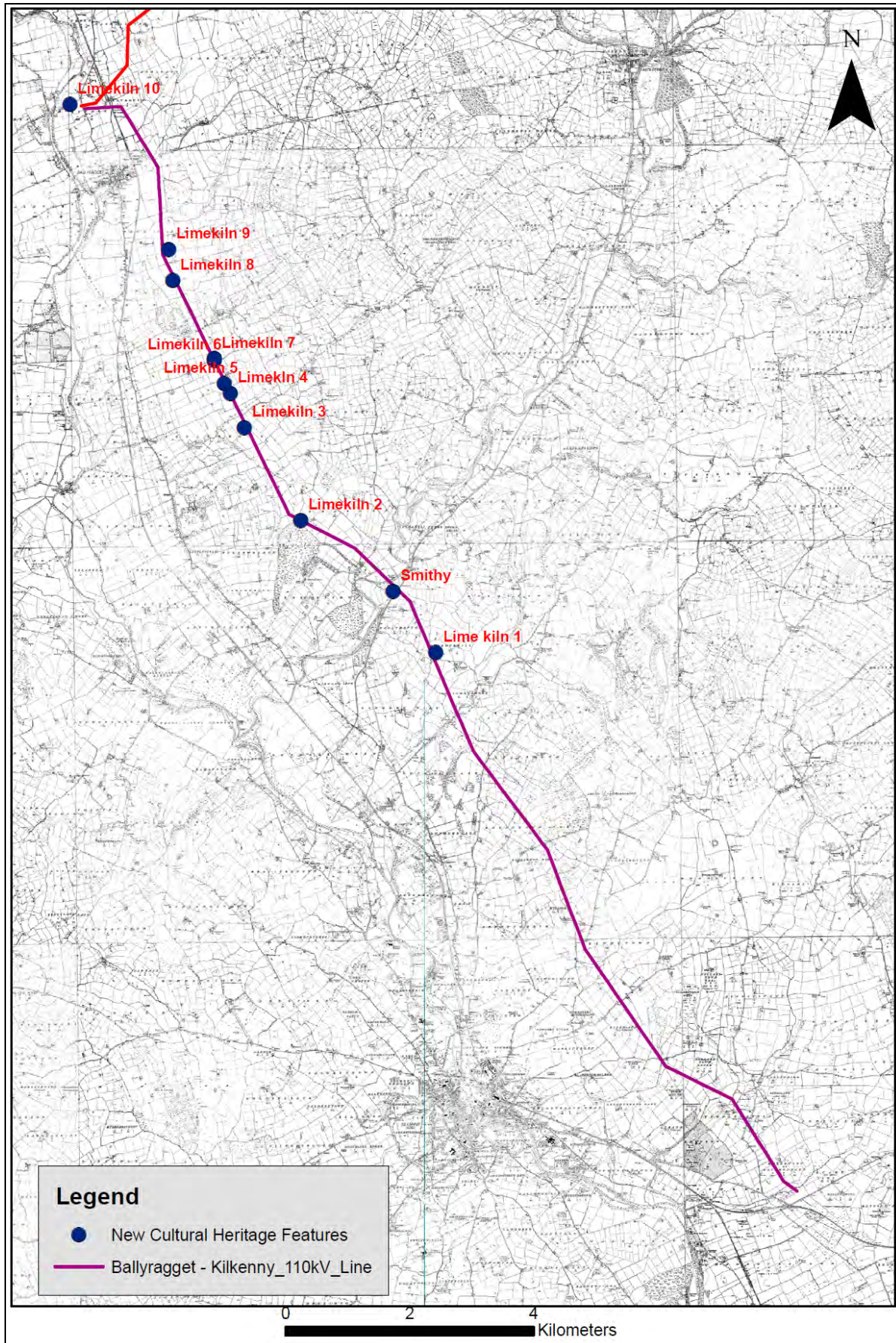


Figure 7.67 New cultural heritage features, Unit 6

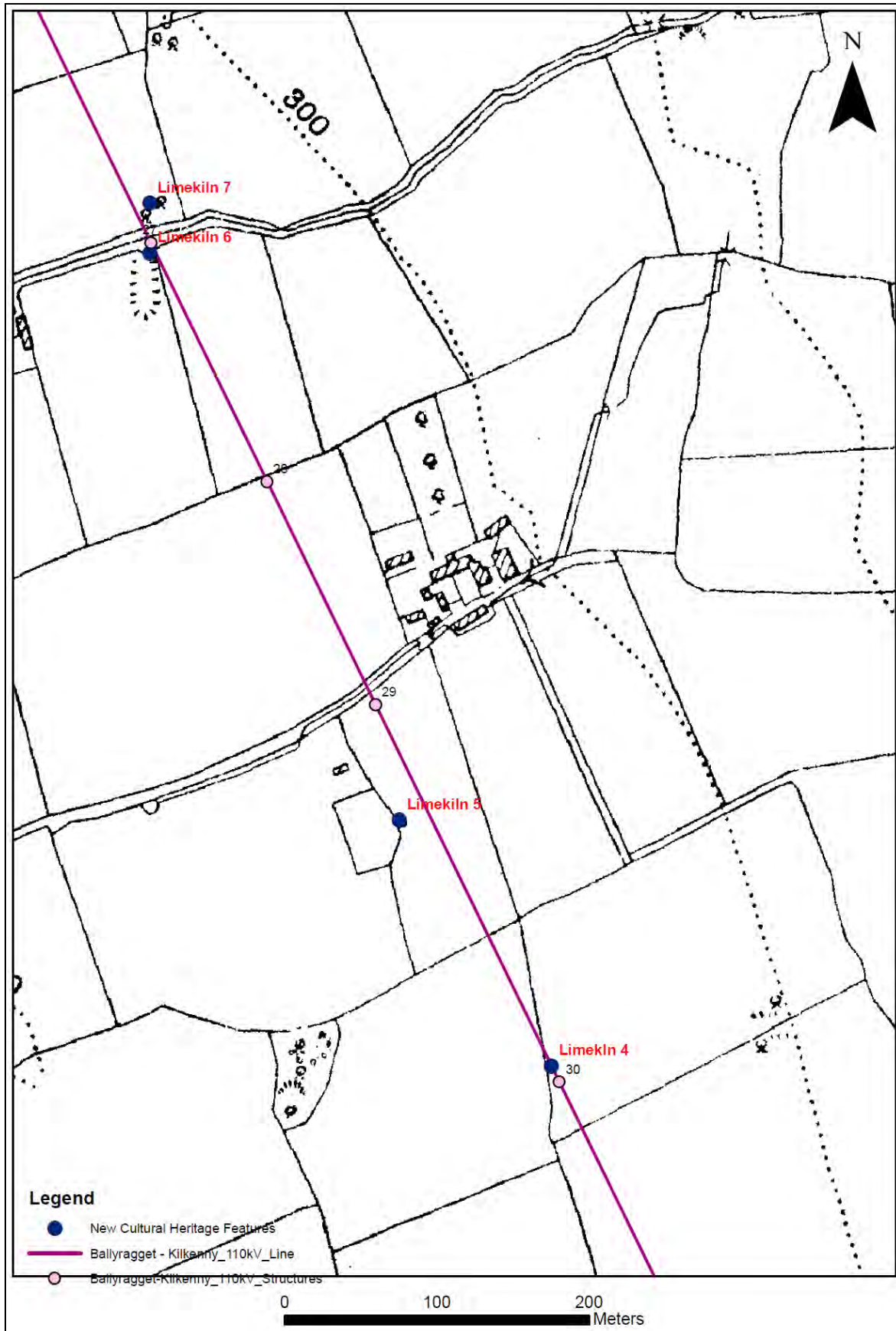


Figure 7.68 Limekilns 4, 6 and 7 in relation to structures due to be replaced, Unit 6



Plate 7.22 Lime kiln 4 adjacent to poleset BK30, c. 2m from structure



Plate 7.23 Lime kiln 6 looking ENE

7.3.2.6.4 Proposed Construction Access Tracks and other working areas

BK18 and BK21

The proposed construction access tracks to these structures are located within the general vicinity of two new cultural heritage sites (Limekilns 8 and 9). Limekiln 9 is upstanding, adequately fenced off and situated within dense overgrowth. Limekiln 8 is levelled and therefore no impacts are anticipated.

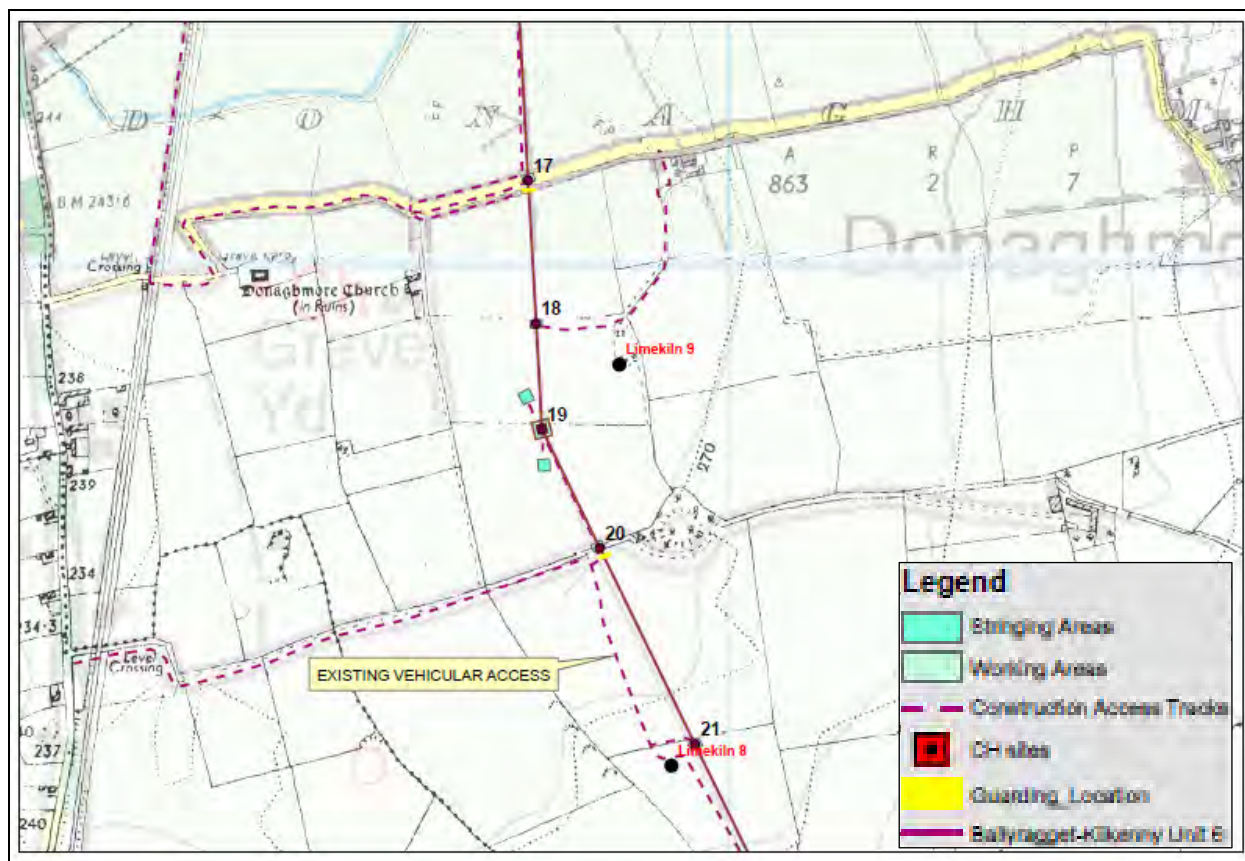


Figure 7.69 Limekilns 8 and 9 and proposed construction access tracks to BK18 and BK21

7.3.2.7 Unit 7 - A new 110kV bay in the existing Kilkenny 110kV station

The addition of a new bay at the Kilkenny substation has no implications either direct or indirect (visual) for either architectural heritage or cultural heritage. The substation is existing and the addition of an additional bay is not likely to detract from the surrounding built heritage. Furthermore the substation is located adjacent to a newly constructed road and the context of this landscape has changed significantly.

7.3.2.8 Unit 8 - Modifications to existing Athy-Portlaoise 110kV line

7.3.2.8.1 Protected Structures

The existing Athy-Portlaoise 110kV line does not traverse any curtilage associated with any protected structures ("curtilage" is generally taken to mean the area of land around and directly related to the building).

A gate lodge (RPS617) which is part of Lamberton Demesne is located to the north-west of the section of the existing Athy-Portlaoise line to be retrofitted with earthwire. Structure AP105 which is an existing poleset will be replaced by an angle mast. The latter is located just under 2km from the gate lodge. The gate lodge is set back from the road and now appears to be surrounded by modern farm buildings. The wall surrounding the demesne is still present although has been breached in a number of places and modern repair works (concrete) are apparent in a number of locations.

The modifications to the existing section of the overhead line in this area will not impact on the nearby protected structure, its curtilage or defining boundary. No other protected structures are located within close proximity.

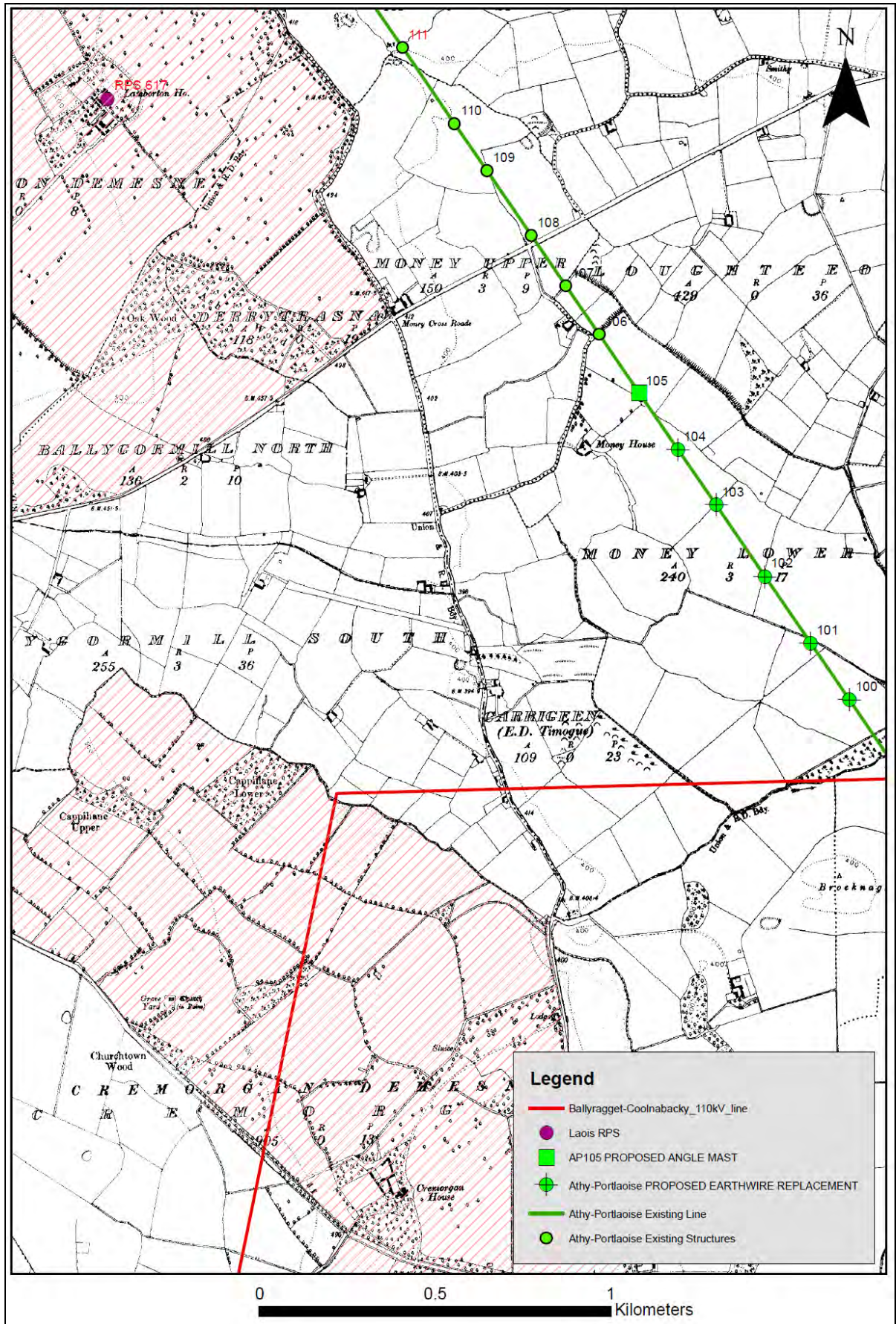


Figure 7.70 Unit 8 protected structures

7.3.2.8.2 Structures listed in the NIAH and Garden Surveys

No structures listed in the NIAH record which are not Protected Structures are located within close proximity to the existing line due for modification. The only structure is that of the gate lodge in Lamberton (NIAH Reg. 12801803) which is also a protected structure.

7.3.2.8.3 Items of cultural heritage note

No new items of cultural heritage note were encountered in the field surveys undertaken as part of the assessment process.

7.3.2.8.4 Construction Access Tracks and other working areas

No protected structures or items of cultural heritage are located on or within the immediate vicinity of the proposed construction access tracks associated with Unit 8.

7.3.3 PLACENAME EVIDENCE

The townland is the smallest geographical unit in Ireland with over 60,000 townland names recorded. The townland system has its origins in the medieval period with the majority of townland names pre-dating the Norman invasion of 1169. The townland names we are familiar with today are mainly anglicised versions of earlier Irish names, although some place names appear to derive from Hiberno-Norman manors, Plantation divisions or later creations of the Ordnance Survey. Townland names and boundaries were recorded for the first edition Ordnance Survey mapping of the nineteenth century. The townlands were then utilised as formal administrative units for the census and as the basic framework for Griffith's Valuation.

Place names may be derived from geological, archaeological or topographical features within the landscape or may also have taken the name of an important or famous person who once lived in the area. Place name evidence can refer to archaeological monuments within the vicinity which may no longer be visible in the landscape or which are now only documented through local history or tradition. The meaning for each townland through which the proposed line passes has been compiled for this EIS (Appendix 7.4) using a number of sources including the Placenames Database of Ireland www.logainm.ie, The Anglicized words of Irish Placenames (Burnell 2006) and Irish Place Names (Joyce 1870).

7.4 POTENTIAL IMPACT

7.4.1 DO NOTHING IMPACT

All recorded monuments, national monuments and newly recorded sites of cultural heritage have been 'designed out' of the proposed development in its current layout. No impacts on the latter features will take place should the proposed development either proceed or not proceed. In the event of the proposed development not proceeding, no potential sub surface features within the footprint of either the substation site, proposed poleset locations, angle mast locations or proposed 400kV structures will be uncovered or disturbed.

7.4.2 POTENTIAL IMPACT FROM PROJECT

Archaeological heritage is a non-renewable resource. The overall objective of this appraisal of impacts of the proposed development is to ensure that where a potential impact has been identified, that it can be effectively mitigated against to ensure that the archaeological heritage will be available for future generations. The potential impacts on the archaeological heritage along the proposed line route, substations and proposed modification and up-rating (Units 1-8) are assessed here and are outlined according to those which may occur during and after the project has been completed. The significance of impacts can vary from profound, where a monument, is defaced/destroyed by a proposed development to slight impact where the character and environment of a monument has been slightly altered by a proposed development.

Architectural and Cultural Heritage as with archaeological heritage is a non-renewal resource and this assessment identifies structures, both those which have statutory protection (protected structures) and

those which do not have statutory protection (NIAH buildings and newly recorded items of cultural heritage note), which may be impacted by the proposed development.

Potential impacts on archaeological, architectural and cultural heritage are discussed under each Unit below. Significance of impact is described as follows:

Significance of Impacts

Profound: Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise where an archaeological site/architectural heritage building is completely and irreversibly destroyed by a proposed development.

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

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

Slight: An impact which causes changes in the character of the environment which are not significant or profound and do not directly impact or affect an archaeological feature/ monument or heritage building.

Imperceptible: An impact capable of measurement but without noticeable consequences.

7.4.3 UNIT 1 - NEW 400/110kV GIS SUBSTATION AT COOLNABACKY TOWNLAND, Co. LAOIS

7.4.3.1 Archaeological Heritage

Five National Monuments are located within 3km of the proposed substation, the nearest structure being at a distance of 2.2km. No recorded monuments are located within 1km of the proposed substation and no new sites of archaeological potential were encountered on the substation site during field work or consultation of aerial photography. Table 7.17 summarises the archaeological impacts relating to Unit 1.

Cropmark landscapes in the form of both recorded monuments and newly detected sites are located in the general vicinity of the proposed substation however. In this regard a potential impact on similar sites or sub-surface features associated with such landscapes that may occur within the proposed substation site has been identified.

| RMP/Nat Mon | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM SUBSTATION | SIGNIFICANCE OF POTENTIAL IMPACTS* |
|---------------------------------------|----------------|-------------|---------------|--------------------------|------------------------------------|
| LA019-016001 / 114 | 254453, 189898 | FOSSY LOWER | GRAVEYARD | 3km | Imperceptible |
| LA018-031002 / 114 | 253570, 190230 | TIMAHOE | CHURCH | 2.7km | Imperceptible |
| LA018-031005 / 114 | 253564, 190219 | TIMAHOE | ROUND TOWER | 2.7km | Imperceptible |
| LA018-021001 / Local Authority | 251650, 192230 | CREMORGAN | CHURCH | 2.2km | Imperceptible |
| LA018-021002 / Local Authority | 251640, 192220 | CREMORGAN | GRAVEYARD | 2.2km | Imperceptible |

Table 7.17 Summary of potential impacts on archaeological heritage Unit 1

7.4.3.2 Architectural and Cultural Heritage

No protected structures (or associated curtilages) or buildings listed in the NIAH are located within close proximity to the proposed substation. No potential impacts have therefore been identified in this regard. One new item of local cultural heritage significance (lime kiln), encountered during field inspection, is located within 700m of the proposed substation site. Given the well preserved nature of this structure, its location within a fenced off field adjacent to a passageway and its distance from the proposed substation, no potential impacts have been identified.

| RPS/NIAH | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM LINE/NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS |
|----------|----------------|----------|---------------|--------------------------------------|-----------------------------------|
| N/A | 253268, 192370 | ESKER | LIME KILN | 700M | Imperceptible |

Table 7.18 Summary of potential impacts on architectural heritage Unit 1

7.4.4 UNIT 2 - NEW CONNECTION TO COOLNABACKY FROM THE EXISTING MONEYPPOINT-DUNSTOWN 400KV LINE

7.4.4.1 Archaeological Heritage

Two National Monuments are located within 3km of Unit 2, the nearest structure being at a distance of 2.2km. Eight levelled recorded monuments are located within 1km of the unit. One new levelled site of archaeological potential was detected from aerial photography. Table 7.19 summarises all archaeological impacts relating to Unit 2.

| RMP/Nat Mon | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM LINE/NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS* |
|--------------------------------|----------------|---------------------------------|--------------------|--------------------------------------|------------------------------------|
| LA018-031002 / 114 | 253570, 190230 | TIMAHOE | CHURCH | 2.7km | Imperceptible |
| LA018-031005 / 114 | 253564, 190219 | ROUND TOWER | TIMAHOE | 2.7km | Imperceptible |
| LA018-021001 / Local Authority | 251650, 192230 | Church | CREMORGAN | 2.2km | Imperceptible |
| LA018-021002 / Local Authority | 251640, 192220 | Graveyard | CREMORGAN | 2.2km | Imperceptible |
| LA018-005 | 252690, 194720 | Enclosure | POWELSTOWN | 615m | Imperceptible |
| LA018-006 | 252690, 194970 | Enclosure | POWELSTOWN | 812m | Imperceptible |
| LA018-013 | 253469, 194505 | Enclosure | LOUGHTEEOG | 338m | Imperceptible |
| LA018-014 | 252350, 193320 | Water mill - horizontal-wheeled | BALLYGORMILL SOUTH | 981m | Imperceptible |
| LA018-049001 | 253890, 194620 | Castle - unclassified | LOUGHTEEOG | 739m | Imperceptible |
| LA018-066 | 252902, 194284 | Moated site | LOUGHTEEOG | 167m | Imperceptible |
| LA018-067 | 253039, 194360 | Field system | LOUGHTEEOG | 20-25m | Slight |
| LA018-068 | 252777, 194376 | Field system | MONEY UPPER | 290m | Imperceptible |
| New site | 253113, 193022 | Possible Field System | Money Lower | 134m | Imperceptible |

Table 7.19 Summary of potential impacts on archaeological heritage Unit 2

The National Monuments within 3km of Unit 2 are located an adequate distance from the line in order to avoid any potential impacts. The recorded monuments located within 1km of this unit are levelled and in this regard will not be impacted visually. The field in which a crop marked field system was identified at Loughteeog LA018-067 is located 20-25m from the proposed line. A potential for uncovering sub-surface archaeological remains relating to or similar to this monument during construction works has been identified therefore. The significance of impacts is slight and can effectively be mitigated against by archaeological testing of Unit 2. Furthermore, although no significant impacts will occur regarding national or recorded monuments, the presence of extensive crop marked field systems in this area (both recorded and newly discovered) demonstrates the potential for uncovering similar sites along the 400kV line. The damage to any potential sub-surface deposits associated with such sites can be mitigated against by undertaking pre-construction archaeological testing.

7.4.4.2 Architectural and Cultural Heritage

The proposed 400kV line will not traverse any curtilages associated with protected structures, structures listed in the NIAH or newly recorded items. The nearest protected structure is located 1.6km to the north-west in Lambertton Demesne. According to the description in the RPS and NIAH, the estate has been cleared and the main house demolished. The protected structure refers to a Gate Lodge (RPS 617) which dates to 1880. While a change to the environment may take place at a distance from the protected structure no profound or significant impacts will occur.

No potential significant impacts have been identified and no mitigation is required.

7.4.5 UNIT 3 NEW CONNECTION TO COOLNABACKY FROM THE EXISTING ATHY-PORTLAOISE 110kV LINE

This connection will be made by very short lengths (100-200m) of underground cable adjacent to the substation. Two new line cable interface masts will be required to facilitate this connection. No National Monuments or recorded monuments are located within the immediate vicinity of this short section of line. No architectural heritage features or any new features are located within close proximity to this element of the project. Archaeological mitigation for this section of the line will be covered under the mitigation for the proposed substation site (Unit 1) (i.e. geophysical survey, testing, monitoring etc).

7.4.6 UNIT 4 - A NEW 110kV / 38kV / MV SUBSTATION IN BALLYRAGGET, CO. KILKENNY

7.4.6.1 Archaeological Heritage

Two National Monuments are located within 3km of the proposed substation site at Ballyragget the nearest being the motte at Moatpark, 488m from the site. The environment around the motte has changed significantly in recent decades with the construction of a factory to the west of the substation site. Currently, the existing substation is not visible from the public road adjacent to the motte. The existing substation at Ballyragget will be de-commissioned and be replaced by a new GIS substation and in this regard no significant impacts are anticipated. All of the recorded monuments are located an adequate distance from the line. No potential impacts on the recorded monuments have been identified therefore.

Sub-surface archaeological remains may exist within the proposed site which could (if present) be directly impacted by ground works associated with the construction of the substation. Archaeological testing of the site, to confirm whether such remains exist, is therefore recommended prior to commencement of development in this location.

| RMP/Nat Mon | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM LINE/ NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS* |
|---|----------------|-----------------------------|-------------------------|---------------------------------------|------------------------------------|
| KK005-023003 Preservation Order | 244434, 172687 | MOATPARK | Motte | 488m | Imperceptible |
| RMP KK010-005 Local Authority | 245413, 169973 | DONAGHMORE (Fassadinin By.) | Church | 2.3KM | Imperceptible |
| RMP KK004-014 | 244201, 172916 | BALLYCONRA | Enclosure | 747m | Imperceptible |
| RMP KK004-021 | 244010, 172370 | BALLYCONRA | Inscribed stone | 350m | Imperceptible |
| RMP KK004-024 | 243680, 171910 | BALLYCONRA | Inscribed stone | 668m | Imperceptible |
| RMP KK009-014 | 244081, 171240 | PARKSGROVE | Ringfort - unclassified | 881m | Imperceptible |
| RMP KK005-023003- | 244434, 172687 | MOATPARK | Chapel | 488m | Imperceptible |
| RMP KK005-024 | 245190, 172200 | RATHDUFF | Mound | 767m | Imperceptible |
| RMP KK005-094 | 244924, 172580 | RATHDUFF | Enclosure | 644m | Imperceptible |
| RMP KK005-095 | 244994, 172669 | RATHDUFF | Field system | 756m | Imperceptible |
| RMP KK005-096 | 245011, 172202 | RATHDUFF | Enclosure | 592m | Imperceptible |

Table 7.20 Summary of potential archaeological impacts along Unit 4

7.4.6.2 Architectural and Cultural Heritage

No protected structures will be impacted by the proposed substation at Ballyragget as none are located within the immediate vicinity of the site. The nearest structure is Ballyconra House RPS C312 which is located approximately 800m to the west of the proposed substation site. The house has now been largely obscured by a nearby factory.

A new item of local cultural heritage significance (not a protected structure) (*Lime kiln 10*) is located at Moatpark (E244270, N172222). The lime kiln is marked on the 1st and 2nd edition OS map in the adjacent field to the north-west of the proposed substation site (Figure 7.54 and Figure 7.55). The kiln or site of the kiln will not be impacted by the proposed development. A large field boundary separates the site of this structure from the substation site and it is not visible from the latter.

No potential impacts on the architectural or cultural heritage landscape have been identified.

7.4.7 UNIT 5 - A NEW 110KV OVERHEAD LINE BETWEEN BALLYRAGGET AND COOLNABACKY

7.4.7.1 Archaeological Heritage

Six National Monuments (State Care or Local Authority Ownership) are located within 3km of the proposed overhead line. Seven (7) recorded monuments, one of which is a multiple site of 9 monuments (Loughill Ecclesiastical Complex), are located within 1km of the proposed overhead line. Five new sites of potential archaeological value were encountered during field work carried out along the proposed line.

| RMP/Nat Mon | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM LINE/ NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS* |
|--------------------------------------|-------------------|---------------|--------------------------------|--|------------------------------------|
| LA018-02 – Local Authority | 251650 192230 | CREMORGAN | Church and Graveyard | 330m | Slight (visual) |
| LA019-016001 / 114 | 254453 189898 | FOSSY LOWER | Graveyard | 2.9km | Imperceptible |
| LA018-031002 /114 | 253570 190230 | TIMAHOE | Round Tower | 1.9km | Imperceptible |
| KK010-005001/ Local Authority | 245413 169973 | DONAGHMOR E | Church and Graveyard | 2.4km | Imperceptible |
| LA030-026 / possible Local Authority | 247329 179715 | KILCRONAN | Church and Graveyard | 350m | Slight (visual) |
| KK005-023001 Nat Mon – | 244465 172696 | MOATPARK | Castle - motte | 470m | Imperceptible |
| LA024-025 | 251680 187550 | GARRYGLASS | Enclosure | 135m to BC109 from centre (no surface trace). Construction access track 49m to centre of enclosure. | Imperceptible Slight |
| LA030-016 | 250550 182540 | KNOCKARDAG UR | Enclosure | 143m to BC75 (no visible surface trace) Construction access track 50m to centre of enclosure | Imperceptible Slight |
| KK030-022 | 248069 180423 | CLOGHOGE | Ringfort | Construction access track to BC56 adjacent (6m) from ringfort | Slight-Moderate |
| KK001-004001 | 247607 178746 | LOUGHILL | Church | 152m to BC46 angle mast | Slight (visual) |
| KK001-004002 | 247611 178740 | LOUGHILL | Graveyard | 157m to BC46 angle mast | Slight (visual) |
| KK001-004003 | 247514 178734 | LOUGHILL | Religious house - unclassified | 75m to BC46 angle mast | Slight (visual) |
| KK001-004004 | 247732, 178536 | LOUGHILL | Religious house - unclassified | 369m to BC46 angle mast | Slight (visual) |
| KK001-004005 | 247590 178670 | LOUGHILL | Mill - unclassified | 174m to BC46 angle mast | Slight (visual) |
| KK001-004006 | 247603, 178635 | LOUGHILL | Enclosure | 207m to BC46 angle mast | Slight (visual) |
| KK001-004007 | 247590 178660 | LOUGHILL | Clochan | 181m to BC46 angle mast | Slight (visual) |
| KK001-004008 | 247580 178670 | LOUGHILL | Road - road/trackway | 168m to BC46 angle mast | Slight (visual) |
| KK001-004009 | 247601 178662 | LOUGHILL | Earthwork | 189m to BC46 angle mast | Slight (visual) |

| | | | | | |
|-------------------|-------------------|-------------|--|---|--|
| KK001-004-001-009 | See above | LOUGHILL | Ecclesiastical Complex | Guard Point between BC46 and BC47 and associated access tracks to be monitored | Slight |
| KK005-016 | 246430 174190 | BALLYMARTIN | Field System | 22m to BC18 angle mast | Slight |
| KK005-014 | 245505 173504 | TINNALINTAN | Ringfort - Rath | 129m to line. 153m to poleset BC11. | Imperceptible |
| KK005-094 | 244924 172580 | RATHDUFF | Enclosure | BC5 poleset- 39m to centre of enclosure. Extent of monument not known. Access and storage areas may impact on enclosure. Construction access track between BC5 and BC6 traverses levelled field system KK005-095 at Rathduff. In wet conditions may impact on site. | Slight-Moderate Slight-moderate |
| KK005-095 | 244994 172669 | RATHDUFF | Field System | Extent of field system not known. Line traverses field. Access and storage areas may impact on field system. | Slight-Moderate |
| New site | 251739 190987 | Cremorgan | Possible Fulacht Fiadh Aerial Photo | 26m to BC131 45m to Guard Point | Slight |
| New site | 245509 173674 | Ballymartin | Possible Ringfort – curving bank | 19m to BC12 Construction Access track 20m to feature | Slight-Moderate |
| New site | 246720, 177324 | Loughill | Rath – local information – Identified as Lime kiln | 154m to BC36 | Imperceptible |
| New site | 253113 193022 | Money Lower | Possible Field System | 73m to BC147 | Slight |
| New site | 251881 187788 | Garryglass | Possible leveled ringfort– 6 inch mapping | 205m to BC110 | Imperceptible |

Table 7.21 Summary of potential archaeological impacts, Unit 5

Cremorgan Church and Graveyard is surrounded by private land and not accessible to the public. A portion of the proposed overhead line (poleset) will be visible from the eastern extent of the graveyard boundary but at a distance of 330m. This is considered to be a slight impact given the 'slight' change to the environment of the area. No profound or significant impacts have been identified. **Kilcronan Church and Graveyard**, a possible National Monument is similar to Cremorgan in that the line will be visible from the monuments at a distance of 350m. Similarly this is considered to be a slight impact. No mitigation is necessary.

All other National Monuments listed above are located in excess of 1.9km from the proposed line and therefore potential impacts are considered to be imperceptible.

Recorded monument Loughill Ecclesiastical Complex LA001-004 (1-9) is located in private land and is densely overgrown and not accessible to the public or visible from the public road. Many of the monuments within the complex have little or no surface trace. No profound or significant impacts will occur in this regard. The nearest angle mast may be visible from the site and in this regard due to the slight change in the environment the impact has been identified as slight. No mitigation is necessary.

The field system **KK005-016** at Ballymartin is located 22m from the proposed angle mast BC18. The significance of potential impact is slight in that sub-surface remains/deposits relating to the field system may extend outside the modern 19th / 20th century field boundary. Archaeological monitoring of this poleset is therefore recommended.

The field system and enclosure **KK005-094 and KK005-095** are located within relatively close proximity to the proposed line. Their full extents on the ground are not known, however, due to their levelled nature. No visual impacts on the monuments will take place therefore. A potential for uncovering sub-surface archaeological remains relating to or similar to these monuments during construction works has been identified. The significance of impacts is slight to moderate and can effectively be mitigated against by pre-construction archaeological testing and monitoring during construction works. Geophysical Survey should be undertaken prior to construction taking place to identify the full extent of the field system. This may be followed by archaeological testing depending on the results of the geophysics.

The construction access track to BC56 traverses close to the upstanding ringfort LA030-022 and therefore the movement of machinery should be monitored by an archaeologist during construction.

Whilst the proposed structure BC75 is an adequate distance from the levelled enclosure at Knockardagur LA030-016, the proposed construction access track is located 50m from the centre point of the monument. In this regard an archaeologist should monitor the movement of machinery in this location.

The newly identified **fulacht fiadh** in Cremorgan is located 26m from the nearest poleset and therefore the significance of potential impacts is slight but again can effectively be mitigated against by archaeological monitoring at the construction stage.

The newly identified levelled **field system** at Money Lower demonstrates the presence of an extensive crop mark landscape in the area. A number of similar recorded monuments are also located further to the north of this site. Visual impacts will not occur however given the leveled nature of the monuments. The significance of impacts has been identified as slight due to the potential for uncovering similar sites along this part of the line route. Archaeological monitoring at construction, however, is regarded as suitable mitigation in this regard.

7.4.7.2 Architectural Heritage

No protected structures or their curtilages have been traversed by the proposed overhead line or are located within close proximity to polesets or angle masts. A number of newly recorded sites of local heritage merit were noted on the 1st Edition/2nd Edition OS maps and were assessed in the field. The following table shows a list of these sites:

| RPS/CH ref. | ING | TOWNLAND | STRUCTURE | DISTANCE FROM LINE/NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS |
|--------------------|----------------|-----------------|------------------|--|--|
| New Site | 253268, 192368 | Esker | Limekiln | 15m from proposed construction access track (existing) | Negligible |
| New Site | 252192, 191687 | Cremorgan | Walled Garden | 148m to proposed construction access track | Negligible |

| | | | | | |
|-------------------|----------------|----------------|------------------------------------|---|------------|
| New Site | 252032, 190932 | Cremorgan | Limekiln | 240m to nearest construction access track | Negligible |
| New Site | 251675, 190760 | Baunree | Limekiln on 1 st Ed map | Proposed construction access track between BC129 and BC130 traverses site of kiln | Low-Medium |
| New Site | 250003, 184388 | Boleybeg North | Road Bridge | Guard Point between BC88 and BC89 adjacent to bridge | Low-Medium |
| Railway Underpass | 244814, 172520 | Rathduff | Railway Bridge | Proposed construction access point adjacent to bridge | Low |
| New Site | 251151, 186695 | Garryglass | Limekiln | Structure (if present) between construction access track to BC103 and BC104 | Low-Medium |
| New Site | 246892, 176830 | Ballyou skill | Limekiln | Proposed access track to BC33 traverses site of kiln | Medium |

Table 7.22 Summary of potential impacts on Cultural Heritage, Unit 5

The proposed overhead line (6 polesets) will traverse Cremorgan demesne which is listed in the NIAH garden survey (LA-55-S-523917). It is not a protected structure and the house itself is no longer extant. The garden survey is based on a desktop survey of aerial photographs and concluded that much of the land within the original demesne associated with the house is now largely indistinguishable from surrounding farmland. This was also confirmed by field work associated with this project and assessment. The southern limits of the demesne are now lined with modern houses and many of the boundaries are gone. The only surviving heritage features are the walled garden, Cremorgan Church and Graveyard and a lime kiln. The proposed 110kV line traverses the demesne in an area which is now utilised as agricultural land with multiple land owners and the line avoids the aforementioned features. No impacts on these features will therefore take place.

7.4.8 UNIT 6 - AN UPRATE OF THE EXISTING BALLYRAGGET-KILKENNY 110KV OVERHEAD LINE

7.4.8.1 Archaeological Heritage

Six National Monuments occur within 3km of the existing line due for replacement / up-rate. None of the monuments will be profoundly or significantly impacted as none of the structures associated with the existing line are positioned adjacent to the national monuments. Templemartin Church and Graveyard is located within 120m of the nearest poleset and in this regard the environment has changed slightly but without significantly impacting on the monument. The replacement of the poleset in this location will not detract from the surrounding environment and the potential impact will not change from 'slight'. Kilmademoige is located over 600m from the existing line due for up-rate. Some polesets are visible from the monument and in this regard the significance of impact would be regarded as imperceptible to slight. This is not likely to change as a result of the proposed modifications to the line.

Ten recorded monuments are located within relative close proximity to the existing line which is due for up-rate. Many of the monuments are levelled leaving no surface trace. The mound at Rathduff **KK005-024** will not be significantly impacted by the replacement of the existing angle mast. As the structure and monument are likely to be inter-visible, the existing and potential impact is slight due to a minor change in the environment.

The ringfort at Ballyragget **KK010-003** is upstanding and located 21m from the existing nearest poleset. This potential impact is considered to be slight-moderate. The poleset is clearly visible from the

monument and in this regard the significance of impact is considered to be slight due to a change in the environment / setting of the monument. This poleset will now be relocated to the south and will measure 17m to the east of the monument. An additional potential impact on the monument is the possibility of accidental damage by machinery operating within close proximity to the latter. The significance of this potential impact is moderate but may be mitigated against by fencing off the monument prior to construction and also through the presence of an archaeologist on site during construction.

The centre point (recorded from www.archaeology.ie) of the levelled enclosure **KK010-183** at Donaghmore is located 53m from the nearest structure (angle mast BK19). The full extent of the enclosure is not known therefore it is possible that the original outer extent of the monument is closer to the poleset. The significance of impact here is considered to be slight given the potential for sub-surface deposits being uncovered during the replacement process. An archaeologist should monitor ground works at angle mast BK19.

The ringfort **KK010-006** at Donaghmore townland is located 70m from the nearest poleset. The monument has been largely degraded and destroyed and therefore the overall significance of impact is slight given the potential intervisibility. No significant or profound impacts will occur.

The existing and proposed up-rated overhead line traverses the eastern extent of this levelled ringfort **KK010-141**. The nearest poleset however is located 51m from its outer extent and in this regard the significance if potential impact is considered to be slight.

The ringfort **KK014-068** at Brownstown is upstanding and well preserved although largely overgrown. An existing access track to the field extends within close proximity to the eastern extent of the monument. The existing poleset (BK76) is clearly visible from the monument and therefore due to the minor change in the setting of the fort, the significance of impact is considered to be slight. This is unlikely to change as a result of the replacement poleset. An archaeologist should monitor ground works in the vicinity of poleset to the north-west of the ringfort. The movement of machinery along the eastern side of the ringfort should be supervised by an archaeologist to avoid any potential accidental damage to the fort by machinery. The fort should be fenced off prior to construction.

For levelled monuments whose extents cannot be defined due to lack of cartographic/physical evidence the significance of potential impact has been defined as 'slight' on the basis of their proximity to the line/structures. Such impacts have been identified for monuments KK005-096, KK010-183, KK010-141 and KK010-154.

| RMP/ Nat Mon | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM LINE/NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS* |
|--|------------------|--------------------|-------------------------|---|--|
| KK010-005 Kilkenny Co Co | 245413 169973 | DONAGHMORE | Church and Graveyard | 305m | Imperceptible |
| KK010-060 Kilkenny Co Co | 247887 166914 | SHANGANNY | Church and Graveyard | 634m | Imperceptible |
| KK014-042 Kilkenny Co Co | 250994 162926 | KILMADEMOGE | Church and Graveyard | 637m | Slight - Imperceptible |
| KK014-066 Kilkenny Co Co | 251116 159847 | RADESTOWN NORTH | Church and Graveyard | 900m | Imperceptible |
| KK020-009 Kilkenny Co Co | 254959 155988 | TEMPLEMARTIN | Church and Graveyard | 120m to BK95 and 166 to BK94 angle mast | Slight |

Environmental Impact Statement for Laois-Kilkenny Reinforcement Project

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|--|------------------|--------------|----------------|---|--|
| KK005-023 Preservation Order - State | 244465 172696 | MOATPARK | Castle - motte | 530m | Imperceptible |
| KK005-096 | 245011 172202 | RATHDUFF | Enclosure | Levelled and not on 1st or 2nd Ed. maps 86m from centre point of monument to BK4 angle mast. Guard point 50m from centre point of enclosure Construction track 20m from centre of enclosure | Slight Slight-moderate Slight-Moderate |
| KK005-024 | 245190 172200 | RATHDUFF | Mound | Upstanding. 86m to ENE of BK4 angle mast. On 1st and 2nd ed. | Slight |
| KK010-003 | 245646 171007 | BALLYRAGGET | Ringfort | Upstanding. 21m from existing structure BK12. 17m from proposed new structure location. | Slight – Moderate |
| KK010-183 | 245727 169763 | DONAGHMORE | Enclosure | Levelled and not on 1st or 2nd Ed. map. 53m to BK19 | Slight |
| KK010-006 | 245940 169659 | DONAGHMORE | Ringfort | Upstanding. 70m from BK20 but in same field. | Slight |
| KK010-159 | 245850 169532 | DONAGHMORE | Enclosure | Levelled and not on 1st or 2nd ed. Not located near to structures. | Imperceptible |
| KK010-141 | 246311 168623 | CONNAHY | Enclosure | Levelled. 51m from BK24 Clearly appears on 1995 ap. Line extends over eastern ditch. | Slight |
| KK010-154 | 246359 168497 | CONNAHY | Ring-ditch | Levelled. Not on 1st or 2nd ed. map. 72m to nearest structure to north. | Slight |
| KK014-040001 | 250670 161774 | DUNMORE PARK | Enclosure | Levelled. Not on 1st or 2nd ed. map. Not on aerials. Centre dot 100m to line. Construction access track skirts around levelled enclosure. | Imperceptible Slight |

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|-----------|------------------|------------|----------|---|--|
| KK014-068 | 252463 159169 | BROWNSTOWN | Ringfort | Upstanding. On both 1 st and 2 nd Ed. map and aerials. 85m to nearest structure BK76 to north-west. Proposed construction access track to BK76 traverses eastern side of fort. | Slight (visual) Slight-Moderate |
|-----------|------------------|------------|----------|---|--|

Table 7.23 Summary of potential impacts on archaeological monuments, Unit 6

7.4.8.2 Architectural and Cultural Heritage

No structures listed in the RPS or their associated curtilages are traversed by the existing overhead line. No significant impacts will occur in this regard. Jenkinstown demesne wall is located c. 23m from the overhead line with the house itself located 720m from the line. The proximity of the demesne wall which is an associated feature of Jenkinstown House to the line has resulted in a minor change to the setting / environment of the area and so the significance of impact is slight. This is unlikely to change as a result of the replacement of the nearby polesets.

Three new sites of local heritage significance (lime kilns 4, 6 and 7) at Connahy townland are located within close proximity to the existing polesets and so the potential impact is regarded as slight. The replacement process however, may result in minor movement in structure location along the existing line. Potential damage may occur to the lime kilns therefore and the significance of impact of this varies from slight to potentially significant. The repositioning of polesets in these locations should take into account the location of the lime kilns. An archaeologist should be present during construction works associated with the replacement of these structures BK 30 and 27. The line traverses the dismantled Great Southern & Western Railway line. The proposed new poleset (BK 3) will be located c. 6m to the west of the field boundary which defines the western extent of the railway line. As the railway line is now only discernible at this location as field boundaries no impacts to this item of cultural heritage are anticipated.

| RPS | ING | TOWNLAND | STRUCTURE | DISTANCE FROM LINE/NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS |
|---------------|------------------|------------------------|-------------------------------|---|-----------------------------------|
| C479 | 245423 171394 | Ballyragget | Eden House | 130m | IMPERCEPTIBLE |
| D36 | 249545 164592 | | Dinins Bridge | 142m | IMPERCEPTIBLE |
| C350/ D100 | 248020 164498 | Jenkinstown | Jenkinstown House and gardens | 881m from house 23m from demesne wall to north | IMPERCEPTIBLE - SLIGHT |
| D16 / C452 | 248028 164668 | Jenkinstown | Jenkinstown Mill | 720m | IMPERCEPTIBLE |
| New site | 250175 163370 | Bullockhill | Lime kiln 1 | Upstanding but overgrown. 63m to east | IMPERCEPTIBLE |
| New site | 249486 164359 | Ballyraffon/ Mohill | Smithy | 137m to nearest structure to SE | IMPERCEPTIBLE |
| New site | 247996 165503 | Gragara | Lime kiln 2 | Levelled. 57m to nearest structure to NW | IMPERCEPTIBLE |
| New site | 247083 167002 | Foulksrath | Lime kiln 3 | 50m to nearest structure to SE | IMPERCEPTIBLE |
| New site | 246860 167552 | Connahy | Lime kiln 4 | 2m to nearest poleset 30 to south | MODERATE-SIGNIFICANT |

| | | | | | |
|----------|------------------|-----------------------|--|------------------------------------|----------------------|
| New site | 246760 167714 | Connahy | Lime kiln 5 | 76m to nearest poleset to north 29 | IMPERCEPTIBLE |
| New site | 246596 168087 | Connahy | Lime kiln 6 | 6m to poleset 27 to north | SLIGHT - MODERATE |
| New site | 246596 168120 | Connahy | Lime kiln 7 | 26m to nearest poleset 27 | SLIGHT - MODERATE |
| New site | 245930 169378 | Donaghmore | Lime kiln 8 | 40m to nearest poleset 21 to NE | IMPERCEPTIBLE |
| New site | 245865 169878 | Donaghmore | Lime kiln 9 | 115m to poleset 18 to NW | IMPERCEPTIBLE |
| New site | 244947 172175 | Moatpark/ Rathduff | Great Southern & Western Railway line | 6m to poleset 3 | IMPERCEPTIBLE |

Table 7.24 Summary of potential impacts on cultural heritage, Unit 6

7.4.9 UNIT 7 - A NEW 110kV BAY IN THE EXISTING KILKENNY 110kV STATION

The addition of a new bay at the Kilkenny substation has no archaeological, architectural or cultural heritage implications either direct or indirect (visual). The substation is existing and the addition of an additional bay is not likely to detract from the cultural heritage landscape of the area.

7.4.10 UNIT 8 - MODIFICATIONS TO EXISTING ATHY-PORTLAOISE 110kV LINE

7.4.10.1 Archaeological Heritage

| RMP | ING | TOWNLAND | MONUMENT TYPE | DISTANCE FROM LINE / NEAREST STRUCTURE | SIGNIFICANCE OF POTENTIAL IMPACTS* |
|-----------|------------------|-------------|-----------------------|---|------------------------------------|
| LA018-066 | 252902 194284 | LOUGHTEEOG | Moated site | Levelled. 335m to AP105 angle mast | Imperceptible |
| LA018-068 | 252777 194376 | MONEY UPPER | Field system | Levelled. 460m to AP105 | Imperceptible |
| New site | 253113 193022 | MONEY UPPER | Possible Field System | Levelled. 38m to polesets AP101 and AP102 | Slight |

Table 7.25 Summary of potential archaeological impacts, Unit 8

The occurrence of landscape cropmark field systems in the area demonstrates the possibility of uncovering sub-surface deposits associated with ground disturbance along this route. Also given the proximity of the proposed works to the newly recorded possible field system, an archaeologist should monitor the construction works associated with the replacement of AP 101 and 102. Pre-construction archaeological testing of angle mast AP105 should be undertaken to confirm whether sub-surface deposits are present. This is recommended here in accordance with the requirements of DAHG. No visual impacts will occur however.

7.4.10.2 Architectural Heritage

The existing Athy-Portlaoise 110kV line does not traverse any curtilage associated with any protected structures. The nearest structure listed in the RPS is the gatelodge (RPS617) in Lambertton Demesne townland. The modifications to the existing section of the overhead line in this area will not impact on the nearby protected structure, its curtilage or defining boundary. No other protected structures are located within close proximity.

7.4.11 POTENTIAL DECOMMISSIONING IMPACTS

The predicted lifespan of the development is approximately 50-60 years. During this period only regular maintenance of structures will occur with some wooden poleset replacement if necessary. In the event that part of or the entire development infrastructure is to be decommissioned, all structures and equipment and material will be removed. The suggested archaeological mitigation for the construction stage of the development will have been completed and any potential archaeological issues addressed.

The only potential decommissioning impacts associated with the decommissioning phase of the project would be the movement of machinery within close proximity to archaeological or cultural heritage features. In order to minimise such potential impact, archaeological monitoring of machinery in the vicinity of cultural heritage sites should be undertaken. Furthermore, the use of the existing farm tracks and the construction access tracks already identified would also minimise any potential impacts.

7.4.12 CUMULATIVE IMPACTS

Cumulative impact is defined as 'The addition of many small impacts to create one larger, more significant, impact' (EPA 2002, 33). It is also defined as 'impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project' (EC 1999).

In this regard in order to assess overall cumulative effects on cultural heritage the proposed project is considered in the context of the existing Dunstown-Moneypoint line at the northern end of the proposed development. It may be perceived that cumulative effects would increase in the light of the current proposal given the presence of an existing 400kV line in this area. Potential cumulative impacts on Timahoe Round Tower, the Rock of Dunamase and nearby recorded archaeological monuments were considered. Due to the distance and mature vegetation that divides Timahoe from the proposed development no cumulative impacts are anticipated. Similarly the Rock of Dunamase is screened by natural topography and cumulative impacts will not occur therefore. A number of recorded archaeological monuments are located immediately north of the existing Dunstown-Moneypoint line and the proposed 400kV line (Unit 2). No potential cumulative impacts on these monuments have been identified however as they have no above ground expression and are identifiable only from aerial photography. The potential for cumulative impact was also considered at Ballyragget Substation (Unit 4) where there is an existing line. No such impacts were identified as no National or Recorded Monuments are located within the immediate vicinity of the site.

A search of the local authorities planning websites was undertaken to obtain information on potential foreseeable projects in the immediate vicinity of the current proposals (500m on either side of the proposed development). No large scale projects which could result in cumulative visual impacts were noted from this search.

7.5 MITIGATION¹⁷

The detailed appraisal process i.e. constraints report, route selection report and assessment of the preferred route has resulted in no profound or significant impacts on the archaeological, architectural or cultural heritage along the proposed reinforcement project being identified. Whilst a number of mitigation measures are required, the majority of archaeological, architectural and cultural heritage features were

¹⁷ Potential interactions between Cultural Heritage and Soils and Geology (Section 9), Water (Section 10) and Ecology (Section 8) were identified in the recommended mitigation of archaeological testing at the proposed 400kV tower locations and the proposed substation sites (Unit 1 Coolnaback and Unit 4 Ballyragget). Such testing has the potential to impact on watercourses, soils and flora and fauna. Such potential interaction impacts on Water will be negated however as test trenches will not encroach on watercourses. Similarly, potential impacts on soils can be mitigated by those measures outlined in the soils and geology section regarding reinstatement and waste management. Ecological interactions are mitigated as the habitats in the footprint of the structures and substation sites where test trenching is proposed are confirmed to be of low ecological significance.

'designed out' of the proposed development. The following is recommended in the interest of protecting the archaeological heritage:

Any lands containing recorded monuments and newly discovered sites to which access was not permitted at the time of survey should be inspected by an archaeologist prior to the commencement of construction works.

The following mitigation measures are recommended and discussed according to each unit. All mitigation measures are suggestions only and are done so in the interest of safeguarding the archaeological, architectural and cultural heritage. Such mitigation measures should be included in the Construction, Environmental and Management Plan (CEMP) for the project.

7.5.1 UNIT 1 - NEW 400/110KV GIS SUBSTATION AT COOLNABACKY TOWNLAND, CO. LAOIS

- Given the presence of crop marked field systems (both recorded monuments and new sites – see Sections 0 and 7.3.1.2.3) within proximity to the substation site, it is recommended that the proposed substation site be archaeologically tested prior to the commencement of construction. The use of geophysical survey should also be considered at the earliest stage possible in order to detect previously unknown sites of potential. A report outlining the results of the testing will be submitted to the DAHG and the National Museum for consideration. Should archaeological finds or features be uncovered during the testing preservation *in situ*, preservation by record (excavation) or further monitoring of ground works may be required.

7.5.2 UNIT 2 - NEW CONNECTION TO COOLNABACKY FROM THE EXISTING MONEYPOINT-DUNSTOWN 400KV LINE

- Pre-construction licensed archaeological testing of all tower bases along the 400kV line as requested by the DAHG in pre-planning consultation. A report should be submitted to the Local Authority and the DAHG for consideration. Should archaeological finds or features be uncovered during the testing preservation *in situ*, preservation by record (excavation) or further monitoring of ground works may be required.
- Access to the proposed line at the construction stage of the development will largely utilise existing roads, tracks and farm passages where present. Impacts on the archaeology or cultural heritage by the tracking/ operating of heavy machinery on such access routes are therefore likely to be minimal. In the interest of ensuring that such impacts do not occur an examination of the proposed construction access routes adjacent to Recorded Monuments/Cultural Heritage features which were not subject to field survey (permission was not granted) should be undertaken by an archaeologist prior to the commencement of the development. Access tracks which extend close to a recorded monument should be clearly delineated prior to commencement of construction and machinery should not deviate from the delineated track.

7.5.3 UNIT 3 NEW CONNECTION TO COOLNABACKY FROM THE EXISTING ATHY-PORTLAOISE 110KV LINE

- Pre-construction licensed archaeological testing of the proposed cable routes. A report should be submitted to the Local Authority and the DAHG for consideration. Should archaeological finds or features be uncovered during the testing preservation *in situ*, preservation by record (excavation) or further monitoring of ground works may be required.

7.5.4 UNIT 4 - A NEW 110KV / 38KV / MV SUBSTATION IN BALLYRAGGET, CO. KILKENNY

- Pre-construction licensed archaeological testing of the substation site should be undertaken by a licensed archaeologist and a report submitted to the relevant authorities for consideration. This is in order to mitigate against the presence of potential sub-surface archaeological finds, features or

deposits. Should archaeological finds or features be uncovered during the testing preservation *in situ*, preservation by record (excavation) or further monitoring of ground works may be required.

7.5.5 UNIT 5 - A NEW 110kV OVERHEAD LINE BETWEEN BALLYRAGGET AND COOLNABACKY

- Access tracks which extend close to a recorded monument or a cultural heritage feature should be clearly delineated prior to commencement of construction and machinery should not deviate from the delineated track.
- Geophysical Survey should be undertaken in the vicinity of the KK005-095 Field System and KK005-094 Enclosure where it is proposed to access the site and construct the poleset. This should be undertaken prior to construction taking place to confirm the extent of the identified field system. This may be followed by archaeological testing depending on the results of the geophysics.
- Pre-development archaeological testing (depending on the results of the geophysics) of poleset BC5 in order to confirm whether any sub-surface archaeological deposits are present in the area of the proposed poleset. A report on the testing will be submitted to the Local Authority and the DAHG for consideration. Should archaeological finds or features be uncovered during the testing preservation *in situ*, preservation by record (excavation) or further monitoring of ground works may be required.
- Archaeological monitoring of Poleset BC5 and BC6 at Rathduff due to proximity of leveled enclosure KK005-094 and KK005-095.
- Consider utilizing alternative access track (existing farm track) between BC5 and BC6
- Archaeological Monitoring of BC12 and movement of machinery along construction access track – 19m from possible ringfort
- Archaeological monitoring of angle mast BC18 adjacent to field system KK005-016 at Ballymartin.
- Archaeological Monitoring of poleset and associated construction access track to BC109 adjacent to levelled enclosure LA024-025
- Archaeological Monitoring of machinery along construction access track between BC103 and BC104 adjacent to limekiln on 1st Ed map
- Archaeological Monitoring of guard point construction between BC88 and BC89 adjacent to Boleybeg Bridge
- Archaeological monitoring of machinery along access track to BC56 in the vicinity of ringfort LA030-022
- Archaeological monitoring of machinery along proposed construction access track to BC33 due to limekiln in area of track (1st Ed map)
- Archaeological monitoring of poleset BC75 and associated construction access track adjacent to LA030-016
- Archaeological monitoring of guard point and access tracks associated with BC46 and BC47 adjacent to Ecclesiastical Complex at Loughill KK001-004
- Archaeological monitoring of BC131 and associated guard point adjacent to possible Fulacht Fiadh (Aerial Photo) at Cremorgan.
- Archaeological Monitoring of movement of machinery along proposed construction access track between BC129 and BC130 due to site of limekiln on 1st Ed map.
- Archaeological monitoring of BC147 adjacent to Possible Field System at Money Lower.

7.5.6 UNIT 6 - AN UPRATE OF THE EXISTING BALLYRAGGET-KILKENNY 110kV OVERHEAD LINE

- Proposed construction access tracks which extend close to a recorded monument or cultural heritage feature should be clearly delineated prior to commencement of construction and machinery should not deviate from the delineated track.
- Avoidance of any direct impacts on Dunmore Park demesne Wall when re-positioning poleset BK61 at WL58/59 boundary
- Archaeological monitoring of BK4 angle mast, guard points and movement of machinery adjacent to KK005-096 and 024

- Archaeological monitoring of BK12 poleset replacement adjacent to ringfort at Ballyragget KK010-003. Given the proximity of the monument to the proposed works, it is recommended that the monument be temporarily fenced off prior and during construction works. A 15m buffer zone should be established around the monument (see Figure 7.38). The movement of machinery to the east of the ringfort should also be supervised by an archaeologist after the ringfort has been fenced off.
- Archaeological monitoring of ground works at angle mast BK19 and movement of construction machinery. The centre point of the levelled enclosure KK010-183 at Donaghmore is located 53m from the nearest structure. The full extent of the enclosure is not known therefore it is possible that the original outer extent of the monument is closer to the poleset.
- Archaeological monitoring of ground works associated with BK24 due to its proximity to levelled enclosure KK010-141.
- Archaeological monitoring of ground works associated with BK25 due to presence of levelled monument KK010-154 and several similar monument types to SW.
- Archaeological monitoring of BK62 and associated movement of machinery adjacent to KK014-040 levelled ringfort
- Archaeological monitoring of poleset BK76 adjacent and to NW of ringfort KK014-068 at Brownstown. Archaeological monitoring of movement of machinery along proposed construction access track to BK76 due to proximity to KK014-68.
- An archaeologist should record (including drawings and photographs) the limekiln 4 prior to the commencement of development.
- Archaeological monitoring of poleset replacement BK 30 and 27 adjacent to three new sites of local heritage significance (lime kilns 4, 6 and 7) at Connahy. The replacing of polesets in these locations should take into account the location of the lime kilns.

7.5.7 UNIT 7 - A NEW 110kV BAY IN THE EXISTING KILKENNY 110kV STATION

No mitigation necessary.

7.5.8 UNIT 8 - MODIFICATIONS TO EXISTING ATHY-PORTLAOISE 110kV LINE

- Archaeological monitoring of replacement of polesets AP101 and 102 due to proximity to field systems.
- Pre-development archaeological testing of AP105 due to its location in an area high in occurrence of crop-marked field systems. A report on the testing should be submitted to the Local Authority and the DAHG for consideration. Should archaeological finds or features be uncovered during the testing preservation *in situ*, preservation by record (excavation) or further monitoring of ground works may be required.
- Access tracks which extend close to a recorded monument or cultural heritage feature should be clearly delineated prior to commencement of construction and machinery should not deviate from the delineated track.

7.6 RESIDUAL IMPACT

'Predicted Impacts' are defined as the impacts which are expected to occur (Guidelines on the information to be contained in Environmental Impact Statements 2002, p.23) and no such impacts should occur as part of the reinforcement project. Mitigation measures have been recommended and no 'predicted' impacts should occur as part of the development if the necessary mitigation measures are put in place.

The residual impacts are likely to be low or negligible if the recommended mitigation measures are implemented. The residual impacts are summarised according to unit. Residual impacts are defined as the overall impact of the development on the cultural heritage on the basis of implementing the mitigation measures recommended in this EIS.

7.6.1 UNIT 1 - NEW 400/110kV GIS SUBSTATION AT COOLNABACKY TOWNLAND, CO. LAOIS

| Potential impacts | Mitigation strategy | Residual impacts |
|---|---|------------------|
| Construction impacts | | |
| Topsoil removal associated with the substation may damage as yet unknown sub-surface archaeological deposits. | Licensed archaeological testing of substation site prior to construction. Consultation with DAHG should archaeology be uncovered. | Low-Medium |
| Impact on Recorded Archaeological Monuments | None | None |
| Operational impacts | | |
| Potential impacts on National & Recorded Monuments | No mitigation. No structures positioned within close proximity to monuments. | Negligible |

Table 7.26 Residual Impacts Unit 1

7.6.2 UNIT 2 - NEW CONNECTION TO COOLNABACKY FROM THE EXISTING MONEYPPOINT-DUNSTOWN 400kV LINE

| Potential impacts | Mitigation strategy | Residual impacts |
|--|--|------------------|
| Construction impacts | | |
| Topsoil removal associated with construction of new tower bases may damage as yet unknown sub-surface archaeological deposits. | Licensed archaeological testing of tower bases site prior to construction. Consultation with DAHG should archaeology be uncovered. | Low-Medium |
| Physical impact on Recorded, National Monuments and Cultural Heritage Items | No occurrences. | Negligible |
| Operational impacts | | |
| Potential impacts on National & Recorded Monuments and Architectural Heritage Features | Recorded monuments are levelled therefore no mitigation necessary. No structures positioned within close proximity to Monuments or Heritage buildings. | Negligible |

Table 7.27 Residual Impacts Unit 2

7.6.3 UNIT 3 NEW CONNECTION TO COOLNABACKY FROM THE EXISTING ATHY-PORTLAOISE 110KV LINE

| Potential impacts | Mitigation strategy | Residual impacts |
|---|---|------------------|
| Construction impacts | | |
| Topsoil removal associated with construction of 100-200m cable route may damage as yet unknown sub-surface archaeological deposits. | Licensed archaeological testing of cable route prior to construction. Consultation with DAHG should archaeology be uncovered. | Low-Medium |
| Physical impact on Recorded, National Monuments and Cultural Heritage Items | No occurrences. | Negligible |
| Operational impacts | | |
| Sub-surface | No mitigation necessary. | Negligible |

Table 7.28 Residual Impacts Unit 3

7.6.4 UNIT 4 - A NEW 110KV / 38KV / MV SUBSTATION IN BALLYRAGGET, CO. KILKENNY

| Potential impacts | Mitigation strategy | Residual impacts |
|---|---|------------------|
| Construction impacts | | |
| Topsoil removal associated with construction of new GIS substation may damage as yet unknown sub-surface archaeological deposits. | Licensed archaeological testing of substation site prior to construction. Consultation with DAHG should archaeology be uncovered. | Low-Medium |
| Physical impact on Recorded, National Monuments and Cultural Heritage items. | No occurrences. | Negligible |
| Operational impacts | | |
| Potential Visual Impacts on National Monument | Motte KK005-023 – no mitigation. | Low |

Table 7.29 Residual Impacts Unit 4

| Potential impacts | Mitigation strategy | Residual impacts |
|--|---|--------------------------|
| | <p>which traverses site of kiln</p> <p>Consultation with DAHG should archaeology be uncovered.</p> | |
| Physical impact on Recorded, National Monuments and Cultural Heritage items. | No occurrences. | Negligible |
| Machinery access may traverse on or near to recorded monuments. | <ul style="list-style-type: none"> Utilise existing farm tracks where possible An examination of access routes adjacent to Recorded Monuments should be undertaken by an archaeologist prior to the commencement of the development | Low Low |
| Operational impacts | | |
| Potential Visual Impacts on National Monuments and Recorded Monuments | <ul style="list-style-type: none"> National Monument LA018-021 Cremorgan National Monument LA030-026 Kilcronan National Monument Kk005-023 Motte Recorded Monument KK001-004(1-9) Loughill | Low Low Low Low |

Table 7.30 Residual Impacts Unit 5

7.6.6 UNIT 6 - AN UPRATE OF THE EXISTING BALLYRAGGET-KILKENNY 110KV OVERHEAD LINE

| Potential impacts | Mitigation strategy | Residual impacts |
|---|---|--|
| Construction impacts | | |
| Topsoil removal associated with construction of replacement towers and polesets may damage as yet unknown sub-surface archaeological deposits or adjacent recorded monuments. | <ul style="list-style-type: none"> Archaeological monitoring of BK4 angle mast adjacent to KK005-096 and 024, guard point erection and movement of machinery. Archaeological monitoring of Poleset BK12 adjacent to ringfort KK010-003 and monitoring of movement of machinery in vicinity of ringfort Archaeological monitoring of angle mast BK 19 adjacent to levelled enclosure KK010-183 Archaeological monitoring of BK24 adjacent to levelled enclosure KK010-141 Archaeological monitoring of BK25 due to presence of levelled monument KK010-154 to SW Archaeological monitoring of BK62 and associated movement of machinery adjacent to KK014-040 enclosure Archaeological monitoring of poleset to NW of ringfort KK014-068 and proposed construction access track to BK76 at Brownstown Record limekiln 4 prior to commencement of construction. | Low-Medium Low-Medium Low-Medium Low-Medium Low-Medium Low-Medium Low-Medium |

| Potential impacts | Mitigation strategy | Residual impacts |
|---|---|--------------------------|
| | <ul style="list-style-type: none"> Archaeological Monitoring of BK30 and BK27 adjacent to 3 new lime kilns 4, 6 and 7 at Connahy. <p>Consultation with DAHG should archaeology be uncovered.</p> | Low-Medium |
| Potential Physical impact on Dunmorepark Demesne Wall at WL58/59 boundary by replacing of poleset BK61. | No disturbance should occur to the fabric of the wall | Low |
| Machinery access may traverse on or near to recorded monuments. | <ul style="list-style-type: none"> Utilise existing farm tracks where possible An examination of access routes adjacent to Recorded Monuments should be undertaken by an archaeologist prior to the commencement of the development | Low Low |
| Operational impacts | | |
| Potential Visual Impacts on National Monuments and Recorded Monuments | <p>No Mitigation possible for:</p> <ul style="list-style-type: none"> NM KK020-009 Templemartin Church and Gr. KK005-024 Mound Rathduff KK010-003 Ringfort Ballyragget KK010-006 Ringfort Donaghmore KK014-068 Ringfort Brownstown | Low Low Low Low |

Table 7.31 Residual Impacts Unit 6

7.6.7 UNIT 7 - A NEW 110KV BAY IN THE EXISTING KILKENNY 110KV STATION

No residual impacts anticipated.

7.6.8 UNIT 8 - MODIFICATIONS TO EXISTING ATHY-PORTLAOISE 110KV LINE

| Potential impacts | Mitigation strategy | Residual impacts |
|--|--|------------------|
| Construction impacts | | |
| Topsoil removal associated with construction of replacement angle masts and polesets may damage as yet unknown sub-surface archaeological deposits or adjacent recorded monuments. | <p>Archaeological monitoring of replacement of AP101 and 102 polesets due to proximity to field systems.</p> <p>Pre-development archaeological testing of AP105 angle mast due to its location within crop-marked field system landscape</p> | Low-Medium |
| Physical impact on Recorded, National Monuments and Cultural Heritage items. | No occurrences. | Negligible |
| Machinery access may traverse on or near to recorded monuments | <ul style="list-style-type: none"> Utilise existing farm tracks where possible An examination of access routes which were not accessed due to lack of permission adjacent to Recorded Monuments/Cultural Heritage features should be undertaken by an archaeologist prior to the commencement of the development | Low |

| Potential impacts | Mitigation strategy | Residual impacts |
|---|---|------------------|
| Operational impacts | | |
| Potential Visual Impacts on National Monuments and Recorded Monuments | <ul style="list-style-type: none"> • No National Monuments nearby. • Recorded Monuments are levelled. | None None |

Table 7.32 Residual Impacts Unit 8

7.7 INTERRELATIONSHIPS BETWEEN ENVIRONMENTAL FACTORS

This section should be read in conjunction with Section 6 *Landscape* and Chapter 5 *Human Beings and Population* (with regard to tourism and amenities) for a full understanding of the main interactions between these environmental topics.

The potential for visual impact on recorded archaeological monuments and cultural heritage features as a result of the proposed reinforcement project was examined in previous sections of this chapter. Such potential impacts were also evaluated in the Landscape and Visual Impact section of the EIS with specific reference to effects on views from the Rock of Dunamase and Timahoe round tower. No potential visual impacts on these aspects of the landscape were identified as the proposed development is not visible from either monument.

Potential interactions between *Cultural Heritage* and *Soils and Geology* (Section 9), *Water* (Section 10) and *Ecology* (Section 8) were identified in the recommended mitigation of archaeological testing at the proposed 400kV tower locations and the proposed substation sites (Unit 1 Coolnabacky and Unit 4 Ballyragget). Such testing has the potential to impact on watercourses, soils and flora and fauna. Such potential interaction impacts on water will be negated however as test trenches will not encroach on watercourses. Similarly, potential impacts on soils can be mitigated by those measures outlined in the soils and geology section regarding reinstatement and waste management. Ecological interactions are mitigated as the habitats in the footprint of the structures and substation sites where test trenching is proposed are confirmed to be of low ecological significance.