

Drumlins Park Wind Farm Substation & Grid Connection

# Chapter 10: Cultural Heritage

## Drumlins Park Limited

Galetech Energy Services Clondargan, Stradone, Co. Cavan Ireland Telephone +353 49 555 5050

www.galetechenergy.com



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## 10.1 Introduction

This chapter has been prepared to assess and define any likely significant impacts or effects which the construction and operation of the proposed development may have on the archaeological, architectural and cultural heritage resource.

The chapter includes an identification of likely significant impacts or effects which may arise and outlines mitigation measures, based on current information, which may be used to avoid, reduce or offset any likely adverse effects. In addition, the chapter includes an assessment of the scoping response received from Fermanagh and Omagh District Council (see **Annex 1.6**) regarding possible visual impacts on monuments and other features of built heritage in Northern Ireland.

## 10.1.1 Objectives

The objectives of this chapter are to:-

- Identify all known features of archaeological, architectural and cultural heritage importance in the vicinity of the proposed development;
- Determine any likely effects of the proposed development on the archaeological, architectural and cultural heritage resource; and
- Identify measures to mitigate any likely effects of the development on the archaeological, architectural and cultural heritage resource.

The following key issues are addressed:-

- Direct and indirect effects of the construction of the development on the archaeological, architectural and cultural heritage resource;
- Direct and indirect effects of the operation of the development on the archaeological, architectural and cultural heritage resource; and
- Cumulative effects of the construction and operation of the development on the archaeological, architectural and cultural heritage resource with other existing, permitted or proposed developments or projects.

## 10.1.2 Description of the Proposed Development

A full description of the proposed development is presented in **Chapter 3**. In summary, the proposed development comprises the following main components:-

- A 110 kilovolt (kV) 'loop-in/loop-out' Air-Insulated Switchgear (AIS) electrical substation, including single-storey control buildings and all associated electrical equipment;
- Approximately 700m of 110kV underground electricity lines;
- Replacement of 1 no. existing pole-set with 2 no. lattice-type end masts, to a maximum height of up to 16m; and
- All associated and ancillary site development, excavation, construction, landscaping and reinstatement works, including provision of site drainage infrastructure.

The entirety of the proposed development is located within the administrative area of County Monaghan; while candidate quarries which may supply construction materials are also located within County Cavan.

#### 10.1.3 Statement of Authority

#### 10.1.3.1 Dermot Nelis BA ArchOxon AIFA MIAI



Dermot Nelis graduated from Queen's University Belfast and, after gaining extensive fieldwork experience, undertook postgraduate studies at the University of Oxford in archaeological consultancy and project management.

Dermot has acted as Senior Archaeologist on several road schemes and has directed large-scale multi-period excavations associated with those developments. He has completed over 170 licensed fieldwork programmes and over 250 archaeological, architectural and cultural heritage desk-based reports, including assessments for Environmental Impact Statements and Environmental Impact Assessment Reports.

#### 10.2 Methodology

#### 10.2.1 Study Area

There is no professional standard for defining the extent of a study area when assessing the likelihood of effects on archaeological, architectural or cultural heritage remains. A 1km study area has been applied around the proposed development to assess for the presence of statutorily protected archaeological remains (RMP sites).

In addition, a 3km study area has been applied around the proposed development to assess for the presence of any World Heritage Sites, sites included in the Tentative List as consideration for nomination to the World Heritage List, National Monuments, sites with Preservation Orders or Temporary Orders, Protected Structures, Conservation Areas or Proposed Conservation Areas.

A 1km study area has been applied around the proposed development to record the presence of any structures recorded on the National Inventory of Architectural Heritage (NIAH). An assessment has also been made of any historic gardens or designed landscapes as recorded on the NIAH that may exist within the proposed development site.

#### 10.2.2 Sources of Information

Research has been undertaken in two phases. The first phase comprised a desk review; namely a paper and digital survey of archaeological, historical and cartographic sources. The second phase involved a field inspection of the proposed development site. Each phase is outlined in the following sections.

The following sources were examined and a list of sites and areas of archaeological, architectural and cultural heritage potential was compiled:-

- Record of Monuments and Places of County Monaghan;
- Topographical Files of the National Museum of Ireland;
- Cartographic and documentary sources relating to the study area;
- Aerial photographs of Ordnance Survey Ireland and Bing aerial photography;
- Monaghan County Development Plan 2019 2025;
- National Inventory of Archaeological Heritage;
- Environmental Protection Agency's Guidelines on the Information to be Contained in Environmental Impact Statements (2002) and Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2017); and
- Northern Ireland's National Monuments and Buildings Record.

Record of Monuments and Places (RMP) is a list of archaeological sites known to the



National Monuments Service. Back-up files of the Sites and Monuments Record (SMR) provide details of documentary sources and field inspections where these have taken place.

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

Cartographic sources are important in tracing land-use development within an area of land take, as well as providing important topographical information on sites and areas of archaeological potential. Cartographic analysis of relevant maps has been made to identify any topographical anomalies that may no longer remain within the landscape.

Documentary sources were consulted to gain background information on the historical and archaeological landscape of the wider development area.

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its potential to contain previously unidentified archaeological remains.

Monaghan County Development Plan (2019 - 2025) contains Policies on the preservation and management of archaeological, architectural and cultural heritage features.

National Inventory of Architectural Heritage (NIAH) is a section within the Department of Culture, Heritage and the Gaeltacht. The work of NIAH involves identifying, recording and evaluating, on a non-statutory basis, the architectural heritage of Ireland from 1700 to the present day. The NIAH website also contains a non-statutory register of historic gardens and designed landscapes in County Monaghan, and this was assessed to look for the presence of any such features within the proposed development site.

Environment Protection Agency's "Guidelines on the Information to be Contained in Environmental Impact Statements" and "Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports" provide definitions for potential effects on archaeological, architectural and cultural heritage remains.

Northern Ireland's National Monuments and Buildings Record holds information on elements of the built environment and includes databases, written records, maps, photographs, drawn and digital images *etc*.

#### 10.2.3 Field Inspection

Field inspection is necessary to determine the extent, character and condition of archaeological, architectural and cultural heritage features, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information.

A site visit took place on 13 September 2019 and areas of land take associated with the proposed development were walked and visually assessed. Detailed walkover surveys of the now-permitted Drumlins Park Wind Farm site were carried out on 11 October 2018 and 13 September 2019 as part of the cultural heritage impact assessment and EIAR prepared in respect of that development.





Figure 10.1: Proposed Site Location





Figure 10.2: Aerial photograph of proposed development site

## 10.2.4 Significance Criteria

The likelihood of significant effects can be identified from detailed information about a project, the nature of the area affected and the range of resources potentially affected. The construction and operation of electrical substations, grid connections and their associated activities can affect the archaeological, architectural and cultural heritage resource of a given landscape in a number of ways:-

- Permanent and temporary land-take, associated structures, landscape mounding and their construction may result in damage to or loss of archaeological remains and deposits, or physical loss to the setting of historic monuments and to the physical coherence of the landscape;
- Disturbance by excavation, topsoil stripping and the passage of heavy machinery, disturbance by vehicles working in unsuitable conditions, burial of sites thus limiting accessibility for future archaeological investigation;
- Hydrological changes in groundwater or surface water levels can result from construction activities such as de-watering and spoil disposal, or long-term changes in drainage patterns. These may desiccate archaeological remains and associated deposits;
- Visual and noise effects on the historic landscape can arise from construction traffic and facilities, built earthworks and structures, landscape mounding and planting, noise, fences and associated works. These features can impinge



directly on historic structures and historic landscape elements as well as their visual amenity value;

- Landscape measures, such as tree planting, can damage sub-surface archaeological features due to topsoil stripping and through the root action of trees and shrubs as they grow;
- Ground consolidation by construction activities or the weight of permanent embankments can cause damage to buried archaeological remains, especially in colluvium or peat deposits;
- Disruption due to construction also offers the potential for adversely affecting archaeological remains. This can include machinery, site offices, service trenches, etc; and
- Although not widely appreciated, positive effects can accrue from permitted developments. These can include positive resource management policies, improved maintenance and access to archaeological monuments, and the increased level of knowledge of a site or historic landscape as a result of assessment and fieldwork.

There is no standard scale against which the significance of likely effects on the archaeological and historic landscape may be judged. The severity of a given level of land take or visual intrusion varies with the type of monument, site or landscape features and its environment. Significance of effect can be judged taking the following into account:-

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

For this assessment, the significant effects criteria outlined in Table 10.1 are used.

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

#### Table 10.1: Significance of Effects

#### 10.3 Policy and Legislation



#### 10.3.1 Archaeological Resource

The National Monuments Act, 1930 to 2004 and relevant provisions of the National Cultural Institutions Act, 1997 are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date, except buildings habitually used for ecclesiastical purposes.

A number of mechanisms under the National Monuments Act are applied to secure the protection of archaeological monuments. These include the Record of Monuments and Places, the Register of Historic Monuments, the placing of Preservation Orders and Temporary Preservation Orders on endangered sites, and National Monuments in the Ownership or Guardianship of the Minister for Culture, Heritage and the Gaeltacht or a Local Authority.

The Minister may acquire National Monuments by agreement or by compulsory order. The State or a Local Authority may assume guardianship of any National Monument (other than dwellings). The owners of National Monuments (other than dwellings) may also appoint the Minister or a Local Authority as Guardian of that monument if the State or Local Authority agrees. Once the site is in ownership or Guardianship of the State, it may not be interfered with without the written consent of the Minister.

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

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

Section 12(1) of the 1994 Act requires the Minister to establish and maintain a Record of Monuments and Places where the Minister believes that such monuments exist. The Record comprises a list of monuments and relevant places and a map/s showing each monument and relevant place in respect of each county in the State. All sites recorded on the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994.

Section 12(3) of the 1994 Act provides that:-

"where the owner or occupier (other than the Minister for Arts, Heritage and the Gaeltacht) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister of Arts, Heritage and the Gaeltacht to carry out work and shall not, except in the case of urgent necessity and with the consent of



the Minister, commence the work until two months after the giving of notice" (<u>www.archaeology.ie</u>).

## 10.3.2 Architectural and Built Heritage Resource

The main laws protecting the built heritage are the Architectural Heritage (National Inventory) and Historic Properties (Miscellaneous Provisions) Act, 1999 and the Planning and Development Act 2000 (as amended). The Architectural Heritage Act requires the Minister to establish a survey to identify, record and assess the architectural heritage of the country. The National Inventory of Architectural Heritage records built heritage structures within all the counties of the State. As inclusion in the Inventory does not provide statutory protection, the document is used to advise Local Authorities on compilation of a Record of Protected Structures (RPS) as required by the Planning and Development Act 2000.

The Planning and Development Act 2000 (as amended) requires Local Authorities to establish a Record of Protected Structures to be included in the County Development Plan. This Plan includes objectives designed to protect the archaeological, architectural and cultural heritage resource during the planning process. Buildings recorded in the RPS can include Recorded Monuments, structures listed in the NIAH, or buildings deemed to be of architectural, archaeological or artistic importance by the Minister. Sites, areas or structures of archaeological, architectural or artistic interest listed in the RPS receive statutory protection from injury or demolition under the 2000 Act. Damage to or demolition of a site registered on the RPS is an offence. The RPS list is not always comprehensive in every county.

A Local Authority has the power to order conservation and restoration works to be undertaken by the owner of a Protected Structure if it considers the building in need of repair. An owner or developer must make a written request to a Local Authority to carry out any works on a Protected Structure and its environs, which will be reviewed within 12 weeks of application. Failure to do so may result in prosecution.

## 10.4 Description of the Existing Environment

#### 10.4.1 General Archaeological and Historical Background

Monaghan is a landlocked county which is characterised by rolling drumlin hills interspersed with lakes, trees and woodlands. The high ground drumlins, which formed during glaciation as ice moulded deposits of till, create the classic "basket of eggs" topography, while in the low ground the till is rich in clay. Bedrock generally consists of limestone and shale. There are extensive areas of blanket bog in the north of County Monaghan.

The county contains 129,093 acres of land (1.9% of the total area of the Republic of Ireland). Of this, 69% is given over to agriculture, 4% to forestry and 1.7% is covered by lakes (www.monaghan.ie).

During the Mesolithic period (c. 7,000-4,000 BC) people existed as hunters/gatherers, living on the coastline, along rivers and lakesides. They used flint and other stones to manufacture sharp tools, and locating scatters of discarded stone tools and debris from their manufacture can sometimes identify settlements.

The earliest evidence for prehistoric settlement in County Monaghan dates from the Neolithic period (c. 4,000-2,400 BC). During this period the population became more settled with a subsistence economy based on crop growing and stock-raising. This



period of prehistory in Monaghan is represented by megalithic tombs, burials and stray finds of stone axes which are a characteristic artefact of the Neolithic period. Three Neolithic structures were discovered as part of the Carrickmacross Bypass along with numerous pottery sherds (www.archaeology.ie).

The Bronze Age (c. 2,400-600 BC) is characterised by the introduction of metalworking technology to Ireland and coincides with many changes in the archaeological record, both in terms of material culture as well as the nature of the sites and monuments themselves. Though this activity has markedly different characteristics to that of the preceding Neolithic period, including new structural forms and new artefacts, it also reflects a degree of continuity.

Bronze Age monuments from County Monaghan include standing stones, cist and pit burials, cairns, barrows, rock art and *fulachta fiadh*, which are one of the most numerous monument types in Ireland with over 4,500 examples recorded (Waddell 2005, 174).

During the Iron Age (c. 600 BC-400 AD) new influences came into Ireland which gradually introduced the knowledge and use of iron, although for several centuries bronze continued to be widely used. The Iron Age in Ireland however is problematic for archaeologists as few artefacts dating exclusively to this period have been found, and without extensive excavation it cannot be determined whether several monument types, such as ring-barrows or standing stones, date to the Bronze Age or Iron Age.

The Early Medieval period (c. 400-1169 AD) is depicted in the surviving sources as entirely rural, characterised by the basic territorial unit known as *túath*. Walsh (2000, 30) estimates that there were at least 100, and perhaps as many as 150, kings in Ireland at any given time during this period, each ruling over his own *túath*.

During this turbulent period roughly circular defensive enclosures known as ringforts were constructed to protect farmsteads. They were enclosed by an earthen bank and exterior ditch, and ranged from approximately 25m to 50m in diameter. The smaller sized and single banked type (univallate) was more than likely home to the lower ranks of society, while larger examples with more than one bank (bivallate/trivallate) housed the more powerful kings and lords. They are regarded as defended family homesteads, and the extant dating evidence suggests they were primarily built between the 7<sup>th</sup> and 9<sup>th</sup> centuries AD (Stout 1997, 22-31).

The ringfort is considered to be the most common indicator of settlement during the Early Medieval period. The most recent detailed study (*ibid.*, 53) has suggested that there is an approximate total of 45,119 potential ringforts or enclosure sites throughout Ireland.

Enclosures belong to a classification of monument whose precise nature is unclear. Often they may represent ringforts, which have either been damaged to a point where they cannot be positively recognised, or are smaller or more irregular in plan than the accepted range for a ringfort. An Early Medieval date is generally likely for this site type, though not a certainty.

The Early Medieval period is characterised by the foundation of a large number of ecclesiastical sites throughout Ireland in the centuries following the introduction of Christianity in the 5<sup>th</sup> century AD. The early churches tended to be constructed of wood or post-and-wattle, although between the late 8<sup>th</sup> and 10<sup>th</sup> centuries



mortared stone churches gradually replaced the earlier structures. Many of the sites, some of which were monastic foundations, were probably originally defined by an enclosing wall or bank similar to that found at coeval secular sites. This enclosing feature was possibly built more to define the sacred character of the area of the church than as a defence against aggression. An inner and outer enclosure can be seen at some of the more important sites; the inner enclosure surrounding the sacred area of church and burial ground and the outer enclosure providing a boundary around living quarters and craft areas. Where remains of an enclosure survive it is often the only evidence that the site was an early Christian foundation.

The commencement of Viking raids at the end of the 8<sup>th</sup> century and their subsequent settlement during the following two centuries marked the first ever foreign invasion of Ireland. Viking settlement evidence is scarce and has been found in Cork, Dublin and Waterford, however excavations there have revealed extensive remains of the Viking towns. Outside these towns, understanding of Viking settlement is largely drawn from documentary and place-name evidence. In addition to Cork, Dublin and Waterford, documentary sources provide evidence for the Viking foundation of the coastal towns of Limerick and Wexford (Edwards 2006, 179). Other indirect evidence which suggest Viking settlement, or at least a Norse influence in Ireland, is represented by upwards of 120 Viking-age coin hoards, possible votive offerings of Viking style objects and the assimilation of Scandinavian art styles into Irish designs. While the initial Viking raids would have been traumatic, the wealth and urban expansion brought into the country as a result of Viking trading would have been significant.

The arrival of Anglo-Normans in Ireland towards the end of the 12<sup>th</sup> century resulted in great changes during the following century. Large numbers of colonists arrived from England and Wales and established towns and villages. They brought with them new methods of agriculture which facilitated an intensification of production. Surplus foods were exported to markets all along Atlantic Europe which created great wealth and economic growth. Results of this wealth can be seen in the landscape in the form of stone castles, churches and monasteries.

The political structure of Anglo-Normans centred around the establishment of shires, manors, castles, villages and churches. In the initial decades after the Anglo-Norman invasion a distinctive type of earth and timber fortification was constructed-the motte and bailey. Mottes were raised mounds of earth topped with a wooden or stone tower, while the bailey was an enclosure surrounded by an earthen ditch with a timber palisade used to house ancillary structures, horses and livestock. There are three motte and baileys recorded in County Monaghan (www.archaeology.ie).

In certain areas of Ireland however Anglo-Norman settlers constructed square or rectangular enclosures, now termed moated sites. Their main defensive feature was a wide, often water-filled, fosse with an internal bank. As in the case of ringforts, these enclosures protected a house and outbuildings usually built of wood. They appear to have been constructed in the latter part of the 13<sup>th</sup> century though little precise information is available. There is one moated site recorded in County Monaghan (www.archaeology.ie).

More substantial stone castles followed the motte and bailey and moated sites in the 13<sup>th</sup> and 14<sup>th</sup> centuries. Tower houses are regarded as a late type of castle and



were erected from the 14<sup>th</sup> to early 17<sup>th</sup> centuries. Their primary function was defensive, with narrow windows and a tower often surrounded by a high stone wall (bawn). An Act of Parliament of 1429 gave a subsidy of £10 to "*liege*" men to build castles of a minimum size of 20ft in length, 16ft in breadth and 40ft in height (6m x 5m x 12m). By 1449 so many of these £10 castles had been built that a limit had to be placed on the number of grants being made available. The later tower houses were often smaller, with less bulky walls and no vaulting. There are no tower houses recorded in County Monaghan (www.archaeology.ie).

The 14<sup>th</sup> century throughout north west Europe is generally regarded as having been a time of crisis, and Ireland was no exception. Although the Irish economy had been growing in the late 13<sup>th</sup> century, it was not growing quickly enough to support the rapidly expanding population, especially when Edward I was using the trade of Irish goods to finance his campaigns in Scotland and Wales. When the Great European Famine of 1315-1317 arrived in Ireland, brought about by lengthy periods of severe weather and climate change, its effects were exacerbated by the Bruce Invasion of 1315-1318. Manorial records which date to the early 14<sup>th</sup> century show that there was a noticeable decline in agricultural production. This economic instability and decline was further worsened with the onset of the Bubonic Plague in 1348.

Before the Tudors came to the throne the kings of England were also the kings of western France and so, during the 14<sup>th</sup> and 15<sup>th</sup> centuries, the various lords who ruled in Ireland were largely left to themselves. The Tudors however took more of an interest in the affairs of Ireland, and they wanted to put a stop to the raids of the Gaelic Irish on areas under English rule. To do this, they ruthlessly put down any rebellions and even quashed inter-tribal feuds. English settlers were then brought in to settle their lands. The first of these plantations occurred in the mid-16<sup>th</sup> century in what is now Laois and Offaly. After the Desmond rising in Munster in 1585 came another plantation, and parts of south western Tipperary were planted at that time.

From 1593 until 1603 there was a countrywide war between the Gaelic Irish, who were supported by the French, and the Elizabethan English. The Irish were finally defeated and with the "*Flight of the Earls*" from Rathmullan, County Donegal in 1607, Ulster, which had previously been independent of English rule, was planted.

Expansion in the agricultural sector following a period of economic growth in Ireland from the mid-1730s led to rising prices and increase in trade. This increase in agricultural productivity lead to growth in related industrial development throughout the country.

The proposed development would be located in Cornawall and Drumanan townlands, which are in the barony of Dartree and parish of Aghabog. Lewis (1837, Vol. I, 12) records the parish of Aghabog as containing 7,442 inhabitants. He notes that:-

"It comprises, according to the Ordnance survey, 11,543½ statute acres, of which 222½ are covered with water, and 10,484 are arable and pasture land, applotted under the tithe act; there are also from 16 to 20 acres of woodland, and about 243 of bog. The soil is a rich but shallow loam on a deep, stiff, and retentive clay, which renders it wet unless drained and manured with lime and marl, but it produces naturally an abundant herbage: the inhabitants are nearly all engaged in the linen manufacture" (ibid.).



## 10.4.2 Site-Specific Archaeological Background

There are seven Recorded Monuments within 1km of the proposed development, each of which is described below.

#### 10.4.2.1 RMP MO017-056: enclosure

RMP MO017-056 is located in Drumgramph townland, approximately 600m west of the proposed development site. It is depicted as an embanked rectangular enclosure on Ordnance Survey 6-inch maps. It is a rectangular grass-covered area (41m east/west x 40m north/south) defined by an overgrown earthen bank (c. 3m wide; internal height c. 0.5m; external height c. 1.8m), an outer ditch and outer bank at north, and scarps with hedges and outer drains. There is a ramp entrance (width of top 3.2m) at the eastern end, and another entrance gap (width of base 2m) at the west. The on-line National Monuments Service database (www.archaeology.ie) notes that this site may in fact be "a small field".

## 10.4.2.2 RMP MO017-061: ringfort

RMP MO017-061 is located approximately 1km south west of the proposed development site in Creeran townland. It is depicted as a fragment of an earthen bank on the First Edition (1835) Ordnance Survey 6-inch map, and an arc of hachures on later edition Ordnance Survey mapping. The perimeter survives from east to south west as an outer scarp and hedge, with an outer fosse from south east to south.

## 10.4.2.3 RMP MO017-062: ringfort

RMP MO017-062 is located in Lislea townland, approximately 380m south west of the proposed development site. It is a circular overgrown area (diameter measuring c. 35m - 40m), defined by an earthen bank which is separated by a fosse from an outer bank and an outer fosse. Both fosses and the outer bank have been removed from south to west, and a lane occupies the outer fosse from north to south east. The entrance through the inner and outer banks and a causeway are located at the north east.

#### 10.4.2.4 RMP MO017-063: ringfort

RMP MO017-063 is located approximately 220m south of the proposed development site in Drumilkin townland. It is a circular grass-covered area (diameter 37m north east/south west x 36m north west/south east) defined by an earthen bank and an external fosse which survive from south to west to north east. The original entrance is located at the south east.

#### 10.4.2.5 RMP MO017-064: ringfort

RMP MO017-064 is located approximately 410m south east of the proposed development site in Rossnaglogh West townland. It is an embanked circular enclosure with an external diameter of approximately 50m and is recorded on the First Edition 1:10,560 Ordnance Survey map (1835). Traces of a circular enclosure (diameter measuring c. 33m north west/south east) defined by a slight scarp are visible in pasture. It is truncated by a north west/south east field bank at the north east.

#### 10.4.2.6 RMP MO017-065: earthwork

RMP MO017-065 is located in Rossnaglogh West townland, approximately 530m east



of the proposed development. It is located on the summit of a hill with a slightly lower plateau extending off to the south west. According to local information collected in the 1940s there was reputed to have been a fort at this location, but there is no visible trace or any supporting evidence of one.

## 10.4.2.7 RMP MO017-069: enclosure

RMP MO017-069 is located on top of a drumlin in Drumanan townland, approximately 120m north of the proposed development site. A sub-rectangular earthwork (c. 50m north north east/south south west x c. 50m west north west/east south east) is depicted at this location on historic cartographic sources. A sub-circular enclosure is suggested by a curving field bank. The field bank is extant but no archaeological feature is visible at ground level, although it appears to be recorded on aerial photography (www.bing.com/maps).





#### 10.4.3 Cartographic Analysis

#### 10.4.3.1 Ordnance Survey Map First Edition 1:10,560 1835 (Figure 10.4)

The proposed electricity substation will partially truncate a townland boundary, while the proposed spoil deposition area will be located immediately north of a townland boundary. Research suggests that:-

"hoards and single finds of Bronze Age weapons, shields, horns, cauldrons and gold personal objects can all be shown to occur on boundaries" (Kelly 2006, 28).



The local road (LT62013), which the underground electricity line would be located immediately south of, is recorded on the First Edition map. A small north/south oriented vernacular structure in a slightly enclosed setting is recorded east of the substation and outside the footprint of the proposed development. This structure is not recorded on later editions of historic cartographic sources, and no longer survives above-ground. Ten small vernacular structures are recorded north west of the proposed electricity substation, immediately south of the local road (LT62013). The majority of these structures are recorded on later editions of historic cartographic sources. Four of these structures appear to survive above-ground, although all are located outside the footprint of the proposed development.

Three small vernacular structures are shown north of the road which the underground electricity line would be located to the south of. These structures are not recorded on later editions of historic cartographic sources and no longer survive above-ground. A small north east/south west oriented vernacular structure is recorded a short distance south west of the underground electricity line at the southern end of the proposed development site. This structure is recorded on later editions of the Ordnance Survey maps and still survives above-ground. It is fully located outside the proposed development site. A north west/south east oriented vernacular structure is recorded immediately outside the route of the underground electricity line in the south east corner of the proposed development site. Again, this structure is not recorded on later editions of historic cartographic sources, and no longer survives above-ground.

There are no archaeological, architectural or cultural heritage features recorded on the First Edition 1:10,560 map within the proposed development site.



Drumlins Park Wind Farm Substation & Grid Connection



Figure 10.4: Extract from First Edition 1:10,560 map (1835), showing the proposed development site

## 10.4.3.2 Ordnance Survey Map First Edition 1:2,500 (1907) (Figure 10.5)

The First Edition 1:2,500 map records a much more enclosed landscape in the vicinity of the proposed development site than was shown on the First Edition 1:10,560 map.

There are no archaeological, architectural or cultural heritage features recorded on the First Edition 1:2,500 map within the proposed development site.



Drumlins Park Wind Farm Substation & Grid Connection



Figure 10.5: Extract from First Edition 1:2,500 map (1907), showing the proposed development site

#### 10.4.3.3 Ordnance Survey Map Third Edition 1:10,560 1909-1910 (Figure 10.6)

There are no differences recorded within the proposed development site between Third Edition 1:10,560 map and the First Edition 1:2,500 map.

There are no archaeological, architectural or cultural heritage features recorded on the Third Edition 1:10,560 map within the proposed development site.





Figure 10.6: Extract from Third Edition 1:10,560 map (1909-1910), showing the proposed development site

## 10.4.4 Aerial Photographs

Aerial photographs held by Ordnance Survey Ireland (<u>map.geohive.ie</u>) and Bing aerial photography (<u>www.bing.com/maps</u>) were consulted to examine for the presence of archaeological and architectural remains within the land take of the proposed development.

Aerial photography records a similar landscape to that which was noted during the walkover survey; with the proposed electricity substation, spoil deposition area and underground electricity line located in small-to-medium sized agricultural fields with mature field boundaries.

There was no evidence of any archaeological or architectural features recorded on aerial photography within the site of the proposed development.

#### 10.4.5 Topographical Files of the National Museum of Ireland

Information on artefact finds and excavations from County Monaghan is recorded by the National Museum of Ireland. Location information relating to such finds is important in establishing prehistoric and historic activity in the study area.

There are no entries recorded in the Topographical Files for Cornawall or Drumanan townlands.



#### 10.4.6 Previous Archaeological Fieldwork

Reference to Summary Accounts of Archaeological Excavations in Ireland (<u>www.excavations.ie</u>) confirmed that no fieldwork programmes have been carried out in Cornawall or Drumanan townlands.

The excavation, in 2001, (Licence Number 01E0073) of a 50m long x 2m wide test trench in Lislea townland, approximately 680m south west of the proposed development, failed to reveal any archaeological features or artefacts.

No additional fieldwork programmes are recorded as having been carried out in the vicinity of the proposed development site.

#### 10.4.7 Toponyms

Townland names are an important source in understanding the archaeology, geology, land-use, ownership and cultural heritage of an area. The proposed development is located within the following townlands:

Name	lrish	Translation
Cornawall	Corr na bhFál	Translates as Round hill of the hedges
Drumanan	Droim Meannán	Possibly translates as Ridge of the kids

#### Table 10.2: Toponyms

#### 10.4.8 National Monuments

The Department of Culture, Heritage and the Gaeltacht maintains a database on a county basis of National Monuments in State Care: Ownership and Guardianship. The term National Monument is defined in Section 2 of the National Monuments Act (1930) as:-

"a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto" (www.archaeology.ie).

There are no National Monuments in State Care within the proposed development site, the 1km study area or the 3km study area.

The Department of Culture, Heritage and the Gaeltacht also maintains a database on a county basis of National Monuments with Preservation Orders or Temporary Preservation Orders.

There are no National Monuments with Preservation Orders or Temporary Preservation Orders within the proposed development site, the 1km study area or the 3km study area.

There are no World Heritage Sites or sites included in the Tentative List as being under consideration for nomination to the World Heritage List within the proposed development site, the 1km study area or the 3km study area.

10.4.9 County Development Plan

10.4.9.1 Archaeological Heritage

Monaghan County Development Plan 2019 - 2025



It is the Policy (PMP 1) of Monaghan County Council (Monaghan County Development Plan 2019, 134) to:-

"protect the Record of Monuments and Places listed in Appendix 5 (and any subsequent additions by the National Monuments Service) to ensure that the setting of the recorded monument or site is not materially injured and to cooperate with all recommendations of Statutory bodies in the achievement of this objective".

It is also the Policy (PMP 2) of Monaghan County Council (ibid., 135) to:-

"ensure that any development adjacent to an archaeological monument or site shall not be detrimental to the character of the archaeological site or its setting and shall be sited in a manner which minimises the impact on the monument and its setting. Development which is likely to detract from the setting of such a monument or site shall be resisted".

The Monaghan County Development Plan (2019–2025) does not contain any designated lists or sites of archaeological importance or significance.

10.4.9.2 Architectural Heritage

#### Monaghan County Development Plan 2019 - 2025

It is the Policy (BHP 1) of Monaghan County Council (ibid, 130) to:-

"protect and conserve all structures included in the Record of Protected Structures and to encourage the sympathetic re-use and long-term viability of such structures without detracting from their special interest and character".

It is also the Policy (BHP 6) of Monaghan County Council (ibid., 130 - 131) to:-

"ensure that any new development proposed to or in the vicinity of a Protected Structure will complement and be sympathetic to the structure and its setting in terms of its design, scale, height, massing and use of materials and to resist any development which is likely to impact on the building's special interest and/or any views of such buildings and their setting".

There are no Protected Structures within the proposed development site or the 1km study area.

RPS No.	Description	Townland	Distance from proposed development site
41401716	Annaghmakerig House	Mullaghmore	c. 2.3km north east
41402203	Cortober Church of Ireland	Cortober	c. 2.5km south
41402204	Minore House	Cortober	c. 2.5km south
41402205	Drum Presbyterian Church	Cortober	c.2.2 km south
Local 80	Anderson's public house	Drum	c. 2.2km south

There are five Protected Structures within the 3km study area:-

#### Table 10.3: Protected Structures within the 3km Study Area



There are no Architectural Conservation Areas or Proposed Architectural Conservation Areas recorded in the Monaghan County Development Plan 2019-2025 within the proposed development site, the 1km study area or the 3km study area.

## 10.4.10 National Inventory of Architectural Heritage

#### 10.4.10.1 Building Survey

The National Inventory of Archaeological Heritage (NIAH) maintains a non-statutory register of buildings, structures *etc.* recorded on a county basis (www.buildingsofireland.ie).

There are no structures recorded on the NIAH within the proposed development site.

There are three structures recorded on the NIAH within the 1km study area:

NIAH Reg. No.	Description	Townland	Distance from proposed development site
41401727	Cornawall School (Orange Hall)	Cornawall	c. 210m north
41401728	Madam's Bridge	Corrachulter/Rossnaglogh West	c. 530m north east
41401729	Corrachulter Bridge	Corrachulter/Doohat	c. 950m north east

#### Table 10.4: NIAH structures within the 1km Study Area

#### 10.4.10.2 Historic Gardens and Designed Landscapes

There are no historic gardens or designed landscapes recorded on the NIAH within the proposed development site.

#### 10.4.11 Site Visit

Field inspection is necessary to determine the extent, character and condition of archaeological, architectural and cultural heritage features, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information.

A site visit took place on 13 September 2019 and areas of land take associated with the proposed development were walked and visually assessed. Detailed walkover surveys of the Drumlins Park Wind Farm site were carried out 11 October 2018 and 13 September 2019 as part of the cultural heritage impact assessment and EIAR prepared in respect of that development.

The proposed electricity substation is located within undulating small to mediumsized enclosed fields, and reeds and tall grass were noted at the southern and western ends. The underground electricity line will proceed immediately south of the LT62013 local road in medium-sized undulating fields, before extending into a medium to large field to the point of connection with the existing 110kV overhead line. The spoil deposition area is located at the southern end of an undulating medium-sized enclosed field.

No archaeological, architectural or cultural heritage features were revealed within the footprint of the proposed development as a result of carrying out the walkover





survey.

Plate 10.1: Location of substation, looking south

#### 10.5 Description of Likely Effects

All elements of the proposed development are assessed as having the potential to affect or impact upon archaeological, architectural or cultural heritage features either during the construction phase through excavations, or through visual effects during the operational phase.

Construction phase effects may arise as a result of the construction of the proposed substation, spoil deposition area, underground electricity line and associated activities; each of which will involve the mechanical excavation of all topsoil and overburden down to and through geologically deposited strata at their identified locations. Operational phase effects may arise as a result of the visual effects resulting from the presence of the proposed electricity substation and end masts in the landscape.

As a result of carrying out this assessment, the following likely archaeological, architectural and cultural heritage direct, indirect, construction, operational, cumulative, residual and transboundary effects have been assessed. The following sections undertake an assessment of all elements of the development described in **Chapter 3**.

- 10.5.1 Construction Phase
- 10.5.1.1 Archaeological Resource



There are no Recorded Monuments or any additional statutorily protected archaeological features within the footprint of the proposed development. As such, it is assessed that there will be no direct construction phase effect on the recorded archaeological resource.

It is assessed that there will be a likely permanent, direct and imperceptible construction phase effect on any previously unrecorded archaeological remains that may exist within the development area and which may be discovered during the construction phase.

There are seven Recorded Monuments within 1km of the proposed development. The closest Recorded Monument (RMP MO017-069) is located approximately 120m north of the proposed development site. It is assessed that there will be no direct construction phase effect on these Recorded Monuments.

It is assessed, given the temporary duration of the construction phase and the existing landscaping in the vicinity of the proposed development site, that there will be an imperceptible construction phase visual effect on these seven Recorded Monuments.

Similarly it is assessed, given the temporary duration of the construction phase and the existing landscaping in the vicinity of the proposed development site, that there will be an imperceptible construction phase noise effect on these seven Recorded Monuments.

Following completion of the construction phase, these imperceptible effects will be reversed.

There are no additional recorded archaeological features proximate to the proposed development such that adverse visual or noise effects could be experienced during the construction phase. It is concluded, therefore, that the construction phase of the proposed development will not result in a likely significant direct or indirect construction phase effects on the archaeological resource.

#### 10.5.1.2 Architectural Resource

There are no protected architectural features within the footprint of the proposed development. As such, it is assessed that there will be no direct construction phase effect on the protected architectural resource.

There are three structures recorded on the NIAH within 1km of the proposed development. The closest NIAH site (41401727) is located approximately 210m north of the proposed development site. It is assessed that there will be no direct construction phase effect on these NIAH structures.

It is assessed, given the temporary duration of the construction phase and the existing landscaping in the vicinity of the proposed development site, that there will be an imperceptible construction phase visual effect on these three NIAH structures.

Similarly it is assessed, given the temporary duration of the construction phase and the existing landscaping in the vicinity of the proposed development site, that there will be an imperceptible construction phase noise effect on these three NIAH structures.

Following completion of the construction phase, these imperceptible effects will be reversed.



There are no additional architectural features proximate to the proposed development such that adverse visual or noise effects could be experienced during the construction phase. It is concluded, therefore, that the construction phase of the proposed development will not result in a likely significant direct or indirect construction phase effects on the architectural resource.

## 10.5.1.3 Cultural Heritage Resource

There are no protected cultural heritage features within the footprint of the proposed development. Similarly, there are no protected cultural heritage features proximate to the proposed development such that adverse visual or noise effects could be experienced during the construction phase. It is concluded, therefore, that the construction phase of the proposed development will not result in a likely significant direct or indirect construction phase effects on the cultural heritage resource.

#### 10.5.2 Operational Phase

#### 10.5.2.1 Archaeological Resource

There are seven Recorded Monuments within 1km of the proposed development. The closest Recorded Monument (RMP MO017-069) is located approximately 120m north of the proposed development site. It is assessed that there will be a likely longterm, imperceptible to not significant operational phase visual effect on these seven Recorded Monuments.

It is assessed, given the low levels of noise predicted to be generated by the proposed development during its operational phase (see **Chapter 11**), that there will be no operational phase noise effect on the archaeological resource.

There are no National Monuments in State Care, National Monuments with Preservation Orders or Temporary Preservation Orders, World Heritage Sites or sites included in the Tentative List as being under consideration for nomination to the World Heritage List within the proposed development site, the 1km study area or the 3km study area.

Therefore, it is assessed that the proposed development will not result in a likely significant operational phase effect on the archaeological resource.

#### 10.5.2.2 Architectural Resource

There are no Protected Structures within the proposed development site or within 1km of the proposed development. There are five Protected Structures within 3km of the proposed development, the closest of which (41402205 and Local 80) are located approximately 2.2km south of the proposed development site. It is assessed that there will be a likely long-term, imperceptible operational phase visual effect on these five Protected Structures.

There are three structures recorded on the NIAH within 1km of the proposed development, the closest of which (41401727) is located approximately 210m north of the proposed development site. It is assessed that there will be a likely long-term, imperceptible to not significant operational phase visual effect on these three NIAH structures. It is noted, in particular, that ground levels rise noticeably between the proposed electricity substation and the closest NIAH structure (41401727) which will limit views of this element of the proposed development. Partial views of the proposed end masts will be available; however, the presence of existing buildings



and mature vegetation will obscure any clear views of the proposed masts.

It is assessed, given the low levels of noise predicted to be generated by the proposed development during its operational phase (see **Chapter 11**), that there will be no operational phase noise effect on the architectural resource.

There are no Architectural Conservation Areas or any additional statutorily protected architectural features within the proposed development site, the 1km study area or the 3km study area.

Therefore, it is assessed that the proposed development will not result in a likely significant operational phase effect on the architectural resource.

#### 10.5.2.3 Cultural Heritage Resource

There are no protected cultural heritage features within the footprint of the proposed development or the 1km study area. As such, it is assessed that there will be no likely significant direct or indirect operational phase effect on the cultural heritage resource.

#### 10.5.3 Decommissioning Phase

As set out at **Chapter 3** (Sections 3.2 and 3.8), the proposed development will form part of the national electricity network and decommissioning of the substation is not proposed. Therefore, decommissioning phase effects will not occur.

#### 10.5.4 Cumulative Effects

Cumulative effects are defined as:-

"The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects" (Environmental Protection Agency 2017, 52).

#### 10.5.4.1 Drumlins Park Wind Farm

An Archaeological, Architectural and Cultural Heritage impact assessment was carried out by the writer in 2019 for the permitted Drumlins Park Wind Farm (see **Chapter 10**, **Volume III**). As part of the current report, a re-evaluation of the built heritage environment surrounding the permitted Drumlins Park Wind Farm site has been undertaken to ascertain if any new monuments or structures have been discovered or given additional protection in the intervening period or if there have been any changes to national, regional or local policies regarding the protection of designated monuments or structures.

The 2019 Archaeological, Architectural and Cultural Heritage impact assessment noted there were no recorded archaeological, architectural or cultural heritage features within the land take of the then-proposed Drumlins Park Wind Farm. The assessment found that:-

- There were no Recorded Monuments, Protected Structures, Architectural Conservation Areas, NIAH structures or any additional statutorily protected archaeological, architectural or cultural heritage features within the proposed wind farm;
- There were nine Recorded Monuments within 1km of the proposed wind farm, three of which were within 100m of the wind farm (around each turbine);
- There were 42 Protected Structures recorded in Clones. There were an



additional 41 Protected Structures within 5km of the proposed wind farm;

- There were three Architectural Conservation Areas in Clones;
- There was one structure recorded on the NIAH within 1km of the proposed wind farm;
- Reference to Summary Accounts of Archaeological Excavations in Ireland revealed that no fieldwork programmes had been carried out within the proposed wind farm;
- There were no entries recorded in the Topographical Files of the National Museum of Ireland within the land take of the proposed wind farm;
- Reference to cartographic sources failed to identify any unrecorded archaeological features within the development site;
- No archaeological, architectural or cultural heritage features were identified through aerial photography; and
- No archaeological, architectural or cultural heritage features were revealed within any areas of land take as a result of carrying out the walkover surveys.

There are no newly designated RMP sites, National Monuments, sites with Preservation Orders or Temporary Preservation Orders, World Heritage Sites, sites included in the Tentative List as consideration for nomination to the World Heritage List, Protected Structures, Architectural Conservation Areas, Proposed Architectural Conservation Areas or NIAH sites within the permitted Drumlins Park Wind Farm site or within the 1km study area since the time of preparing the Drumlins Park Wind Farm EIAR.

Similarly, in the intervening period, there have been no finds added to the Topographical Files of the National Museum of Ireland, nor have there been any fieldwork exercises carried out in any townlands within which the permitted Drumlins Park Wind Farm is located. An evaluation of the most recently available aerial photography (www.bing.com/maps) failed to reveal any previously unidentified archaeological or architectural features within the permitted Drumlins Park Wind Farm site.

A walkover survey of the permitted Drumlins Park Wind Farm site was carried out on 13<sup>th</sup> September 2019 to assess any likely cumulative effects between the proposed development; which, at that time, was one of 3 no. grid connection options assessed as part of the Drumlins Park Wind Farm; and the permitted wind farm, as well as to look for the presence of any previously unrecorded built heritage features. The site walkover confirmed the findings of the review of aerial photography insofar as no additional archaeological, architectural or cultural heritage features were noted within the area of land take associated with the Drumlins Park Wind Farm.

#### 10.5.4.2 Other Existing, Permitted and Proposed Developments

The proposed development will be located in close proximity to a number of existing, permitted and proposed developments including poultry units, agricultural developments and residential dwellings. While construction of the above-mentioned developments will involve excavations, the fact that effects from the proposed developments are unlikely to be experienced beyond their individual site boundary results in a limited likelihood of cumulative effects. The construction of these developments and associated excavations may result in an imperceptible direct effect on previously unrecorded archaeological or culturally significant features, however, it is considered that the likelihood of cumulative effects is low.



## 10.5.4.3 Conclusion

As discussed above, there have been no changes to the existing environment at the Drumlins Park Wind Farm site since the preparation of the EIAR (**Chapter 10**, **Volume III**). Similarly, there have been no substantive changes to national, regional or local policy relating to the protection or management of archaeological, architectural or culturally significant features. Therefore, it is concluded that the findings and conclusions of the Drumlins Park Wind Farm EIAR remain valid and fully applicable.

Given that the EIAR and Monaghan County Council, in deciding to grant planning permission, concluded that the permitted wind farm would not result in any likely significant effects on the historical built environment, the fact that there have been no changes to the existing environment or policy context, and that effects resulting from the proposed development are unlikely to be significant; it follows that cumulative effects between the Drumlins Park Wind Farm, the proposed development, and other existing, permitted and proposed developments are unlikely to occur. In the event that any effects do arise, they are highly unlikely to be significant.

#### 10.5.5 Transboundary Effects

Given the proximity of the proposed development site to the boundary with Northern Ireland, this assessment has also undertaken an appraisal of the likelihood for effects on the archaeological, architectural and cultural heritage resource in Northern Ireland.

**Chapter 9** (Landscape) assesses that due to the separation distances, the topography of the surrounding landscape and the presence of mature vegetation surrounding the proposed development, there is no likelihood of transboundary visual effects on any receptor located within Northern Ireland.

Therefore, and given the conclusion of the cumulative assessment undertaken above, it is assessed that there will be no likely significant individual or incombination operational phase visual effect on the archaeological, architectural or cultural heritage resource in Northern Ireland.

#### 10.5.6 Do Nothing Effects

If the proposed development were not to proceed, there would be no likely effect on the archaeological, architectural or cultural heritage resource.

#### 10.5.7 Interactive Effects

The excavation of soil during the construction of the proposed development may result in the discovery of previously unrecorded archaeological features; and, therefore, it is considered that there is a likelihood for interaction between land and soil and archaeological heritage. However, on the basis of this assessment, it is concluded that the level of interaction is not likely to be significant.

During the operational phase, it is assessed that the proposed development will likely result in imperceptible to not significant effects on seven Recorded Monuments and three NIAH structures and an imperceptible effect on five Protected Structures; and therefore will result in an interaction between built heritage and landscape. However, this assessment concludes that the level of interaction is not likely to be significant.

#### 10.5.8 Risk of Accidents



It is assessed that there will be no likely effects on the archaeological, architectural or cultural heritage resource as a result of any unplanned accidents which may occur during either the construction or operational phases.

## 10.5.9 Worst Case Effects

It is assessed that, under a "worst-case" scenario, and in the absence of mitigation, there would be a likely permanent and direct construction phase effect on any previously unrecorded archaeological remains that may exist within the proposed development site.

#### 10.6 Mitigation and Monitoring Measures

#### 10.6.1 Mitigation Measures

Archaeological monitoring of all excavations associated with the construction of the proposed development shall be carried out. Monitoring will be carried out under licence to the Department of Culture, Heritage and the Gaeltacht and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.

#### 10.6.2 Monitoring Measures

With the exception of the mitigation measures recommended in **Section 10.6.1** which will be implemented during the construction phase, there are no future monitoring requirements.

#### 10.7 Residual Effects

Following implementation of the above-mentioned mitigation measure during construction, it is concluded that there will be no likely residual effects during the construction or decommissioning phases of the proposed development. Residual effects during the operational phase are addressed below.

#### 10.7.1 Archaeological Resource

There are seven Recorded Monuments within 1km of the proposed development. The closest Recorded Monument (RMP MO017-069) is located approximately 120m north of the proposed development site. It is assessed that there will be a likely residual, long-term, imperceptible to not significant operational phase visual effect on these seven Recorded Monuments.

#### 10.7.2 Architectural Resource

There are five Protected Structures within 3km of the proposed development, the closest of which (41402205 and Local 80) are located approximately 2.2km south of the proposed development site. It is assessed that there will be a likely residual, long-term, imperceptible operational phase visual effect on these five Protected Structures.

There are three structures recorded on the NIAH within 1km of the proposed development, the closest of which (41401727) is located approximately 210m north of the proposed development site. It is assessed that there will be a likely residual, long-term, imperceptible to not significant operational phase visual effect on these three NIAH structures.

#### 10.8 Summary



The results of this assessment, in relation to construction, operation, and cumulative effects have been set out in the foregoing sections. This assessment has concluded that the effect on the archaeological, architectural and cultural heritage resource of the proposed development (substation, spoil deposition area, underground electricity line, end masts and associated activities) will in general be long-term and imperceptible to not-significant.

There will be no likely significant direct or indirect construction or operational phase effect on the recorded archaeological, architectural and cultural heritage resource. However, there will be a likely long-term, imperceptible to not significant visual effect on seven Recorded Monuments located within the 1km study area. In addition, there will be a likely long-term, imperceptible visual effect on five Protected Structures located within the 3km study area and a likely long-term, imperceptible to not significant visual effect on three NIAH structures located within the 1km study area.

Following the implementation of the mitigation measure outlined in this chapter, the likely residual effects of the proposed development remains imperceptible to not significant, including a likely residual, long-term, imperceptible to not significant visual effect on seven Recorded Monuments located within the 1km study area. In addition, there will be a likely residual, long-term, imperceptible visual effect on five Protected Structures located within the 3km study area and a likely residual, long-term imperceptible to not significant visual effect on three NIAH structures located within the 1km study area.

This assessment has further concluded that the proposed development will not result in any likely significant cumulative effects with other existing, permitted or proposed development, including those identified at **Chapter 1**.

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Ordnance Survey Ireland aerial photographs

www.monaghan.ie Monaghan County Council



