



Chapter 16

Cultural Heritage

Table of Contents

16.	CULTURAL HERITAGE	1
16.1	Introduction.....	1
16.2	Legislation, Policy and Guidance.....	1
16.2.1	Legislation.....	1
16.2.2	Policy	2
16.2.3	Guidance	2
16.2.4	Consultation Undertaken.....	2
16.3	Methodology.....	3
16.3.1	Study Area.....	3
16.3.2	Survey Methodology	3
16.3.3	Assessment Methodology	7
16.3.4	Difficulties Encountered	10
16.4	Receiving Environment.....	10
16.4.4	Recorded Monuments (AH sites) within the Study Area.....	15
16.4.5	Built Heritage Sites (Protected Structures and NIAH sites) within the Study Area 16	16
16.4.6	Architectural Conservation Areas (ACAs) within the Study Area	17
16.4.7	Designed Landscapes	17
16.4.8	Summary of Previous Archaeological Investigations within the Study Area..	17
16.4.9	Aerial Photographic Analysis and LIDAR Coverage.....	17
16.4.10	Topographical Files of the National Museum of Ireland.....	18
16.4.11	Clare Museum Collections	18
16.4.12	Results of Field Inspection	18
16.4.13	Cultural Heritage Receptors.....	19
16.4.14	Areas of Archaeological Potential (AAP)	24
16.4.15	Townland Boundaries	25
16.4.16	Analysis of the Placenames within the Study Area.....	26
16.5	Assessment of Potential Impacts.....	27
16.5.1	Introduction.....	27
16.5.2	Potential Construction Impacts.....	27
16.5.3	Potential Operational Impacts	30
16.6	Do-Nothing Impact.....	31
16.7	Mitigation Measures.....	31
16.7.1	Introduction.....	31
16.7.2	Construction Phase.....	31
16.7.3	Operation Phase.....	32
16.8	Monitoring.....	32

16.9	Residual Effects.....	33
16.9.1	Construction Phase.....	33
16.9.2	Operation Phase.....	33
16.10	References.....	33
16.10.1	Cartographic Sources.....	35
16.10.2	Electronic Sources.....	35

16. CULTURAL HERITAGE

16.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) considers and assesses the effects of the West Clare Railway Greenway Section 1 Kilrush to Kilkee Project (hereafter referred to as the 'proposed development') on cultural heritage. This chapter was compiled by Faith Bailey (BA (Hons), MA, MIAI, MCIFA) and Jacqui Anderson (BA, MA, MIAI) of IAC Archaeology.

This study determines, as far as reasonably possible from existing records, the nature of the cultural heritage resource in and within the study area of the proposed development using appropriate methods of study. Desk-based assessment is defined as a programme of study of the historic environment within a specified area or site that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely archaeology and cultural heritage constraints, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage constraints (Chartered Institute for Archaeologists (CIfA) 2014a). This desk-based assessment and analysis is essential in:

- Determining the presence of known cultural heritage receptors that may be affected by the proposed development;
- Assessment of the likelihood of finding previously unrecorded archaeological remains during the construction programme;
- Determining the likely significant impacts upon known or previously unrecorded cultural heritage receptors;
- Determining the likely significant impacts upon the setting of known or previously unrecorded cultural heritage sites within the study area of the proposed development; and
- Proposing mitigation measures based upon the results of the above research.

This desk-based research has been undertaken in tandem with site walkover surveys.

16.2 Legislation, Policy and Guidance

The assessment has been carried out in accordance with the Code of Practice that was agreed between TII and the Minister for Arts, Heritage, Gaeltacht and the Islands (now the Department of Housing, Local Government and Heritage, DoHLGH) and Environmental Protection Agency (EPA) Guidelines (2022 & 2017).

16.2.1 Legislation

The following legislation was consulted as part of the assessment:

- National Monuments Act 1930 to 2014
- Heritage Act 1995, as amended
- The Planning and Development Acts 2000 to 2024
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 2000
- Directive 2011/92/EU on the assessment of the effects of certain public private projects on the environment (as amended by Directive 2014/52/EU) (the "EIA Directive")

- European Convention on the Protection of the Archaeological Heritage (the 'Valletta Convention'), ratified by Ireland in 1997
- Council of Europe Convention for the Protection of the Architectural Heritage of Europe (Granada) 1985, ratified by Ireland in 1991

16.2.2 Policy

The following policies were consulted as part of the assessment:

- Frameworks and Principles for the Protection of the Archaeological Heritage ((formerly) Department of Arts, Heritage, Gaeltacht and Islands, 1999)
- Heritage Ireland 2030 - A Framework for Heritage
- National Policy on Architecture 2022

16.2.3 Guidance

- Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects, 2025
- Guidelines on the information to be contained in Environmental Impact Assessment Reports
- Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland

The National Monuments Act 1930, as amended by various acts including but not limited to: the National Monuments (Amendment) Act 1954, the National Monuments (Amendment) Act 1987, the National Monuments (Amendment) Act 1994 and the National Monuments (Amendment) Act 2004 (together the National Monuments Acts) make provision for the protection and preservation of national monuments, archaeological monuments and archaeological objects in Ireland. The description of the existing study area in this chapter takes account of those statutory designations and the chapter takes account of the legislative monitoring and licencing requirements as mitigation.

The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 (the 2023 Act) was enacted by the Oireachtas in late 2023 and aims to address a range of structural issues and simplify terminology present in the 1930 Act (and subsequent Amendments), and to provide a single accessible and comprehensive piece of legislation. At the date of writing (November 2025) many sections of the 2023 Act have yet to commence. It is not anticipated that this will result in statutory protection being extended to any potential receptors apart from those already considered in this chapter. In addition, the chapter already identifies as mitigation the various archaeological investigations and licencing requirements that will come into force when the 2023 Act is commenced. Accordingly, the EIAR conclusions are likely to be unchanged should the 2023 Act commence fully while the application is moving through the planning process.

16.2.4 Consultation Undertaken

Following the initial research, a number of statutory and voluntary non-statutory bodies were consulted to gain further insight into the cultural heritage background of the study area, as follows;

- DoHLGH – the Heritage Service, National Monuments and Historic Properties Section: Record of Monuments and Places (RMP); Sites and Monuments Record (SMR); Monuments in State Care Database; Preservation Orders; Register of Historic Monuments

- National Museum of Ireland (NMI), Irish Antiquities Division: Topographical files of Ireland
- Clare Museum, Ennis County Clare
- National Inventory of Architectural Heritage (NIAH): County Clare
- Clare County Council: Planning Section.

16.3 Methodology

16.3.1 Study Area

A study area of 250m from the edge of where interventions may be required as part of the proposed development has been utilised for the assessment of same. Measurements are made from the edge of the proposed development to the upstanding remains of the archaeological, architectural or cultural heritage receptor. If no remains are upstanding, the measurement is made to the centre of the site.

Each cultural heritage receptor has been assigned a unique identifying reference number, prefaced by letters identifying the site type, as follows:

- Archaeological Heritage (AH): Archaeological sites that are listed in the RMP or proposed for inclusion in the RMP.
- Built Heritage (BH): Structures listed in the RPS and/or NIAH.
- Cultural Heritage (CH): Any sites or structures that are of archaeological, architectural or cultural heritage merit that are not recorded in any existing inventories.
- Designed Landscape (DL): Designed or demesne landscapes established as part of the setting for a country house.
- Area of Archaeological Potential (AAP): Landscape containing enhanced archaeological potential due to the presence of particular topographic features, such as watercourses, bogland and/or coastal margins.
- Townland Boundary (TB): Land division boundary.

16.3.2 Survey Methodology

The following sources (documentary, cartographic and databases) were consulted in order to a) establish the nature of the baseline environment, b) compile a list of documented cultural heritage constraints within the study area of the proposed development and c) to identify any previously unrecorded constraints.

- United Nations Educational, Scientific and Cultural Organization (UNESCO): properties inscribed on the World Heritage List and those nominated for inclusion on the tentative list;
- Record of Monuments and Places (RMP) for County Clare;
- Sites and Monuments Record (SMR) for County Clare;
- Monuments in State Care;
- Monuments subject to Preservation Orders;
- National Inventory of Architectural Heritage;
- National Inventory of Intangible Cultural Heritage;
- Topographical files of the National Museum of Ireland (NMI);
- Cartographic and documentary sources relating to the study area;
- Clare County Development Plan (2023-2029);

- Clare County Heritage Plan (2024-2030);
- Aerial Photographs and LIDAR coverage;
- Place Name Analysis;
- Database of Irish Excavation Reports (Excavations Bulletin 1970- December 2025).

UNESCO World Heritage Properties

The function of a UNESCO World Heritage list is to encourage member states to protect and manage their natural and cultural heritage. Properties considered for inclusion have cultural, historical, scientific or other significance, considered to be of outstanding value to humanity. There are three properties inscribed onto the UNESCO World Heritage List on the island of Ireland the Giants Causeway Coast, Brú na Bóinne and Sceilig Mhichíl.

In 2019, in line with UNESCO policy a new call for nominations onto a revised Tentative List for nomination as a UNESCO World Heritage Site was issued by the Department of Housing, Local Government and Heritage (DoHLGH). Six nominations were deemed valid by an Expert Advisory Group, and a revised tentative list was submitted to UNESCO in early 2022. Three of the six nominations were accepted; the Royal Sites of Ireland (Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex, and Tara Complex), the Transatlantic Cable Ensemble Eastern Terminus on Valentia Island, County Kerry and the Passage Tomb Landscape of County Sligo.

Ireland has also inscribed four intangible heritage elements Uilleann Piping (2017), Hurling (2018), Irish Harping (2019) and the practice of drystone wall construction (2024) on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

Record of Monuments and Places (RMP)

Section 12 (1) of the National Monuments Act (1994 amendment) provides that the MHLGH shall establish and maintain a Record of Monuments and Places (RMPs) where it is known that such monuments exist. The record, forming the Archaeological Survey of Ireland, comprises a list of monuments and relevant places and mapping showing each monument and relevant place in respect of each County in the State. Monuments and Places recorded on the RMP all receive statutory protection under the National Monuments Act. All sites listed on the RMP are referred to as Archaeological Heritage (AH sites) within this assessment.

Sites and Monuments Record (SMR)

The Site and Monuments Record (SMR) holds documentary evidence and field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g. only a site type and townland are recorded. These are known to the National Monuments Section as 'un-located sites' and cannot be afforded legal protection due to lack of locational information. As a result, these are omitted from the RMP. SMR sites are listed on a website maintained by the Department of Housing, Local Government and Heritage (DoHLGH) – www.archaeology.ie. All Recorded Monuments are referred to as Archaeological Heritage (AH sites) within this assessment.

National Monuments in State Care Database

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

A National Monument receives statutory protection and is described as 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason

of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (National Monuments Act, 1930, Section 2).

The Minister for the DoHLGH may acquire National Monuments by agreement or by compulsory order. The State or Local Authority may assume guardianship of any National Monument (other than dwellings). The owners of National Monuments (other than dwellings) may also appoint the Minister or the Local Authority as guardian of that monument if the State or Local Authority agrees. Once the site is in ownership or guardianship of the State, it may not be interfered with without the written consent of the Minister. There are no National Monuments located within the footprint of the proposed development or its study area.

Preservation Orders List

Preservation Orders and/or Temporary Preservation Orders can be assigned to a site or sites that are deemed to be in danger of injury or destruction. Orders are allocated under the National Monuments Act, 1930. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the National Monuments Act, 1954. 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 (DoHLGH). There are no sites that possess Preservation Orders within the study area of the proposed development.

Register of Historic Monuments

The Register of Historic Monuments was established under Section 5 of the 1987 amendment to the 1930 National Monuments Act and requires the Minister to establish and maintain such a record. Historic monuments and archaeological areas included in the register are afforded statutory protection under the National Monuments Act 1987 amendment. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the RMP.

National Inventory of Architectural Heritage (NIAH)

The National Inventory of Architectural Heritage (NIAH) is a government initiative tasked with making a nationwide record of locally, regionally, nationally and internationally significant structures, which in turn provides county councils with a guide as to which structures should be listed within the Record of Protected Structures (RPS). The National Built Heritage Service (NBHS) have also carried out a nationwide desk-based survey of historic gardens, including demesnes that surround large houses. All NIAH structures are referred to as Built Heritage sites (BH) as part of this appraisal.

Whilst the NIAH Garden Survey was utilised as part of this assessment, this was carried out in conjunction with detailed analysis of the historic Ordnance Survey (OS) maps and field inspection, in order to identify any designed landscapes (DL) within the study area of the proposed development.

Topographical Files of the National Museum of Ireland

The 'Topographical Files' are the national archive of all known finds recorded by the National Museum of Ireland (NMI). This archive relates primarily to artefacts but also includes references to monuments and unique records of archaeological investigations/excavations undertaken. The find spots of artefacts are important sources of information on the discovery of sites of archaeological significance.

Cartographic Sources

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

All sites of potential archaeological or architectural heritage merit identified during the map analysis are listed as Cultural Heritage (CH) sites within this assessment. In addition, all Areas of Archaeological Potential identified during the analysis of mapping (and other sources including field inspection) are referred to as AAPs within this assessment.

The cartographic sources listed below were analysed to inform the baseline environment:

- William Petty The Down Survey Map of the Barony of Moyarta, 1659
- Taylor and Skinner - Road Maps of Ireland 1777
- Henry Peltam's *The County of Clare in the Province of Munster and the Kingdom of Ireland, surveyed and drawn by Order of the Grand Jury, 1787*
- A New and Exact Hydrographical Survey of the River Shannon from Limerick to the Sea, 1808
- Ordnance Survey (OS) Map Editions County Clare (1842, 1898)

Development Plans

Development Plans contain a catalogue of all the sites listed on the Record of Protected Structures (RPS), archaeological sites and Architectural Conservation Areas (ACA) within every county. The Clare County Development Plan (2023-2029) and the Clare County Heritage Plan (2024-2030) were consulted as part of this assessment. All protected structures are referred to as Built Heritage sites (BH) as part of this assessment.

Aerial Photographs and LIDAR coverage

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent. It also provides information on the terrain and its likely potential for archaeology. O S aerial photographs (1995, 1996, 2001, 2006, 2013), Google Earth coverage (2003–2025) and Bing Maps (2022) were examined for this assessment. In addition, publicly available LIDAR coverage of portions of the proposed development was examined as part of this assessment. All sites identified during cartographic or aerial photographic assessment are identified as Cultural Heritage (CH) sites within this assessment.

Documentary Sources

Documentary sources were consulted to gain background information on the Cultural Heritage of the study area of the proposed development. A full list of references are included in Section 16.10.

Placenames

Placenames are an important part in understanding both the archaeology and history of an area. Placenames can be used for generations and in some cases have been found to have their roots deep in the historical past. The main references used for the placename analysis is *Irish Local Names Explained* by P.W Joyce (1870) and the Placenames Database of Ireland (www.logainm.ie).

Excavations Bulletin

The Excavations Bulletin is a summary publication that has been produced in hard copy every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 and since 1987 has been edited by Isabel Bennett. This information is vital when examining the archaeological content of any area, which may not have been recorded under the SMR and RMP files. This information is also available online (www.excavations.ie) from 1970–2025.

Field Inspection

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

The Cultural Heritage field inspection was carried out on the 26th-28th of November 2025 and entailed:

- Recording the terrain type and land usage
- Recording the presence of known and previously unknown features of Cultural Heritage significance
- Verifying the extent and condition of recorded sites and structures
- Visually investigating any suspect landscape anomalies to assess the possibility of their being anthropogenic in origin and of Cultural Heritage significance

A number of areas of the proposed development were inaccessible at the time of the field inspection.

16.3.3 Assessment Methodology

The significance of potential effects has been evaluated using a systematic approach, based upon identification of the importance/value of receptors and their sensitivity to the Project activity, together with the predicted magnitude of the impact. This is in accordance with the approach laid out in the Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects (TII, 2025).

Developments can have a wide range of impacts on Cultural Heritage sites. These can be direct, indirect, positive and/or negative:

- Direct Impact – where a Cultural Heritage receptor or its setting is physically located within the footprint of a project, which would entail its removal in whole or in part. Direct impacts can also be defined as those that are directly attributable to the Project
- Indirect Impact – an impact that results indirectly from the Project, often occurring away from the development, or because of a sequence of interrelationships or a complex pathway
- Positive Impact – a change which enhances or improves the quality of the Cultural Heritage receptor
- Negative Impact – a change which reduces the quality of the Cultural Heritage receptor

16.3.3.1 Baseline Importance and Sensitivity

For each impact, the assessment identifies receptors sensitive to that impact and implements a systematic approach to understanding the impact pathways, magnitude and the level of effects on given receptors.

The definitions of receptor sensitivity for the purpose of the Cultural Heritage assessment are provided in Table 16-1. This is based on the presence (or not) of statutory protection and the determination by the author.

Table 16-1 Baseline Environment Criteria Rating

Baseline Rating (Importance)	Criteria
Very High	Receptors of International Importance: UNESCO World Heritage Properties (including tentative list) Any Cultural Heritage receptor of designated International Importance National Monuments Monuments subject to Preservation Orders
High	RMP Proposed RMP Record of Protected Structures (RPS) Architectural Conservation Area (ACA) UNESCO Cultural Heritage Receptors (associated tangible elements only) Well-preserved demesne landscapes Previously unrecorded archaeological receptors (identified during desktop analysis, field inspection or geophysical survey)
Medium	SMR Receptors listed on the NIAH (upstanding) AAPs identified through documentary or cartographic research. Sculptures/Memorials/Buildings not on NIAH/RPS (based on professional judgement) Tangible Cultural Heritage Moderately well-preserved demesne landscapes Townland boundaries - upstanding
Low	Lands where previous disturbance may have affected the potential archaeological resource Sculptures/Memorials/Buildings not on NIAH/RPS (based on professional judgement) Poorly preserved demesne landscapes Redundant records
Very Low	Sculptures/Memorials/Buildings not on NIAH/RPS (based on professional judgement) Townland boundaries – site of
Negligible	Landscape that that has been the subject of extensive archaeological investigations and/or extensive development SMR – Record only Proposed RMP – excavated NIAH – demolished Fully developed demesne landscapes

16.3.3.2 Magnitude of Impacts

The scale or magnitude of potential impacts (both positive and negative) depends on the degree and extent to which the development activities may change the environment, which

usually varies according to project phase (i.e. construction, operation and maintenance and decommissioning).

As per the TII 2025 Guidelines, the nature of impacts are categorised as follows:

- Type of impact/effect (direct, indirect)
- Quality of impact/effect (i.e. positive, negative, none)
- Extent and Context of impact/effect (e.g. size of the area/number of receptors affected; whether the extent, duration, or frequency will conform to or contrast with established (baseline) conditions)
- Probability of impact/effect (i.e. likelihood that the identified effects will occur)
- Duration of impact/effect (e.g. momentary, brief, temporary, short-term, medium-term, long-term, permanent, reversible, etc.)
- Frequency of impact/effect (i.e. will occur once, rarely, daily, monthly, constantly, etc.)

The criteria used to assess the different impacts associated with the Project are shown in Table 16-2. The criteria have been defined in consideration of the Guidelines on Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) and the Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects (TII, 2025).

Table 16-2 Impact Magnitude Assessment Criteria

Magnitude	Description
Very High	Major alteration to, or complete loss of, a Cultural Heritage Receptor. Effects likely to be experienced at a very large scale; considered permanent and irreversible
High	Notable or long-term change to a Cultural Heritage Receptor
Medium	Moderate or long-term change over a restricted area or a moderate change to a Cultural Heritage Receptor
Low	Minor, short- or medium-term change over a restricted area or a minor change to a Cultural Heritage Receptor
Negligible	Imperceptible change to a Cultural Heritage Receptor

16.3.3.3 Determining Significance of Effects

An Impact Assessment Matrix (IAM) is used to determine the significance of an effect. In basic terms, the potential significance of an effect is a function of the sensitivity of the receptor and the magnitude of the impact.

The matrix provides a framework for the consistent and transparent assessment of predicted effects although it is important to note that the assessments are based on the application of expert judgement. The assessment matrix is shown in Table 16-3, whereas the definition of the significance of effects is given below (TII 2025, 70).

Table 16-3 Impact assessment matrix for determination of significance of effect

Sensitivity of Receptor	Magnitude of Impact				
	Very High	High	Medium	Low	Negligible
Very High	Profound	Very Significant	Significant	Moderate	Slight
High	Very Significant	Significant	Significant - Moderate	Moderate - Slight	Not Significant
Medium	Significant	Significant - Moderate	Moderate	Slight	Imperceptible
Low	Moderate	Moderate - Slight	Slight	Not Significant	Imperceptible
Negligible	Slight	Not Significant	Imperceptible	Imperceptible	Imperceptible

16.3.3.4 Significance of Effect Definitions

- Profound: An effect which obliterates a Cultural Heritage Receptor of very high importance
- Very Significant: An effect which, by its character, magnitude, duration or intensity considerably alters most of an important aspect of the Cultural Heritage receptor
- Significant: An effect which, by its character, magnitude, duration or intensity alters an important aspect of the Cultural Heritage receptor
- Moderate: An effect that alters the character of the Cultural Heritage receptor in a manner that is consistent with existing and emerging baseline trends
- Slight: An effect which causes noticeable changes in the character of the Cultural Heritage receptor without affecting its importance
- Not significant: An effect which causes noticeable changes in the character of the Cultural Heritage receptor but without significant consequences
- Imperceptible: An effect capable of measurement but without significant consequences

16.3.4 Difficulties Encountered

A number of areas along the route of the proposed development were not made available for access during the field inspection, meaning that these areas could not be inspected on foot. Every effort has been made to utilise historic mapping and satellite imagery in order to assess these areas. The inaccessible areas included areas in the townlands of Lisdeen, Gabraun, Moyasta, Carrowncalla South and Leadmore West.

16.4 Receiving Environment

The route of the proposed development comprises parts of the former West Clare Railway from Kilkee to Kilrush, crossing twelve townlands in County Clare (Table 16-4). The surrounding landscape comprises undeveloped agricultural land between the towns of Kilkee and Kilrush.

Table 16-4 Townlands in the Study Area

Townland	Parish	Barony	County
Lismuse	Killard	Ibrickan	Clare
Baunmore	Kilfearagh	Moyarta	
Dough			
Lisdeen			
Termon West			
Garraun			
Moyasta			
Carrowncalla North	Kilrush		
Carrowncalla South			
Leadmore West			
Kilrush			
Cappagh			

16.4.1.1 Mesolithic Period (c. 8000–4000 BC)

The southwest of Ireland has shown evidence of possible human activity as early as the Upper Palaeolithic. A re-examination of the excavations carried out at Alice and Gwendoline Cave in Co. Clare, revealed a brown bear patella which displayed evidence of butchery and was dated to the late Upper Palaeolithic period (Dowd et al. 2021). However, as it is known that for long periods of the Palaeolithic the island was under intermittent glacier coverage, it is unlikely that permanent human settlement was established until the ice had receded in the Mesolithic period (Warren 2022).

The Mesolithic period is the earliest time for which there is widespread evidence of human occupation of the island as a whole. During this period, people subsisted on hunting, foraging and fishing with natural resources of key importance. Mesolithic groups would have been largely nomadic, migrating to exploit seasonal resources where available. The majority of Mesolithic sites have been identified in coastal locations or close to rivers and lakes. It has been suggested that fish comprised a larger portion of the Irish Mesolithic diet when compared to the Mesolithic diet of Continental Europe, given the absence in Ireland of some of the larger mammal species frequently hunted on the continent at this time (Woodman et. al 1997).

Both early and late Mesolithic sites have been identified in several areas in County Limerick south of the Shannon, and although some Mesolithic material has yet to be discovered on the estuary itself, it is postulated that the range of materials and resources available would have made this a very attractive place for early hunter gatherers, with the additional advantage that the river provided access deep into the Irish Midlands, potentially acting as a travel route.

16.4.1.2 Neolithic Period (c. 4000–2500 BC)

The earliest archaeological and paleoenvironmental sites are located along the Shannon estuary, to the south and west of the proposed development, including the Neolithic submerged forests in parts of Poullesharry Bay (O’ Sullivan 2001). Evidence of Neolithic activities in County Clare is shown by the presence of several megalithic monuments such as the court tombs and portal tombs recorded in the Burren. It is likely that Clare supported a relatively large population in a well-organised landscape. It is also possible at this stage in prehistory that the Upper Shannon estuary was composed of several broad shallow channels that flowed through large expanses of mudflats and saltmarshes, with a surrounding

landscape of reed swamp, fens and Carr woodland (alder and willow). Sea level rise and geomorphological change have led to the submergence of these landscapes under subsequent layers of estuarine silt and organic peat deposits.

According to O' Sullivan (2001, 64), the Poulnasharry Bay woodland would have been growing at the edge of a stream or river and would have been later covered by fens and raised bogs. Whilst it is important to remember that these areas would have been recognised as important places in the regional landscape, they could have had a range of importance apart from the economic including the organization of local territorial boundaries, routeways settlements and sacred landscapes.

16.4.1.3 Bronze Age (c. 2500–800 BC)

During the Bronze Age, settlement continued and intensified (Grogan and Condit, 2000). There is a range of evidence for late Bronze Age activity in the surrounding wetlands and drylands of the Shannon estuary. Finds include tools, weapons and gold artefacts. However, it is suggested that the political centre of this late Bronze Age territory was Mooghaun hillfort, a massive trivallate fortification in east Clare, c. 43km east of the proposed development.

Over 7,000 burnt mounds or *fulacht fia* sites have been recorded in the country and c. 1,500 examples excavated, making them the most common prehistoric monument in Ireland (Waddell 2022). Dating evidence from a growing number of burnt mounds, suggests activities resulting in burnt mounds were being carried over a span of 3,500 years in Ireland, the Bronze Age has long been believed to have seen the peak of this activity (Hawkes 2018). They are typically located in areas where there is a readily available water source, often in proximity to a river or stream or in places with a high-water table. In the field, burnt mounds may be identified as charcoal-rich mounds or spreads of heat shattered stones, however, in many cases, these sites have been disturbed by later agricultural activity and are no longer visible on the field surface. Nevertheless, even disturbed spreads of burnt mound material often preserve the underlying associated features, such as troughs, pits and gullies, intact. A *fulacht fia* is recorded c. 250m north of the proposed development in Leadmore West (AH24).

It is suggested that towards the close of the Bronze Age, cattle and sheep may have been driven down to the estuarine pastures during the summer months by the communities who usually resided in the enclosed/unenclosed settlements on the surrounding ridges and hills, utilising trackways to facilitate access (O' Sullivan 2001). There is substantial evidence for habitation and activity in the upper Shannon estuary and the Fergus estuary.

Although most of the Shannon region's metalwork has been recovered from lakes and bogs, it is noted that a number of objects have been recovered from estuarine locations, such as marshes. Lewis noted, in 1847, that a large portion of the area was occupied by bogs, particularly in the baronies of Moyarta and Ibrickan.

16.4.1.4 Iron Age (c. 800 BC–AD 500)

There is increasing evidence for Iron Age settlement and activity in recent years as a result of development-led excavations and increased academic research. Yet this period is often distinguishable from the rather rich remains of the preceding Bronze Age and subsequent early medieval period in the absence of datable materials. The Iron Age in Ireland 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 late Bronze Age or Iron Age. It is likely that there was significant continuity in the Iron Age, with earlier monuments re-used in many cases. There are no known Iron Age monuments recorded within the study area of the proposed development

16.4.1.5 Early Medieval Period (c. AD 500–1100)

The early medieval period is depicted in the surviving sources as an almost entirely rural based society. Territorial divisions were based on the *túath*, or petty kingdom, with Byrne (1973) estimating that there may have been at least 150 kings in Ireland at any given time. This period, with a new religious culture and evolving technologies, saw significant woodland clearance and the expansion of grassland. The present County Clare, then named Thomond, was ruled prior to the 8th century, by the *Eoghanacht*, who over the course of the 8th century were overcome by a group known as *Deis Tuaisceart*, who continued to gain power and were later known as *Dál gCais* and then *Uí Briain* (O' Murchadha 1992).

The ringfort or rath is considered to be the most common indicator of settlement during the early medieval period (Stout 1997). One of the most recent studies of early medieval settlement enclosures has suggested that there is potential for at least 60,000 such sites to have existed on the island (O'Sullivan et al. 2014). Ringforts were often constructed to protect rural farmsteads and are usually defined as a broadly circular enclosure delineated by a bank and ditch. Ringforts can be divided into three broad categories – univallate sites, with one bank or ditch; multivallate sites with as many as four levels of enclosing features and platform or raised ringforts, where the interior of the ringfort has been built up. These enclosed sites were intimately connected to the division of land and the status of the occupant. Though clearly not designed to withstand a prolonged attack by a large and organised force, they would have functioned well in the climate of endemic raiding which existed in early medieval Ireland. There are other earthwork sites, listed as enclosures, whose precise classification is unclear, but may be interpreted as denuded ringforts or similar sites. There are a total of 11 ringforts within the study area of the proposed development (AH1-AH10, AH25). In addition, three sub-circular aerial photographic anomalies were noted during this assessment which may represent enclosures of an early medieval date (CH8, CH10, CH19) within the study area.

St Senan lived in the 5th-6th century and established a number of Christian communities throughout Ireland before returning to his native Clare where he reputedly founded the monastery at Scattery Island / *Inis Cathaigh* (CL067-024001-, Nat. Mon. 10). CL067-024001-, Nat. Mon. 10), c. 1.6km south of the proposed development (O' Riain 2011). There is a tradition that Scattery Island was chosen by St Senan as the location for the monastery following his defeat of a serpent that occupied the island (ibid.). Today the remains of the early medieval and medieval ecclesiastical features of the island are National Monuments in State Care.

16.4.1.6 Medieval Period (c. AD 1100–1600)

About the year 1290, the Anglo-Norman invaders penetrated into the very heart of Thomond, having initially made their conquests in the eastern half of the country but they were compelled to make a precipitate retreat on the advance of Cathal, prince of Connaught. Edward I, by letters dated January 26th, 1275, granted the whole land of Thomond to Thomas de Clare, son of the Earl of Gloucester, who formed a formidable force to support his claim (Westropp 1890).

During the 15th and 16th centuries tower-houses were built to accommodate landowners as defensive homesteads. There are 85 tower-houses recorded in County Clare, many of which are situated in the southeast of the county. There are some references to Kilrush during the 16th and 17th centuries, but it does not seem to have developed much until the end of the 18th century.

The Shannon estuary was also witness to the events of 1588, during which between 26 and 33 ships of the Spanish Armada were wrecked on the Irish Coast (Miles 2021). After a decisive defeat at the hands of the English fleet, decided on their homeward route round the Scottish and Irish coast. This retreat coincided with some of the worst storms on record. One vessel,

the *Annunciada*, a 700-ton merchantman with 24 guns and 275 crew members was burnt near Scattery Island (1.3km south of the study area) and Kilrush on the Lower Shannon Estuary (www.clarelibrary.ie). The crew of the *Annunciada* were taken aboard the *Barca de Danzig*, after being refused aid from the Anglo-Irish on shore. The Spanish sailors chose to burn the ship (which was barely seaworthy following damage during the battle and then storms) rather than have it salvaged by the Anglo-Irish authorities. The *Barca de Danzig* is recorded as having returned safely to Spain.

16.4.1.7 Post-Medieval Period (c. AD 1600–1800)

At the end of the 18th century Kilkee was noted as a destination for restitutive sea bathing. Lewis described Kilkee in 1837 as “a village... containing 1051 inhabitants. In 1831 it consisted of 153 houses; since which time several houses and bathing lodges have been erected, the village being much frequented as a bathing-place, chiefly by the citizens of Limerick, on account of its remarkably fine strand, which is sheltered by a ledge of rocks stretching across one-third of Kilkee bay” (Lewis 1837).

The Moland Survey of 1703 describes Kilrush as “distant from Limerick 32 miles by land and 36 miles by water.... there is a bridge of stone over ye river, a very commodious haven for barks or small ships, a good conveniency of fishing which may be improved here considerably, the land is good for corn, and the situation of this town makes it capable of improvement” (www.clarelibrary.ie).

Originally of Dutch origin, the Vandeleur family were the most prominent landlord family in West Clare in the post-medieval period (Scanlan 2009). The Rev. John Vandeleur arrived in Kilrush in 1688 with his descendant John Ormsby Vandeleur building the large family home, Kilrush House, in 1808, located c. 400m east of the study area. At the turn of the 19th century, he was assisted in developing the Kilrush town by James Patterson, who had been a gunboat lieutenant. In 1802 Patterson decided to enter the oats trade in West Clare by dealing directly with ships as they passed up the river, offering cheaper rates than in Limerick. As Kilrush and the neighbouring countryside began to prosper, Hely Dutton reported in 1808 that the town was “rising fast into some consequence”. In 1831 it was reported that the creek or natural harbour of Kilrush, was dry at low water, admitting only small craft even with the tide; and was provided with two small quays and a patent slip. The Schools Collection records that the Vandeleur landlords were not fondly viewed by at least some of their tenants, one of the Vandeleur family being referred to as ‘well and bitterly remembered by the peasants’ (The Schools’ Collection, Volume 0600, Page 072), with details of evictions also mentioned.

At Cappagh village is a substantial pier where, at the turn of the 20th century, steamers trading with Limerick loaded and discharged, and was the principal place for visitors to Kilkee to land and embark. In the 1890s a steamer passed between Limerick and Kilrush all the year round, taking goods and passengers, and in the summer season a passenger boat runs in connection with the railway to and from Foynes harbour.

The West Clare Railway (WCR) (CH1) operated a steam-driven rail service from 1887 until 1952, after which diesel powered trains were used (www.clarelibrary.ie). It consisted of a 3ft narrow gauge railway which ran from Ennis to Miltown Malbay, a total of 43.4km. The southern line of the WCR was completed in 1892 and served Kilrush and Kilkee. Following the closure of the railway in 1961, much of the former route of the WCR was removed and returned to use as agricultural land. In other areas, it remains as an overgrown feature in the landscape. A number of BH sites in the study area are associated with the railway, including three former railway stations (BH11, BH13 and BH20) and other related infrastructure (BH19). A total of 25 cultural heritage receptors (CH1.1-CH1.25) associated with the former railway have been identified during this assessment, which include level crossings, keeper’s cottages, mile posts and former stations. In addition, the West Clare Railway museum formerly occupied the Moyasta Station (BH13) but has since closed (c. 2022). A number of railway features

associated with the West Clare Railway are present within two areas at Moyasta Junction (CH1.11, CH1.12).

The ending of the Williamite Wars saw the beginning of a comparative politically calm era, which allowed the country's landowners the security to experiment with the latest styles of architecture without the need to refer to defensive matters. Initially, constraints on available resources resulted in mansions of a relatively modest scale and relatively plain appearance. However, as the Irish aristocracy's sense of security grew over the following decades, their greater access to wealth helped foster a shift towards more ostentatious buildings. The study area of the proposed development was, however, not considered a particularly favourable location for an estate and demesne due to its remote location. No designed landscapes are shown on the historic OS maps of the study area or listed in the NIAH Garden Survey. Instead, the structures of architectural merit in the study area are of a more modest and practical type, for example, bridges, railway infrastructure, former mills, and occasional residential buildings.

In this area of County Clare, it is more common to encounter vernacular homesteads and farmyards, some of which date to at least the mid-19th century. Vernacular architecture is described as 'a mode of building based on regional forms and materials' (Harris 1983). The construction of vernacular houses was carried out by communities of family and neighbours, often referred to as a *meitheal* or work team (O' Reilly 2011). Irish vernacular houses feature comparatively small windows and doors, which prevented weakening of the walls, which in many cases did possess deep foundations, if any at all. These openings may be irregularly arranged, in contrast to the symmetrical arrangements typical of the estate houses. Many surviving vernacular houses have been extensively altered in the intervening centuries since their original construction. There are a large number of vernacular houses within the study area of the proposed development (CH2-CH5, CH7, CH9, CH11-CH18, CH20-CH30, CH32).

16.4.4 Recorded Monuments (AH sites) within the Study Area

A total of 18 Recorded Monuments (AH sites) are located within the study area for the proposed development. These are listed in Table 16.5 and are illustrated on Figure 16.1 to 16.8 in Volume 3 of this EIAR. None of the AH Sites are National Monuments in State Care/Guardianship, or subject to Preservation Orders. Scatterry Island (CL067-024001-, Nat. Mon. 10) is visible from the route of the proposed development but is located c. 1.6km south of the proposed development.

Table 16-5 Archaeological Heritage sites within the Study Area

AH No	RMP No	Townland	Classification	Closest Chainage	Dist. from Project	Statutory Protection
AH1	CL056-051- ---	Lisdeen	Ringfort - rath	CH2+200M	c. 250m north	RMP
AH2	CL056-052- ---	Lisdeen	Ringfort - rath	CH2+800M	Immediatel y north	RMP
AH3	CL056-053- ---	Lisdeen	Ringfort - rath	CH2+900M	0m	RMP
AH4	CL056-055- ---	Garraun (Moyarta By.)	Ringfort - rath	CH3+675M	Immediatel y south	RMP
AH5	CL056-056- ---	Garraun (Moyarta By.)	Ringfort - rath	CH4+050M	c. 250m north	RMP

AH No	RMP No	Townland	Classification	Closest Chainage	Dist. from Project	Statutory Protection
AH6	CL056-094- ---	Garraun (Moyarta By.)	Ringfort - rath	CH4+100M	c. 51m south	RMP
AH7	CL056-057- ---	Garraun (Moyarta By.)	Ringfort - rath	CH4+350M	c. 173m northeast	RMP
AH8	CL056-058- ---	Garraun (Moyarta By.)	Ringfort - rath	CH4+900M	c. 206m north	RMP
AH9	CL056-059- ---	Baumore	Ringfort - rath	CH5+300M	c. 56m east	RMP
AH10	CL056-060- ---	Baumore	Ringfort - rath	CH5+750M	c. 250m north	RMP
AH11	CL056- 061001-	Baumore	Church	CH6+025M	c. 244m north	RMP
AH12	CL056- 061002-	Baumore	Graveyard	CH6+025M	c. 223m north	RMP
AH24	CL067- 001002-	Leadmore West	<i>Fulacht fia</i>	CH13+200 M	c. 250m north	Proposed RMP
AH25	CL067- 001001-	Leadmore West	Ringfort - rath	CH13+300 M	c. 250m north	RMP
AH26	CL067- 006001-	Leadmore West	Church	CH14+000 M	c. 184m north	RMP
AH27	CL067- 006002-	Leadmore West	Graveyard	CH14+025 M	c. 118m north	RMP
AH28	CL067-060- ---	Leadmore West	Redundant record	CH14+300 M	c. 23m north	Redundant Record
AH31	CL056-098	Lisdeen	Redundant record	CH1+800M	c. 170m south	Redundant Record

16.4.5 Built Heritage Sites (Protected Structures and NIAH sites) within the Study Area

A review of the Clare County Development Plan and NIAH has shown that 10 recorded built heritage receptors within the study area of the proposed development (Table 16.6), all of which are subject to statutory protection. Each BH site is marked on Figure 16.1 to 16.8, Volume 3 of this EIAR.

Table 16-6 Built Heritage sites within the Study Area

BH No	RPS	NIAH	Townland	Classification	Closest Chainage	Dist. from Project	Statutory Protection
BH11	403	20301006	Dough (Corcomroe)	Kilkee Railway Station (former)	CH0+00M	c. 200m west	Yes
BH12	186	20405629	Garraun (Moyarta), Termon West	Blackweir Bridge	CH3+925M	Immediately south	Yes

BH No	RPS	NIAH	Townland	Classification	Closest Chainage	Dist. from Project	Statutory Protection
BH13	324	20405701	Moyasta	Moyasta Railway Station	CH8+250M	c. 32m east	Yes
BH18	888	n/a	Leadmore West	Distillery and Quay	CH14+900M	Immediately south	Yes
BH19	886	n/a	Leadmore West	West Clare Railway Engine House	CH15+050M	c. 11m south	Yes
BH20	884	n/a	Kilrush	Railway Station	CH15+179M	Immediately east	Yes
BH21	858	20301225	Kilrush	Glynn Marine Supplies (former mill)	CH15+179M	c. 97m east	Yes
BH22	859	20301226	Kilrush	House	CH15+179M	c. 135m east	Yes
BH23	860	20301227	Kilrush	The Monastery	CH15+179M	c. 143m east	Yes
BH24	874	20301230	Kilrush	Warehouse (former mill)	CH15+179M	c. 163m east	Yes

16.4.6 Architectural Conservation Areas (ACAs) within the Study Area

A review of the Clare County Development Plan has shown that the proposed development is partially within the Kilrush ACA at its eastern extent (Chainage CH14+850M to CH15+179M). The extent of the Kilrush ACA is depicted on Figure 16.1 to 16.8, Volume 3 of this EIAR. Kikee ACA will not be impacted, as it is located outside the study area of the proposed development, c. 312m to the west-northwest of the western extent of the proposed development.

16.4.7 Designed Landscapes

The historic OS mapping and the NIAH Garden Survey were reviewed as part of this assessment. There are no demesne landscapes within the study area of the proposed development.

16.4.8 Summary of Previous Archaeological Investigations within the Study Area

A review of the Excavations Bulletin (1970–2025) and the available excavation reports have revealed that only one previous archaeological investigation has taken place within the study area of the proposed development.

Archaeological monitoring of works associated with a wastewater treatment plant and associated mains was carried out within the townlands of Kilrush, Cappagh and Leadmore West (Licence No. 22E0046). The site of the WWTP is located to the immediate south of the proposed development at Chainage CH14+050M to CH14+200M. No features of archaeological potential were identified during the works (Bennett 2023:242).

16.4.9 Aerial Photographic Analysis and LIDAR Coverage

A number of aerial anomalies were identified during the review of the aerial photographic analysis which may be of archaeological or cultural heritage significance. These are detailed below in Section 16.4.13.

The available LIDAR data for the study area covers the western and eastern extents of the of the proposed development and this was examined as part of this assessment. No additional anomalies were identified.

16.4.10 Topographical Files of the National Museum of Ireland

Information on artefact finds from the study area in County Clare has been recorded by the National Museum of Ireland since the late 18th century. Location information relating to these finds is important in establishing prehistoric and historic activity in the study area. A number of stray artefact finds have been recovered from townlands within the study area; however, no precise find locations are recorded, so it is unclear if they were recovered from the study area of the proposed development (Table 16-7).

Table 16-7 Stray finds from the Study Area

NMI Ref.	Townland	Description
1941:973	Baunmore	Iron cooking spit
P0601	Kilrush	Copper penannular armlet, formerly plated with gold. Found in an old brass box.
2011:289	Cappagh	Bronze protected looped spearhead with lunate openings. Complete spearhead recently cut in half with just below the blade. Blade is elongated leaf-shaped, with low ridges running parallel to the edges, a prominent mid-rim and decorative holes at broad section of blade. Pointed oval cross-section with a prominent rounded midrib, slightly bend at point. Modern wooden shaft. L 37 W 5 D 2.5cm. Found during the digging of the foundations of a house in 1830.

16.4.11 Clare Museum Collections

The collections held by the Clare Museum were consulted as part of this assessment. A number of objects relating to the West Clare Railway are held in the museum, and while these were not necessarily recovered from the section of the railway within the study area, they are relevant to the overall former railway including the remains present within the study area of proposed development.

The ceremonial spade and barrow (2000.88.1-2), which were used for turning the sod on the construction of the railway, are held in the Clare Museum. The sod turning was carried out by Charles Stewert Parnell and occurred on the 26th of January 1885 (despite the fact that works had actually begun the previous November). The items were held by Clare County Council for decades, and it seems that in the 1970s and 1980s and possibly as late as the 1990s, it was used for ceremonial sod-turning for a numerous developments in County Clare and has seen some damage to the spade edges as a result (www.claremuseum.ie).

Other objects held by the Clare Museum and relating to the West Clare Railway include a station sign for Corofin Station (2010.3) (which postdates Irish Independence), a station master's hat from Lahinch Station (2012.10) and a West Clare Railway Button (2005.211.6), of unknown origin, but most likely from the uniform of an employee of the West Clare Railway (www.claremuseum.ie).

16.4.12 Results of Field Inspection

The detailed results of the field inspection are presented in Appendices 16.1 and 16.2. The field inspection resulted in the identification of a number of previously unrecorded cultural heritage receptors, which are included below in Section 16.4.13.

16.4.13 Cultural Heritage Receptors

A number of previously unrecorded sites of Cultural Heritage merit have been identified during the course of this appraisal through historic mapping, aerial photography and field inspection. A total of 37 CH sites have been identified through these methods within the study area containing the proposed development (Table 16.8). These are illustrated on Figure 16.1 to 16.8, Volume 3 of this EIAR. Plates referenced in the below table are included in Appendix 16.2.

A large number of the unrecorded cultural heritage receptors identified during this assessment are associated with the former West Clare Railway, which has been designated CH1. Each of the associated features have been designated a reference number in relation to this - CH1.1, CH1.2 etc.

Table 16-8 Previously unrecorded sites of Cultural Heritage merit within the Study Area

CH No	Townland	Description	Closest Chainage	Dist. from Project
CH1	14 townlands	West Clare Railway and associated features	CH0+00M to CH15+179M	0m
CH1.1	Dough	Keepers Cottage and Level Crossing shown on historic OS map of 1898.	CH0+650M	0m
CH1.2	Dough	Site of mile post shown on historic OS map of 1898.	CH0+825M	0m
CH1.3	Lisdeen	Keepers Cottage and Level Crossing shown on historic OS map of 1898.	CH1+350M	0m
CH1.4	Lisdeen	Level Crossing shown on historic OS map of 1898.	CH1+975M	0m
CH1.5	Lisdeen	Site of mile post shown on historic OS map of 1898.	CH2+425M	0m
CH1.6	Lisdeen	Level Crossing shown on historic OS map of 1898.	CH2+500M	0m
CH1.7	Garraun	Blackweir Station, shown on the historic OS map of 1898, now converted to residential use.	CH3+825M	c. 23m south
CH1.8	Garraun	Keepers Cottage and Level Crossing shown on historic OS map of 1898.	CH4+925M	Immediately south
CH1.9	Moyasta	Keepers Cottage and Level Crossing shown on historic OS map of 1898.	CH6+775MM	Immediately northwest
CH1.10	Moyasta	Railway Bridge across the river mouth at Poulnasherry Bay on the Shannon Estuary. Shown on the historic OS map of 1898 and contemporary with the construction of the West Clare Railway.	CH7+850M	0m

CH No	Townland	Description	Closest Chainage	Dist. from Project
CH1.11	Moyasta	Group of railway infrastructure features shown on the historic OS map of 1898. and centred on the former West Clare Railway museum (BH13, closed 2022)	CH8+200M	0m
CH1.12	Moyasta	Group of railway infrastructure features shown on the historic OS map of 1898 including Level Crossing, intact stretches of railway, one railway carriage and the western portion of Moyasta Junction.	CH7+975M	0m
CH1.13	Moyasta	Level Crossing shown on historic OS map of 1898.	CH8+400M	0m
CH1.14	Moyasta	Site of level Crossing shown on historic OS map of 1898.	CH8+200M	0m
CH1.15	Carrowncalla North	Keepers Cottage and Level Crossing shown on historic OS map of 1898.	CH9+850M	0m
CH1.16	Carrowncalla South	Site of mile post shown on historic OS map of 1898.	CH10+075M	0m
CH1.17	Carrowncalla South	Level Crossing shown on historic OS map of 1898.	CH10+800M	c. 50m east
CH1.18	Carrowncalla South	Level Crossing shown on historic OS map of 1898.	CH11+875M	0m
CH1.19	Carrowncalla South	Site of mile post shown on historic OS map of 1898.	CH12+200M	0m
CH1.20	Leadmore West	Keepers Cottage and Level Crossing shown on historic OS map of 1898.	CH13+9000M	Immediately south
CH1.21	Kilrush	Group of railway infrastructure features shown on the historic OS map of 1898, including railway tracks, sidings, signal box, unlabelled buildings and a reservoir.	CH15+179M	0m
CH1.22	Lisdeen	A collapsed railway bridge over stream shown on the historic OS map of 1898.	CH2+250M	0m
CH1.23	Moyasta	Culvert running under CH1	CH8+575M	0m
CH1.24	Leadmore West	Keepers Cottage	CH15+179M	7m northeast
CH1.25	Moyasta/ Carrowncalla North/ Carrowncalla South	Large linear drainage feature contemporary with the WCR	CH8+200M to CH10+050M	0m

CH No	Townland	Description	Closest Chainage	Dist. from Project
CH1.26	Kilrush	Pedestrian arched entrance, currently defined with roughly dressed and coursed masonry with red brick reveals. Reconstruction in the style of railway architecture. Contains a plaque noting the presence of the West Clare Railway, although the entrance is located to the immediate north of the original railway.	Kilrush Entrance	0m
CH2	Dough	Group of four vernacular structures on the first edition OS map of 1842. By the time of the 1898 OS map these structures have been extended. Of the group only three appear to be upstanding and have been heavily altered.	CH0+450M	c. 130m north
CH3	Dough	Vernacular structure shown on the historic OS mapping of 1842 and 1898. Today, the structure is located within in a large pasture with no apparent access road, which suggests it may be disused or ruinous. It may also have been adapted for use for agricultural purposes.	CH0+825M	c. 29m south
CH4	Lisdeen	A vernacular house shown on the first edition OS map of 1842. Now incorporated into a modern farmyard.	CH1+400M	c. 50m north
CH5	Lisdeen	Vernacular house shown on the first edition OS map of 1842. It survives as a ruin.	CH1+550M	c. 134m north
CH6	Lisdeen	Site of a well depicted on the historic OS map of 1898.	CH1+600m	0m
CH7	Lisdeen	A vernacular house shown on the first edition OS map of 1842, now altered.	CH2+450M	c. 127m north
CH8	Lisdeen	Rectangular and sub-circular anomalies visible on the Google Earth imagery of 2024 within greenfield agricultural land (Plate 16.1).	CH2+275M to CH2+450M	c. 89m south
CH9	Garraun	Group of structures arranged around a central yard, shown on the first edition OS map of 1842 and annotated as 'Shannon View'. The group includes a lime kiln, ringfort (AH7) and a formal garden to the east of the main structures. By the time of the 1898 OS map	CH4+350M	c. 69m east

CH No	Townland	Description	Closest Chainage	Dist. from Project
		the formal garden is no longer depicted. Today, many of the outbuildings are in ruins or removed.		
CH10	Baunmore	Sub-circular anomaly visible in the Google Earth imagery of 2010 within greenfield agricultural land (Plate 16.2).	CH5+750M	c. 40m north
CH11	Moyasta	Group of vernacular structures shown on the first edition OS map of 1842. They survive in ruins.	CH7+050M	c. 164m North
CH12	Moyasta	Group of vernacular structures depicted on the first edition OS map of 1842, by the time of the 1898 OS map the group is significantly altered and it is unclear if any of the original fabric survives.	CH7+350M	c. 32m north
CH13	Moyasta	Group of vernacular structures depicted on the first edition OS map of 1842, now incorporated into a modern farmyard.	CH7+750M	c. 209m north
CH14	Moyasta	Vernacular structure shown on the first edition OS map of 1842. It is depicted as a 'Post Office' in 1898.	CH8+200M	c. 127m north
CH15	Moyasta	Vernacular structure shown on the first edition OS map of 1842	CH8+250M	c. 55m east
CH16	Moyasta	Vernacular structure shown on the first edition OS map of 1842	CH8+250M	c. 198m east
CH17	Moyasta	Group of structures shown on the first edition OS map of 1842. It appears they survive as ruins.	CH8+275M	c. 59m west
CH18	Carrowncalla North	Group of three structures shown on the first edition OS map of 1842, only one remains extant and is in ruins.	CH9+350M	c. 95m west
CH19	Carrowncalla South	Curving field boundary and aerial anomaly visible in the Google Earth imagery of 2024 (Plate 16.3).	CH10+400M	c. 117m east
CH20	Carrowncalla South	Group of vernacular structures shown on the first edition OS map 1842. Now incorporated into a modern farmyard.	CH10+750M	c. 39m east
CH21	Carrowncalla South	Group of vernacular structures shown on the first edition OS map 1842. Labelled as 'Ferry Lodge' on the historic OS map of 1898.	CH11+850M	c. 110m north

CH No	Townland	Description	Closest Chainage	Dist. from Project
CH22	Carrowncalla South	Group of vernacular structures shown on the first edition OS map of 1842 but significantly altered by 1898.	CH12+050M	c. 184m west
CH23	Carrowncalla South	Vernacular structure shown on the first edition OS map of 1842, now in ruins.	CH12+500M	c. 245m west
CH24	Carrowncalla South	Group of vernacular structures depicted on the first edition OS map of 1842. Now appear to be in use as storage sheds.	CH13+850M	c. 70m east
CH25	Leadmore West	Group of vernacular structures depicted on the first edition OS map of 1842, now incorporated into a modern farmyard.	CH13+450M	c. 174m north
CH26	Leadmore West	Vernacular structure shown on the first edition OS map of 1842, now in ruins.	CH13+450M	c. 30m south
CH27	Leadmore West	Group of vernacular structures shown on the first edition OS map of 1842.	CH13+700M	c. 105m north
CH28	Leadmore West	Small structure shown on the 1898 OS map and labelled as 'Ice House'.	CH14+250M	c. 118m north
CH29	Leadmore West	Structure shown on the first edition OS map of 1842, later extended in 1898. Now in ruins.	CH14+250M	c. 18m north
CH30	Leadmore West	Structure shown on the first edition OS map of 1842. Later altered in 1898.	CH15+000M	c. 43m north
CH31	Garraun	Pre-independence post-box (not in use)	CH3+925M	c. 25m south
CH32	Garraun	Derelict vernacular house seen on the 1842 and 1898 OS mapping	CH3+925M	c. 2m south
CH33	Moyasta	A short preserved portion (c. 50m) of the old road depicted on the historic mapping	CH8+175M	c. 16m north
CH34	Leadmore West	Soup pot from the Famine	CH14+250M	c. 170m north
CH35	Leadmore West	Possible slipway	CH14+650M	c. 10m south
CH36	Cappagh	Kilrush Lock at Kilrush Creek Marina	CH14+550M	c. 220m south
CH37	Carrowncalla North/ Carrowncalla South	Small Stone Bridge	CH9+775M	0m

16.4.13.1 Cultural Heritage and Folklore

Traditionally, many sites of archaeological significance have been linked in local memory and folklore to supernatural events or beings. The School's Collection of folklore relates to stories collected by school children in the late 1930s from their elders in the local community (www.duchas.ie). One such record from the school in the townland of Termon West, to the south of the proposed development, relays the story of a 'leprachaun' which was sighted in fields east of the school. This supernatural being was associated in the story with dusk and midnight. The record states that the police from the RIC Barracks in Kilkee were contacted to come and search for the leprechaun but could not find him. The record concludes with 'one night as a man was coming from his *cuaird* through Lillis's land and as he was nearing the fort he heard music and dancing and he saw the leprechaun inside' (The Schools' Collection, Volume 0628, Page 233). It is unclear which fort is referred to by this, but it is clear that the connection between the archaeological monument (likely an enclosure or ringfort) and the supernatural is emphasised. Superstition surrounding the destruction of ringforts is also common in Ireland and is demonstrated in the story of a man from Kilkee who wished to level a fort and when his workmen refused, he jumped over a wall to do the work himself and in doing so broke his leg and was bedbound for the rest of his life (The Schools' Collection, Volume 0628, Page 274).

The Schools Collection also records that there was once a fair green in Lisdeen (The Schools' Collection, Volume 0628, Page 247); however, no locational information is recorded. It is likely to have been to the north of the study area, in the vicinity of the N67 to allow easy access for farmers and their livestock. There is also a record of a road in Lisdeen known locally as '*Bothar na Brice*', so named as bricks were manufactured along the roadway in the past (The Schools' Collection, Volume 0628, Page 261). It is unclear which road is referred to or if it still in use, but it is clear a tradition of brick making is known in the area.

Shanakyle graveyard (AH27) is referred to in the Schools Collection as a place where mass burials occurred during the Famine. 'At the time of the Famine, a big cart went round and brought all the dead bodies to one grave in Shanakyle and threw them into it' (The Schools' Collection, Volume 0629, Page 412). Burials of this nature occurred in many established graveyards in the Famine era and are also associated with various epidemics in the 19th century (for example, cholera).

The story of a Viking raid on a settlement on Deer Island, in the Shannon Estuary is also recorded in the Schools Collection. While Deer Island is located far to the east of the proposed development, it is claimed that once the Vikings had raided the settlement (ruled over by a chieftain named O' Connor), they came to Kilrush where their ship was wrecked in a storm. When O' Connor came to Kilrush in an attempt to retrieve his stolen belongings, including a golden chalice, he learned that the chalice was lost in the estuary along with the ship (The Schools' Collection, Volume 0604, Page 005). In his absence, his wife was killed by the Vikings, but not before she had buried the remainder of their wealth in an unknown location close to their settlement on Deer Island.

16.4.14 Areas of Archaeological Potential (AAP)

A number of areas of archaeological potential have been identified during this assessment, which include previously undisturbed greenfield areas, some of which are in close proximity to watercourses or the estuary. These areas have a higher potential for surviving archaeological features or deposits below ground level without surface expression. These areas are detailed below in Table 16-9 and shown on Figure 16.1 to 16.8 in Volume 3 of this EIAR.

Table 16-9 Areas of Archaeological Potential in the Study Area

AAP No.	Townland	Description	Chainage	Dist. from Project
AAP1	Lisdeen	Watercourse	CH1+300M to CH1+400M	0m
AAP2	Lisdeen	Undisturbed greenfield within ZON for AH2 and AH3	CH2+500M to CH3+525M	0m
AAP3	Garraun	Undisturbed greenfield	CH3+775m to CH4+675M	0m
AAP4	Garraun	Undisturbed greenfield, adjacent to watercourse	CH4+975M to CH6+225M	0m
AAP5	Moyasta	Undisturbed greenfield, adjacent to watercourse	CH6+325M to CH6+925M	0m
AAP6	Moyasta	Adjacent to watercourse	CH7+375M to CH7+425M	0m
AAP7	Carrowncalla North	Undisturbed greenfield, partially adjacent to estuary	CH9+250M to CH9+850M	0m
AAP8	Carrowncalla South	Undisturbed greenfield, adjacent to estuary	CH10+150M to CH10+300M	0m
AAP9	Carrowncalla South	Undisturbed greenfield, adjacent to estuary	CH10+575M to CH12+000M	0m
AAP10	Carrowncalla South	Undisturbed greenfield, adjacent to estuary	CH12+475M to CH12+950M	0m
AAP11	Carrowncalla South	Undisturbed greenfield, adjacent to estuary	CH13+000M to CH13+100M	0m

16.4.15 Townland Boundaries

Eight townland boundaries (TB) are located within the proposed development area (Table 16.10).

The townland is an Irish land unit of considerable longevity as many of the units are likely to correspond to much earlier land divisions. However, the term townland was not used to denote a unit of land until the Civil Survey of 1654. It bears no relation to the modern word 'town' but like the Irish word *baile* refers to a place. It is possible that the word is derived from the Old English *tun land* and meant 'the land forming an estate or manor' (Culleton 1999, 174).

Gaelic land ownership required a clear definition of the territories held by each sept and a need for strong, permanent fences around their territories. It is possible that boundaries following ridge tops, streams or bog are more likely to be older in date than those composed of straight lines (ibid. 179).

The vast majority of townlands are referred to in the 17th century, when land documentation records begin. Many of the townlands are mapped within the Down Survey of the 1650s, so called as all measurements were carefully 'laid downe' on paper at a scale of forty perches to one inch. Therefore, most are in the context of pre-17th century landscape organisation (McErlean 1983, 315).

In the 19th century, some demesnes, deer parks or large farms were given townland status during the Ordnance Survey and some imprecise townland boundaries in areas such as bogs or lakes, were given more precise definition (ibid.). Larger tracts of land were divided into a number of townlands, and named Upper, Middle or Lower, as well as Beg and More (small and large) and north, east, south and west (Culleton 1999, 179). By the time the first Ordnance Survey had been completed, a total of some 62,000 townlands were recorded in Ireland. The townlands, parishes and baronies of County Clare were recorded by John O' Donovan and Eugene Curry, c. 1939 as testified in the Ordnance Survey Letters (www.clarelibrary.ie).

Some of the eight townland boundaries within the proposed development (Table 16.10) follow natural watercourses, but many were defined properly in the 19th century and are marked by roads and hedgerows. The development of road infrastructure and the former West Clare Railway has previously impacted upon the landscape and in some circumstances the physical elements of townland boundaries are no longer extant. The townland boundaries are shown on Figure 16.1 to 16.8, Volume 3 of this EIAR.

Table 16-10 Townland Boundaries

TB No	Townlands	Description	Chainage	Dist from Project
TB1	Dough /Lisdeen	Previously impacted by the route of the former West Clare Railway.	CH0+925M	0m
TB2	Lisdeen/ Garraun	Follows route of a watercourse, previously impacted by the former West Clare Railway.	CH3+550M	0m
TB3	Garraun/ Baunmore	Marked by a field boundary.	CH5+075M to CH5+175M	0m
TB4	Baunmore/ Moyasta	Marked by a roadway further north, previously impacted by the former West Clare Railway.	CH6+300M	0m
TB5	Moyasta/ Carrownacalla North	Marked by a field boundary, previously impacted by the former West Clare Railway.	CH8+775M	0m
TB6	Carrownacalla North/ Carrownacalla South	Marked by a roadway.	CH9+825M to CH9+950M	0m
TB7	Carrownacalla South/ Leadmore West	Marked by a field boundary, previously impacted by the former West Clare Railway.	CH13+225M	0m
TB8	Leadmore West/ Kilrush	Marked by a roadway.	CH15+277.75M	0m

16.4.16 Analysis of the Placenames within the Study Area

Townland names are an invaluable source of information on topography, landownership and land use within the landscape. They can also provide information on the history, archaeological monuments and folklore of an area. A place name may refer to a long-forgotten site and may indicate that remains still survive below the ground surface. The Ordnance Survey recorded townland names in the 1830s and 1840s, when the entire country was mapped for the first time. Some of the townland names in the study area are of Irish origin and through time have been anglicised. The main references used for the place name analysis are Irish Local Names Explained by P.W Joyce (1870) and the Place Names

Database of Ireland. A description and possible explanation of each townland, parish, barony and county name within the study area are provided in the below table (Table 16.11).

Table 16-11 Placename analysis

Name	Origin	Derivation	Possible meaning
Lismuse	Irish	<i>Lios Miús</i>	Pleasant fort
Baunmore	Irish	<i>An Bán Mór</i>	The big grassy / white lea-ground
Dough	Irish	<i>Dumhach</i>	Mound/sand bank
Lisdeen	Irish	<i>Lios Duibhinn</i>	Fort of <i>Duibhinn</i>
Termon West	Irish	<i>An Tearmann</i>	The sanctuary (later subdivided into west and east)
Garraun	Irish	<i>An Garrán</i>	The grove
Moyasta	Irish	<i>Maigh Sheasta</i>	Plain of the spear
Carrowncalla North	Irish	<i>Ceathrú an Chalaídh</i>	Quarterland of the callow/ floodplain (later subdivided into north and south)
Carrowncalla South	Irish	<i>Ceathrú an Chalaídh</i>	Quarterland of the callow/ floodplain (later subdivided into north and south)
Leadmore West	Irish	<i>Léid Mhóir</i>	The great breadth
Kilrush	Irish	<i>Cill Rois</i>	Church of the wood
Cappagh	Irish	<i>An Cheapach</i>	The tillage plot

16.5 Assessment of Potential Impacts

16.5.1 Introduction

The evaluation of the potential impacts on Cultural Heritage was undertaken in accordance with the criteria set out in Section 16.3.3.

16.5.2 Potential Construction Impacts

16.5.2.1 Archaeological Heritage

The construction of the proposed development will not result in any direct impacts on archaeological heritage sites located within the study area. Two monuments (AH4, a ringfort in Garraun, and AH28 a redundant record in Leadmore West) are located immediately adjacent to the proposed development, but these areas have already been subject to ground disturbances due to the previous construction of the railway.

AH2 and AH3, two ringforts in Lisdeen, are located c. 5m to the north of the proposed development and whilst the monuments will not be directly impacted, it is possible that ground works associated with the construction of the project will result in *direct, negative (permanent) impacts* on any buried archaeological remains that may be associated with the monuments. The sensitivity of any remains would be high and the magnitude of impact would be high, leading to a significance of effect on AH2 and AH3 during construction being *significant*.

16.5.2.2 Built Heritage

The construction of the proposed development will not result in any direct impacts on built heritage sites located within the study area, as none of the structures are located within the footprint of the project.

The proposed construction compound in Kilrush, at the location of the proposed trailhead, is located within Kilrush ACA, adjacent to the former Kilrush railway station (BH20). The construction of the proposed development will result in a *direct, negative (temporary) impact* on the ACA. The sensitivity of this area is high and the magnitude of impact will be medium, resulting in a *moderate significance* of effect. No construction impacts are predicted upon BH20.

16.5.2.3 Cultural Heritage

The construction of the proposed development will result in a number of impacts on cultural heritage sites that have been identified during the course of this assessment:

CH1 West Clare Railway – Ground works associated with the construction of the proposed development will result in a *direct, negative (permanent) impact* on the physical remains of the railway. The sensitivity of the feature is medium and the magnitude of impact will be medium, resulting in a *moderate significance* of effect.

CH1.1 Keepers Cottage and Level Crossing (Dough) – Ground works associated with the construction of the proposed development will be located c. 2m to the north and east of these sites and as such neither the level crossing nor cottage will be impacted by construction. No construction impact is predicted.

CH1.2, 1.5, 1.16, 1.19 Site of Mile Post (multiple locations) - Ground works associated with the construction of the proposed development will *directly and negatively* impact the sites of mile posts associated with the railway. The sensitivity of these sites is negligible, and the magnitude of the impact is high, resulting in a *not significant* significance of effect.

CH1.3 Keepers Cottage and Level Crossing (Lisdeen) – Ground works associated with the construction of the proposed development will *directly and negatively* impact the remains of the eastern part of the level crossing. The cottage will not be directly impacted. The sensitivity of the level crossing is low and the magnitude of the impact is high, resulting in a slight significance of effect.

CH1.4 and 1.6 Level Crossing (Lisdeen) – Ground works associated with the construction of the proposed development will *directly and negatively* impact the remains of level crossings at these locations. The sensitivity of the level crossings is negligible and the magnitude of the impact is high, resulting in a *not significant* significance of effect.

CH1.22 Site of collapsed railway bridge (Lisdeen) – Ground works associated with the construction of the proposed development will see the installation of a new single span bridge at this location. Given the existing bridge has been removed the no construction impact is predicted.

CH1.10 Railway Bridge (Moyasta) – The existing bridge will be retained, but will have modern parapets added to the structure and existing vegetation and cover railway tracks will be removed. This will result in a *direct negative* construction impact on the bridge, which possesses medium significance. The magnitude of impact is low and the overall significance of effect is *slight*.

CH1.12 Western part of Moyasta Junction and CH1.14 Level crossing - The construction of the proposed development will be along the railway line and will then run to the north of an extant section of track. No ground works are anticipated at the location of the extant section of track and as such no impact is predicted in relation to CH1.12. The level crossing is no longer extant, having been removed when the road was realigned to the east. No impact is predicted on CH1.14.

CH1.11 Eastern part of Moyasta Junction – The section of extant railway track at this location will be retained in-situ. The proposed compound site, and subsequent proposed trailhead will be located to the south within the existing greenspace. The remaining railway infrastructure, including BH13, is located to the east of the proposed compound / trailhead location and as such no impact is predicted on CH1.11.

CH1.13 Level crossing (Moyasta) – The level crossing marked at this location is no longer extant, having been removed due to road widening. No impact is predicted on CH1.13..

CH1.23 Culvert – This culvert will be retained as part of the construction of the proposed development. No impact is predicted on CH1.23.

CH1.25 Large drain associated with railway (Moyasta/ Callowncalla North/ Carrowncalla South) – The construction of the proposed development will cross this drain in Carrowncalla North by means of a single span bridge. This will be a *direct negative impact* on a feature with low sensitivity. The magnitude of impact will be negligible resulting in a significance of effect that is *imperceptible*.

CH1.26 Pedestrian Entrance – This feature will mark the pedestrian entrance to the proposed development from Kilrush. The feature is a relatively modern reconstruction and not associated with the original railway infrastructure. The feature will be incorporated into the entrance and no construction impacted are predicted on the feature.

CH1.15 (Carrowncalla North) and CH1.18 (Carrowncalla South) Keepers Cottage and Level Crossing – Ground works associated with the construction of the proposed development will *directly and negatively* impact the remains of the southern part of the level crossings. The cottages will not be directly impacted. The sensitivity of the level crossing is low and the magnitude of the impact is high, resulting in slight significance of effect.

CH1.21 Kilrush Station complex – Ground works associated with the temporary construction compound and subsequent construction of the proposed trailhead at the eastern extent of the scheme in Kilrush, have the potential to result in *direct negative* impacts on the site of railway infrastructure marked at this location within the historic mapping, including railway tracks, sidings and associated structures. The sensitivity of the area is medium and the magnitude of impact will be very high, resulting in a *significant* significance of effect.

CH6 Site of well (Lisdeen) – Ground works associated with the construction of the proposed development will *directly and negatively impact* the site of a well. The sensitivity of the site is negligible and the magnitude of the impact is high, resulting in a *not significant* significance of effect.

CH37 Bridge (Carrowncalla North/ Carrowncalla South) - This bridge will be retained as part of the construction of the proposed development and no impact is predicted on the feature.

No construction impacts are predicted upon all remaining cultural heritage sites included within this assessment

16.5.2.4 Areas of Archaeological Potential

Ground disturbances associated with the construction of the proposed development have the potential to *directly and negatively impact* previously unrecorded archaeological remains that may survive within AAPs 1–12, as designated in this assessment. Impacts would be permanent and the sensitivity of the remains may vary from medium to high. Magnitude of impact may be high or very high, resulting in a significance of effect that may vary from *moderate to very significant*.

16.5.2.5 Townland Boundaries

Ground disturbances associated with the proposed development will result in the removal of a short section of townland boundary (TB3 Garraun/ Baunmore). This will be a *direct, negative (permanent) impact*. The sensitivity of the site is medium and the magnitude of impact is negligible, resulting in an imperceptible significance of effect.

16.5.2.6 General

Ground disturbances associated with the construction of the proposed development have the potential to directly and negatively impact previously unrecorded archaeological remains that may survive beneath the current ground level within portions of the project that have not been designated within this assessment. Impacts would be permanent and the sensitivity of the remains may vary from medium to high. Magnitude of impact may be high or very high, resulting in a significance of effect that may vary from moderate to very significant.

16.5.3 Potential Operational Impacts

16.5.3.1 Archaeological Heritage

No operational impacts are predicted upon the AH sites in the study area.

16.5.3.2 Built Heritage

BH13 Moyasta Station – the operation of the trailhead to the west of the station building has the potential to result in an *indirect negative (permanent) impact* on the station building. The sensitivity of the structure is high, and the magnitude of impact is low, which will result in a *slight* significance of effect.

The eastern proposed trailhead is located within Kilrush ACA, adjacent to the former station (BH20). The operation of the proposed development will result in a *direct, negative (permanent) impact* on the ACA. The sensitivity of this area is high and the magnitude of impact will be medium, resulting in a *moderate significance* of effect.

No other operational impacts are predicted upon the BH sites in the study area.

16.5.3.3 Cultural Heritage

CH1 West Clare Railway – the operation of the proposed development will result in a *direct, positive (permanent) impact* on the former railway, due to the fact that the currently disused route will be open to the public as an active travel way and this will increase the accessibility of the industrial heritage of the landscape to the public. The sensitivity of the feature is medium and magnitude of impact is high, resulting in a *significant* significance of effect.

Associated railway features will also be subject to *direct positive (permanent) impacts*, including the following:

- CH1.1 Keepers Cottage and Level Crossing (Dough),
- CH1.3 Keepers Cottage and Level Crossing (Lisdeen),
- CH1.8 Keepers Cottage and Level Crossing (Garraun),
- CH1.9 Keepers Cottage and Level Crossing,
- CH1.10 (Moyasta Railway Bridge),
- CH1.11 Group of railway infrastructure centred on the former West Clare Railway Museum (Moyasta),
- CH1.12 Group of railway infrastructure features,
- CH1.23 Culvert running under CH1 (Moyasta),
- CH1.18 Level Crossing (Carrowncalla South),
- CH1.19 Site of mile post (Carrowncalla South), and
- CH1.20 Keepers Cottage and Level Crossing (Leadmore West)
- CH1.26 Pedestrian Arch.

This is due to the increased accessibility of the industrial heritage to the public. The sensitivity of the features vary from low to medium and magnitude of impact is high, resulting in a *slight* to *significant* significance of effect.

No other operational impacts are predicted upon the CH sites in the study area.

16.5.3.4 Areas of Archaeological Potential

No operational impacts are predicted upon the designated AAPs.

16.5.3.5 Townland Boundaries

No operational impacts are predicted upon the townland boundaries in the study area.

16.6 Do-Nothing Impact

If the proposed development were not to proceed, there would be no negative impacts on the Cultural Heritage resource, but the opportunity to provide public access to the industrial heritage amenity of the former railway would be lost.

16.7 Mitigation Measures

16.7.1 Introduction

The proposed mitigation measures for the archaeological, architectural and cultural heritage are outlined below.

16.7.2 Construction Phase

16.7.2.1 Archaeological Heritage

A programme of archaeological test trenching will be carried out to the south of AH2 ringfort at Lisdeen, prior to the commencement of construction. This will be carried out in consultation with the TII Project Archaeologist and under licence from the National Monuments Service of the DoHGLH. Subject to the results of test trenching, further mitigation may be required, such as preservation by record or in-situ. Any further agreement will require agreement from the National Monuments Service of the DoHGLH.

16.7.2.2 Built Heritage

Prior to the commencement of construction, a written and photographic record will be made of the section of the Kilrush ACA to be developed at the eastern trail head. This will be carried out by a suitably qualified heritage specialist, in consultation with the TII Project Archaeologist.

16.7.2.3 Cultural Heritage

CH1 West Clare Railway – Substantial excavations within the existing railway will be subject to a programme of archaeological test trenching by an archaeologist under licence to the National Monuments Service of the DoHGLH. This will be carried out following a review of detailed design and in consultation with the TII Project Archaeologist. The programme of archaeological test trenching will aim to record the method of railway construction.

A written and photographic record will be made of the following sites, prior to the commencement of construction and following the removal of any vegetation that may be present: CH1.3, CH1.4, CH1.6, CH1.10, CH1.15 and CH1.18. The records will be compiled by a suitably qualified heritage specialist, in consultation with the TII Project Archaeologist.

A programme of archaeological test trenching will be carried out at the site of Kilrush Trail head prior to the commencement of construction. This will be carried out in consultation with

the TII Project Archaeologist and under licence from the National Monuments Service of the DoHLGH. Subject to the results of test trenching, further mitigation may be required, such as preservation by record or in-situ. Any further agreement will require agreement from the National Monuments Service of the DoHLGH.

16.7.2.4 Areas of Archaeological Potential

A programme of archaeological test trenching will be carried out within the designated AAPs prior to the commencement of construction. This will be carried out in consultation with the TII Project Archaeologist and under licence from the National Monuments Service of the DoHLGH. Subject to the results of test trenching, further mitigation may be required, such as preservation by record or in-situ. Any further agreement will require agreement from the National Monuments Service of the DoHLGH.

16.7.2.5 Townland Boundaries

Prior to the removal of the section of TB3, the section of townland boundary to be affected will be subject to a townland boundary survey. Subject to access, this may include the excavation of a test trench in order to record the construction of the boundary. The works will be carried out in consultation with the TII Project Archaeologist and under licence from the National Monuments Service of the DoHLGH.

16.7.2.6 General

A programme of archaeological test trenching will be carried out within all suitably available greenfield areas prior to the commencement of construction. This will be carried out in consultation with the TII Project Archaeologist and under licence from the National Monuments Service of the DoHLGH. Subject to the results of test trenching, further mitigation may be required, such as preservation by record or in-situ. Any further agreement will require agreement from the National Monuments Service of the DoHLGH.

16.7.3 Operation Phase

16.7.3.1 Archaeological Heritage

No mitigation is required at operation phase.

16.7.3.2 Built Heritage

See section 16.7.2.2.

A written and photographic record will be made of BH13, prior to the commencement of construction. The record will be compiled by a suitably qualified heritage specialist, in consultation with the TII Project Archaeologist.

16.7.3.3 Cultural Heritage

No mitigation is required.

16.7.3.4 Areas of Archaeological Potential

No mitigation is required.

16.7.3.5 Townland Boundaries

No mitigation is required.

16.8 Monitoring

The mitigation measures detailed above would also function as a monitoring system to allow the further assessment of the scale of the predicted impacts and the effectiveness of the mitigation measures.

16.9 Residual Effects

16.9.1 Construction Phase

Following completion of mitigation there will be no significant negative residual impacts on the archaeological, architectural or the cultural heritage resource at construction phase.

16.9.2 Operation Phase

Following completion of mitigation there will be no significant negative residual impacts on the archaeological, architectural or the cultural heritage resource at operation phase. There will be a significant positive residual impact on the West Clare Railway and associated industrial heritage sites.

16.10 References

Bennett, I. (ed.) 1987–2010. *Excavations: Summary Accounts of Archaeological Excavations in Ireland*. Bray. Wordwell.

Byrne, F. J. 1973. *Irish Kings and High Kings*. Dublin. Four Courts Press.

Chartered Institute for Archaeologists 2023a. *Standards & Guidance for Field Evaluation*.

Chartered Institute for Archaeologists 2023b. *Standards & Guidance for Archaeological Excavation*.

Chartered Institute for Archaeologists 2023c. *Standards & Guidance for an Archaeological Watching Brief (Monitoring)*.

Department of Arts, Heritage, Gaeltacht and the Islands. 1999a. *Framework and Principles for the Protection of the Archaeological Heritage*. Dublin. Government Publications Office.

Department of Arts, Heritage, Gaeltacht and the Islands. 1999b. *Policy and Guidelines on Archaeological Excavation*. Dublin. Government Publications Office.

Dowd, M. Bonsall, J., Kahlert, T. Connolly, R. and Stimpson, C. 2021. 'Revisiting Alice and Gwendoline Cave, Co. Clare: new light on the 1902 excavations'. *Proceedings of the Royal Irish Academy: Archaeology, Culture, History and Literature*. Volume 121C, 1-53.

Clare County Development Plan (2023-2029).

Clare County Heritage Plan (2024-2030).

Clare County Council. 2006. *Feasibility Study of the West Clare Railway Line as a Walking and Recreational Route*. Architectural Conservation Professionals.

Environmental Protection Agency. 2017. *Draft Advice Notes on Current Practice (in the preparation of Environmental Impact Statements)*. Dublin. Government Publications Office.

Environmental Protection Agency. 2022. *Guidelines on the Information to be Contained in Environmental Impact Statements*. Dublin. Government Publications Office.

Grogan, E. & Condit, T. 2000. 'The Funerary Landscape of Clare in Space and Time', in O'Murchadha, C. (ed.) *County Clare studies : essays in memory of Gerald O'Connell, Seán Ó*

Murchadha, Thomas Coffey and Pat Flynn (Ennis: Clare Archaeological and Historical Society / Cumann Seandálaíochta Agus Staire an Chláir, 2000) Pp.9-29

Harris, C. 1983. *Illustrated Dictionary of Historic Architecture*. New York. Dover Books.

Hawkes, A. 2018. *The Archaeology of Prehistoric Burnt Mounds in Ireland*. Oxford. Archaeopress.

Joyce, P.W., 1870. *Irish Local Names Explained*. Gill and Son, Dublin.

Lewis, S. 1837. *Topographical Dictionary of Ireland* (online edition).

Lynch, M. and Nugent, P. (eds). 2008. *Clare: History and Society*. Dublin. Geography Publications.

MacCotter, P. 2008. *Medieval Ireland: Territorial, Political and Economic Divisions*. Dublin. Four Courts Press.

McErlean, T. 1983. 'The Irish Townland System of Landscape Organisation'. In T. Reeves-Smity and F. Hammond (eds), *Landscape Archaeology in Ireland*, 315-339. U.K. British Archaeological Reports.

Miles, J. 2021. 'Spanish Armada Wrecks on the Irish Coast.' *History Ireland*. Volume 29 (5), 16-19.

National Monuments Service, Department of Housing, Local Government and Heritage. Sites and Monuments Record, County Clare.

National Museum of Ireland. Topographical Files, County Clare.

NIAH Handbook 2024

O' Murchadha, c. 1992. 'The Dál gCais and the territory of Tumhumhian (Thomond)' in Spellissy (ed.) *The Royal O'Briens- A Tribute*, 14-92. O' Brien Clan Association Co. Clare.

O' Reilly, B. 2011. 'Hearth and home: the vernacular house in Ireland from c. 1800' *Proceedings of the Royal Irish Academy: Archaeology, Celtic Studies, History, Linguistics, Literature*. Volume 111C, 193-215.

O' Riain, P. 2011. *A Dictionary of Irish Saints*. Dublin. Four Courts Press.

O'Sullivan, A., 2001. *Foragers, Farmers & Fishers in a Coastal Landscape: An Intertidal Archaeological Survey of the Shannon Estuary*. Dublin, Royal Irish Academy.

O'Sullivan, A., McCormick, F., Kerr, T.R., Harney, L. 2014. *Early Medieval Ireland, AD 400-1100: The Evidence from Archaeological Excavations*. Dublin. Royal Irish Academy.

Scanlan, S. 2009. *Vandeluers of Kilrush*. Co. Clare. Ireland.

Stout, M. 1997. *The Irish Ringfort*. Dublin. Four Courts Press.

Stout, G. and Stout, M. 1997. *Early Landscapes: from Prehistory to Plantation*. In F.H.A. Aalen et al. (eds), *Atlas of the Irish Rural Landscape*. Cork. Cork University Press.

Waddell, J. 2022. *The Prehistoric Archaeology of Ireland* (New Edition). Dublin. Wordwell.

Warren, G. 2022. *Hunter-Gatherer Ireland: Making Connections in an Island World*. Oxford. Oxbow Books.

Westropp, T. J. 1890. 'The Normans in Thomond. Part I 1275-1287'. *The Journal of the Royal Society of Antiquaries of Ireland*. Vol. 1(4), 284-293.

Woodman, P.C., Monaghan, N., McCarthy, M. 1997. 'The Irish Quaternary Fauna Project', *Quaternary Science Reviews*. 16: 129-159.

16.10.1 Cartographic Sources

William Petty The Down Survey Map of the Barony of Moyarta, 1659

Taylor and Skinner - Road Maps of Ireland 1777

Henry Peltam's The County of Clare in the Province of Munster and the Kingdom of Ireland, surveyed and drawn by Order of the Grand Jury, 1787

A New and Exact Hydrographical Survey of the River Shannon from Limerick to the Sea, 1808

Ordnance Survey maps of County Clare, 1843, 1898.

16.10.2 Electronic Sources

www.excavations.ie – Summary of archaeological excavation from 1970–2025.

www.archaeology.ie – DoH/HLGH website listing all SMR/RMP sites.

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

www.geohive.ie – GeoHive is the State's Geospatial Data Hub, enabling search, view and access to the key authoritative geospatial information via interactive maps, data catalogues and geospatial applications (including National Townland and Historical Map Viewer and Aerial imagery 1995, 2000, 2005 and 2013).

www.dcenr.maps.arcgis.com – Geological Survey Open Topographic Viewer, including LIDAR data.

www.googleearth.com – Satellite imagery (2005–2025).

www.booksulster.com/library/plnm/placenamesC.php - Contains the text from Irish Local Names Explained by P.W Joyce (1870).

www.buildingsofireland.ie – Website listing the results of the NIAH building and garden survey for County Clare

www.clarelibrary.ie – information on the West Clare Railway

www.logainm.ie – Placenames Database of Ireland, developed by Fiontar (DCU) and The Placenames Branch (DoTCAGSM).

www.duchas.ie – The National Folklore Collection, including The School's Collection

www.kdhs.ie - Kilrush & District Historical Society

www.kilkee.clareheritage.org - Kilkee Heritage Past and Present

www.claremuseum.ie – Clare County Museum