



ENVIRONMENTAL BALANCE IN DESIGN AND CONSTRUCTION

## KERRY COUNTY COUNCIL

# ENVIRONMENTAL IMPACT ASSESSMENT REPORT / ENVIRONMENTAL IMPACT STATEMENT FOR THE SOUTH KERRY GREENWAY, CO. KERRY

## VOLUME 2 – MAIN EIAR/EIS

## CHAPTER 15 – ARCHAEOLOGY, ARCHITECTURAL AND CULTURAL HERITAGE

AUGUST 2018





# TABLE OF CONTENTS

## Page

<b>15</b>	<b>ARCHAEOLOGY, ARCHITECTURAL AND CULTURAL HERITAGE .....</b>	<b>1</b>
15.1	INTRODUCTION.....	1
15.2	METHODOLOGY.....	1
15.2.1	<i>Desktop Survey</i> .....	1
15.2.2	<i>Field Survey</i> .....	2
15.3	EXISTING ENVIRONMENT.....	2
15.3.1	<i>Introduction</i> .....	2
15.3.2	<i>Legal and Planning Context</i> .....	2
15.3.3	<i>Desktop Study</i> .....	7
15.3.4	<i>Field Survey</i> .....	21
15.4	IMPACTS.....	24
15.4.1	<i>Summary of proposed works</i> .....	24
15.4.2	<i>Architectural Heritage Impacts</i> .....	25
15.4.3	<i>Archaeology</i> .....	26
15.4.4	<i>Do Nothing Scenario</i> .....	27
15.4.5	<i>Cumulative Impacts</i> .....	27
15.5	MITIGATION .....	27
15.6	RESIDUAL IMPACTS.....	28
15.7	PROJECT REFERENCES.....	28

## LIST OF FIGURES

### Page

FIGURE 15.1:	LOCATION OF CAHERSIVEEN ACA (MAP SOURCED FROM LOCAL AREA PLAN 2013).....	6
FIGURE 15.2:	EXTRACT FROM LAMBETH PALACE/CAREW 1598 SURVEY .....	10
FIGURE 15.3:	DOWN SURVEY MAP OF IVERAGH BARONY MAP OF 1641 .....	11
FIGURE 15.4:	NIMMO'S 1811 BOG SURVEY MAP .....	11
FIGURE 15.5:	25 INCH OS MAP OF VALENCIA HARBOUR STATION .....	15
FIGURE 15.6:	VALENCIA HARBOUR STATION IN LATE 19 <sup>TH</sup> /EARLY 20 <sup>TH</sup> CENTURY (SOURCE: LAWRENCE COLLECTION, NLI) .....	15
FIGURE 15.7:	VALENCIA HARBOUR STATION IN 1960 (SOURCE: NLI).....	16
FIGURE 15.8:	25 INCH OS MAP OF CAHERSIVEEN STATION.....	16
FIGURE 15.9:	CAHERSIVEEN STATION FROM EAST (SOURCE: LAWRENCE COLLECTION, NLI) .....	17
FIGURE 15.10:	25 INCH OS MAP OF VALENCIA RIVER VIADUCT .....	17
FIGURE 15.11:	TRAIN APPROACHING VALENTIA VIADUCT FROM WEST (SOURCE: LAWRENCE COLLECTION NLI).....	18
FIGURE 15.12:	25 INCH OS MAP OF KELLS STATION .....	18
FIGURE 15.13:	25 INCH OS MAP OF DRUNG HILL TUNNELS WITH RETAINING SHED AT EAST.....	19
FIGURE 15.14:	VIEW OF ENTRANCE TO DRUNG HILL TUNNEL (SOURCE: LAWRENCE COLLECTION, NLI) .....	19
FIGURE 15.15:	25 INCH OS MAP OF MOUNTAIN STAGE STATION.....	20
FIGURE 15.16:	VIEW OF TRAIN APPROACHING DRUNG HILL FROM NORTH (SOURCE: LAWRENCE COLLECTION NLI) .....	20

## LIST OF TABLES

TABLE 15.1:	RECORDED ARCHAEOLOGICAL SITES WITHIN STUDY AREA .....	3
TABLE 15.2:	RPS AND NIAH STRUCTURES WITHIN THE STUDY AREA .....	5
TABLE 15.3:	ARCHAEOLOGY SITES WITH NOTIFICATION ZONES EXTENDING INTO THE SCHEME AREA .....	26

## 15 ARCHAEOLOGY, ARCHITECTURAL AND CULTURAL HERITAGE

### 15.1 Introduction

This chapter assesses the potential impacts of the proposed South Kerry Greenway Scheme on the cultural heritage resource. For the purposes of this assessment the term 'cultural heritage' is used to encompass the archaeological and architectural heritage resources as well as local place names, folklore and traditions.

The route of the proposed scheme is largely defined by the line of the former late 19<sup>th</sup>-century railway with localised diversions in areas redeveloped during the 20<sup>th</sup> century, generally around modern dwelling houses built on the former line. The trackway was systematically removed after the route went out of use in the 1960s, but the former line and many ancillary features still survives as a landscape feature within the study area. Proposed works will typically entail the creation of new cycle surfaces on the former line, the removal of overgrowth, improvement of drains and the creation of new localised sections around modern structures. The study area for this assessment comprised a 100m wide corridor of land centred on the line of the proposed greenway route.

The chapter identifies the recorded and potential elements of the cultural heritage resource within the study area, assesses the nature of impacts and then recommends appropriate mitigation measures.

### 15.2 Methodology

#### 15.2.1 Desktop Survey

The assessment presents the results of a desktop study of relevant published sources and datasets undertaken in order to identify all recorded and potential archaeological, architectural and other cultural heritage sites/features/areas within the study area. The principal sources reviewed for the assessment of the recorded archaeological resource were the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP) as well as *The Iveragh Peninsula: An Archaeological Survey of South Kerry* (O'Sullivan and Sheehan 1996) and other published sources. The Record of Protected Structures (RPS) and the National Inventory of Architectural Heritage (NIAH) were consulted for assessing the known architectural heritage resource. Details on the legal and planning frameworks designed to protect these elements of the cultural heritage resource also provided.

Other sources consulted as part of the assessment included the following:

#### *Architectural Heritage Impact Assessment Report for Proposed South Kerry Greenway*

This comprises a Kerry County Council assessment of proposed works to the railway viaducts at Gleensk and Valentia River to be undertaken as part of the scheme which was compiled by the Council Conservation Officer.

#### *Development Plans*

The County Kerry Development Plan (2015) and the Cahersiveen, Waterville and Sneem Functional Areas Local Area Plan (2013 – 2019) were consulted as part of this assessment. These publications outline the Council's policies for the conservation of the archaeological and architectural heritage resource and include the Record of Protected Structures (RPS) as well as designated Architectural Conservation Areas (ACA) and Archaeological Landscapes within the county.

#### *Database of Irish Excavation Reports*

The Database of Irish Excavation Reports contains summary accounts of all archaeological excavations carried out in Ireland (North and South) from 1970 to 2017.

#### *Literary Sources*

Various published literary sources were consulted in order to assess the archaeological, historical, architectural heritage and folklore record of the study area and these are listed in Section 15.7 of this chapter.

### *Historic Maps and Photographs*

The detail on historic cartographic sources can indicate the presence of past settlement patterns, including features of archaeological and architectural heritage significance that no longer have any surface expression. Historic photographs of the railway during its period of use in the late 19th and 20th centuries were also consulted. Annotated extracts from the historic maps and photographs consulted as part of the assessment are presented in Section 15.3.3.

### *Aerial imagery*

A review of available aerial photography of the study area was undertaken in order to ascertain if any traces of unrecorded archaeological sites were visible.

## 15.2.2 Field Survey

Accessible sections of the route of the proposed scheme were inspected in January 2018. The results are presented within the chapter while extracts from the photographic record compiled during the survey are provided in Appendix 15.1.

## **15.3 Existing Environment**

### 15.3.1 Introduction

The study area for this assessment comprised a 100m wide corridor centred on the proposed scheme. In general terms the former railway line followed the lower contours of the rocky upland areas in the east end of the study area and then dropped down into a low-lying area of improved farmlands extending westwards from Kells to Cahersiveen. The low-lying lands along the northern edge of the peninsula have been classified as being of wide use capability while the uplands have been described as extremely limited with small fringe farming forming the main agricultural activity (Aalen et al 2011, 18). The majority of the study area is sparsely settled and dispersed 19th and 20th century rural dwellings and farmyards form the majority of the building stock within the environs of the scheme, with buildings of the latter century most prevalent. Cahersiveen is the only town on the line of the scheme and the proposed route diverges from the former railway line on the western edge of this settlement and follows the existing streets until re-joining the line in the area to the southwest of the Valentia River Viaduct. Further details on the physical layout of the study area are presented in the description of the results of the field inspection (Section 15.3.4).

The following sections present summaries of the legal and planning frameworks designed to protect the cultural heritage resource as well as details on the recorded and protected archaeological and architectural heritage resource within the study area. A review of the archaeological and historical context of the study area is then provided.

### 15.3.2 Legal and Planning Context

Cultural heritage can be loosely divided into the archaeological resource covering sites and monuments from the prehistoric period until the post-medieval period and the architectural heritage resource, encompassing standing structures and sites of cultural importance dating from the post-medieval and modern period. In addition, local place names, folklore and traditions are considered part of cultural heritage. The management and protection of cultural heritage in Ireland is achieved through a framework of international conventions and national laws and policies. This framework was established in accordance with the provisions of the 'European Convention on the Protection of the Archaeological Heritage' (the Valletta Convention) and the 'European Convention on the Protection of Architectural Heritage' (Grenada Convention). Both of these conventions were ratified by the Republic of Ireland in 1997. The relevant legislation and guidelines that are relevant to this assessment include the following:

- National Monuments Act 1930 (and amendments in 1954, 1987, 1994 and 2004);
- Heritage Act (1995);
- National Cultural Institutions Act (1997);

- The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous) Provisions Act (1999);
- Planning and Development Act (2000);
- TII Guidelines for the Assessment of Archaeological Impacts of National Road Schemes (2005)
- TII Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes (2005)
- Dept. of Arts, Heritage and Gaeltacht Architectural Heritage Protection: Guidelines for Planning Authorities (2011).
- Framework and Principles for the Protection of Archaeological Heritage (Department of Arts, Heritage, Gaeltacht and the Islands (1999);

### 15.3.2.1 Relevant Archaeological Legislation and Planning Policies

The National Monuments Acts 1930 to 2004, the Heritage Act 1995 and relevant provisions of the National Cultural Institutions Act 1997 are the primary means of ensuring the satisfactory protection of archaeological remains, which are deemed to include all man-made structures, of whatever form or date, except buildings habitually used for ecclesiastical purposes. There are a number of mechanisms under the National Monuments Acts that are applied to secure the protection of archaeological monuments. These include the designation of National Monument status, the Register of Historic Monuments, the Record of Monuments and Places (formerly the Sites and Monuments Record), and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

A National Monument is described as ‘a monument or the remains of a monument, the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto’ (Section 2, National Monument Act, 1930). There are no National Monuments within State Ownership or Guardianship located within the study area.

There are no archaeological monuments subject to Preservation Orders within the study area. One example has been added to the Register of Historic Monuments and this comprises a potential church site (KE079-142----) in Cahersiveen town, approx. 50m north from the proposed route.

The Record of Monuments and Places (RMP) was established under Section 12 (1) of the National Monuments (Amendment) Act, 1994 and was based on the Sites and Monuments Record (SMR). These comprise lists and maps of all known archaeological monuments and places for each county in the State. All archaeological sites listed in the RMP receive statutory protection under the National Monuments Act 1994 and no works can be undertaken at their locations, including a surrounding Zone of Notification, without providing two months advance notice to the National Monuments Service (NMS).

There are nineteen recorded archaeological sites located within the study area and seven of these comprise individual features located within the same ecclesiastical enclosure (KE079-035001-) situated in the townland of Garranebane on the western outskirts of Cahersiveen. None of the recorded sites within the study area are situated on the footprint of the proposed scheme, although four examples are located within 15m of the route (Table 15.1).

**Table 15.1: Recorded archaeological sites within study area**

SMR No.	Class	Townland	ITM E	ITM N	Distance from scheme
KE063-007----	Holy well	CURRA	466097	590203	20m to SE
KE063-008----	Children's burial ground	CURRA	466352	590359	40m to SE
KE063-008001-	Cross-slab	CURRA	466356	590368	40m to SE
KE063-013----	Rock art	COOLNAHARRAGILL UPPER	462540	589019	15m to South
KE062-003----	Standing stone	GLEENSK	457421	588859	50m to north

SMR No.	Class	Townland	ITM E	ITM N	Distance from scheme
KE070-004----	Enclosure	KNOCKANEYOULOO	456132	586220	10m to east
KE070-004001-	Souterrain	KNOCKANEYOULOO	456132	586220	10m to east
KE079-035----	Cross	GARRANEANE	446185	579450	50m to north
KE079-035001-	Ecclesiastical enclosure	GARRANEANE	446175	579459	50m to north
KE079-035002-	Graveyard	GARRANEANE	446175	579459	50m to north
KE079-035003-	Leacht	GARRANEANE	446185	579450	50m to north
KE079-035005-	Hut site	GARRANEANE	446180	579454	50m to north
KE079-035006-	Hut site	GARRANEANE	446176	579455	50m to north
KE079-035007-	Children's burial ground	GARRANEANE	446187	579454	50m to north
KE079-046----	Cashel	CAHERSIVEEN	447262	579937	50m to south
KE079-046001-	Souterrain	CAHERSIVEEN	447260	579943	50m to south
KE079-046002-	Souterrain	CAHERSIVEEN	447266	579931	50m to south
KE079-038----	Holy well	CAHERSIVEEN	446815	579359	30m to south
KE079-142----	Church	CAHERSIVEEN	446875	579490	50m to north

The County Kerry Development Plan (2015) outlines a wide range of policies and objectives in relation to the protection of the archaeological resource within the county. The relevant archaeological objectives within the County Development Plan include:

**H-25** Protect and preserve the underwater archaeological heritage of the County. In assessing proposals for development, the Council will take account of the rivers, lakes, intertidal and sub-tidal environments.

**H-26** Secure the preservation of all sites, features and objects of archaeological interest within the County. In securing such preservation the Council will have regard to the advice and recommendations of the National Monuments Service, Department of Arts Heritage & the Gaeltacht, the National Museum of Ireland and the County Archaeologist.

**H-28** Ensure the protection and preservation of archaeological monuments and features, as yet not listed in the Record of Monuments & Places (RMP), Sites & Monuments Record (SMR) and as yet unrecorded, through ongoing review of the archaeological potential of the Plan area. In securing such protection the Council will have regard to the advice and recommendations of The National Monuments Service, Department of Arts, Heritage & the Gaeltacht and the County Archaeologist.

The Cahersiveen, Waterville & Sneem Functional Areas Local Area Plan (LAP) 2013 – 2019 also outlines a number of objectives to ensure the protection of the archaeological resource within the town and these comprise:

**AH-1** Ensure the preservation of all archaeological monuments in the plan area as included in the Record of Monuments and Places.

**AH-2** Have regard to the recommendations of The Heritage Service, the National Museum of Ireland and other statutory agencies in the carrying out of local authority development control functions.

**AH-3** Have regard to the advice and recommendations of the County Archaeologist in respect of monuments and features not currently listed in the Record of Monuments and Places.

**AH-4** Ensure that any proposed development within the lands highlighted as representing the zone of archaeological potential around a monument listed in the Record of Monuments and Places (RMP) is referred to the National Monuments Section of the Department of Arts, Heritage and the Gaeltacht.

*Such developments will be the subject of archaeological impact assessment and may require further subsequent archaeological mitigation – buffer zones/exclusion zones, monitoring, predevelopment archaeological testing, and archaeological excavation prior to a decision being made.*

### 15.3.2.2 Relevant Architectural Heritage Legislation and Planning Policies

Protection of architectural or built heritage is provided for through a range of legal instruments that include the Heritage Act 1995, the Architectural Heritage (National Inventory) and National Monuments (Misc. Provisions) Act 1999, and the Planning and Development Act 2000. Section 2.1 of the Heritage Act 1995, describes architectural heritage as follows:

*All structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents, and, without prejudice to the generality of the foregoing, includes railways and related buildings and structures and any place comprising the remains or traces of any such railway, building or structure.*

The Planning and Development Act 2000 requires all Planning Authorities to keep a ‘Record of Protected Structures’ (RPS) of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. As of the 1st January 2000, all structures listed for protection in current Development Plans, have become ‘protected structures’. Since the introduction of this legislation, planning permission is required for any works to a protected structure that would affect its character. The Council has listed a range of buildings and bridges within the study area as Protected Structures and the majority of these comprise buildings within Cahersiveen town (Table 15.2). The Valentia River and Gleensk viaducts are the only railway features within the study area listed as Protected Structures.

The Architectural Heritage Act 1999 established the National Inventory of Architectural Heritage (NIAH) to create a record of built heritage structures within the State. While inclusion in a NIAH inventory does not provide statutory protection to a structure, the inventory is used to advise local authorities on compilation of their Records of Protected Structures. The NIAH has included a range of structures within the study area and the majority of these comprise buildings within Cahersiveen town (Table 15.2). The Valentia River and Gleensk viaducts are the only railway features within the study area included in the NIAH. The following table lists the buildings designated as Protected Structures in the County Development Plan (2015) and the Cahersiveen, Waterville & Sneem LAP (2013) as well as the various structures included in the NIAH (note: the Cahersiveen LAP has assigned the NIAH reference numbers to a number of the buildings in the town that it designates as Protected Structures):

**Table 15.2: RPS and NIAH structures within the study area**

RPS	NIAH	Structure
KY-079-101	No	The Round Tower, Church Street, Cahersiveen
KY-079-102	No	Townhouse, Old Market St., Cahersiveen
KY-079-104	No	Townhouse, Old Market St., Cahersiveen
KY-079-105	No	The Provincial Stores, Main Street, Cahersiveen
KY-079-106	No	Credit Union, Main St., / O’Connell St. Cahersiveen
KY079-107	No	O Connors Pharmacy, Church St, Cahersiveen
KY079-108	No	Town house, O Connell St, Cahersiveen
KY079-109	No	Stone Structure, off Old Market St. Cahersiveen
KY079-110	No	Former Convent, O Connell St. Cahersiveen

RPS	NIAH	Structure
KY079-111	No	Bank of Ireland, Main St. Cahersiveen
KY-079-112	No	Court House, Market Street. Cahersiveen
KY079-114	No	Detached house, Valentia Road, Cahersiveen
KY-079-115	No	Meteorological Observatory, Cahersiveen
21400901	21400901	The Old Barracks, Cahersiveen
21400602	21400602	Former Library, Main St. Cahersiveen
21400903	21400903	O’Connell Memorial Church, Church St. Cahersiveen
21400904	21400904	Art Gallery, Old Oratory, West Main St. Cahersiveen
No entry	21400906	Keatings/The Central Corner Bar, Cahersiveen
21400907	21400907	McCrohan, Main Street. Cahersiveen
21400908	21400908	An Tig Gaelach, Main Street. Cahersiveen
No entry	21400909	Murphy’s, Cahersiveen
21400910	21400910	Valencia River Viaduct, Cahersiveen
21306202	21306202	Gleensk Viaduct, Gleensk
21306201	21306201	O’Connell Bridge, Gleensk

The Planning and Development Act 2000 also provides planning authorities the statutory power to define Architectural Conservation Areas (ACA), which are defined as areas of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. The Cahersiveen, Waterville and Sneem Functional Areas Local Area Plan (LAP) 2013-19 has designated an ACA within Cahersiveen town (Figure 15.1).



Figure 15.1: Location of Cahersiveen ACA (map sourced from Local Area Plan 2013).

The County Kerry Development Plan (2015) outlines a range of policies and objectives in relation to the protection of the architectural heritage resource within the county and includes the following:

**H-34** *Protect the architectural heritage and promote conservation-led regeneration and re-use of buildings, where appropriate.*

**H-45** *Encourage the protection, appreciation, retention and appropriate renovation of vernacular buildings throughout the County.*

The Cahersiveen, Waterville & Sneem Functional Areas Local Area Plan (LAP) 2013 – 2019 presents the following objectives for the architectural heritage resource within the town:

**TM-7** *Facilitate the upgrading of the Valentia River railway viaduct in a sustainable manner for amenity and pedestrian use.*

**BH-1** *Designate and preserve those areas indicated on the Map 3b as an Architectural Conservation Area (ACA) in accordance with the provisions of the Planning and Development Acts 2000.*

**BH-2** *Preserve the town's architectural heritage and encourage development that is designed in a manner that is in keeping with the scale, character and pattern of the existing built fabric and urban form. New developments must be designed to a high architectural standard and must take cognisance of local design features and materials.*

### 15.3.3 Desktop Study

The following section presents summary details of the main periods within the Irish archaeological record with references to associated monuments located within the study area. The dating framework used for each period is based on Guidelines for Authors of Reports on Archaeological Excavations as published by the National Monuments Service. The published inventory entries of all recorded archaeological sites within the study area are presented in Appendix 15.2 while the inventory entries for the NIAH structures are provided in Appendix 15.3.

#### *Prehistoric Periods*

While there are no recorded Mesolithic (c. 7000–4000 BC) sites on the Iveragh Peninsula it has been noted that, given the discovery of sites of that period on the neighbouring Dingle peninsula, it is probable that Iveragh was also settled at that time (Connolly 2009, 98). The recent discovery of a stray, possible Mesolithic bann flake on Ross Island supports this hypothesis (Gibbons et al 2007). There is some evidence for the presence of Neolithic (c. 4000–2400 BC) settlement on the peninsula, including the discovery of stray artefacts as well as palaeoecological evidence identified on Valentia Island which demonstrated the presence of Neolithic farmers on the west coastline (Mitchell 1989). Iveragh also has the greatest concentration of prehistoric rock-art, which comprises carved motifs on boulders and rock outcrops, in Ireland. While the exact origins of these monuments are unclear they do indicate extensive prehistoric ritual activity on the peninsula. There is one example located within the study area, in Coolnaharragill Upper townland (KE063-013----) at a distance of approx. 15m to the south of the proposed route where it is located within the garden of a modern house. In comparison to the earlier periods there is extensive evidence for Bronze Age (c. 2400–500 BC) activity on the peninsula which includes data from pollen analysis, pre-bog field systems, fulachta fiadh and ritual/funerary monuments such as wedge tombs, cist and boulder burials, standing stones and stone rows. The study area contains one standing stone (KE062-003----) located in Gleensk townland at a distance of approx. 50m from the proposed scheme. As with the rest of the country, there is a paucity of evidence for Iron Age (c. 500 BC–AD 400) activity on the peninsula although some monument types in the region may conceivably date to this period, such as promontory forts and ring-barrows. The general lack of evidence for prehistoric settlements sites on the peninsula may be attributed to a combination of the sub-surface nature of the remnants of the timber-built structures of these periods and the absence of large-scale developments that have resulted in the discovery of many prehistoric settlement sites elsewhere in the county (Connolly 2009).

### *The Medieval Periods*

The early medieval (c. 400–1169 AD) period in Ireland broadly commences with the arrival of Christianity to the island and the monuments of this period form the most prevalent element of the archaeological landscape on the Iveragh peninsula, which contains numerous examples of earthen ringforts and stone built cashels. Archaeological excavations have demonstrated that the majority of these sites were enclosed farmsteads built in the early medieval period which contain the foundations of domestic and agricultural buildings. While not forts in the military sense, the enclosures acted as a defence against natural predators, such as wolves, and may also have afforded some protection against the cattle raids that appear to have been a common event during this period. The enclosures often contain souterrains which comprise artificial underground structures typically comprising passage(s) extending to a chamber(s) from a surface entrance although isolated examples are also common feature of the landscape. It is conceivable that some apparently isolated souterrains are located within levelled ringforts and it has been noted that approx. 44% of Kerry ringforts shown on the historic OS maps now leave no surface traces (Edwards 1990, 11). The church enclosures dating to the early medieval period were of similar construction to the ringforts and cashels but can often be differentiated by the presence of associated ecclesiastical features such as later church buildings, burial grounds, cross-slabs as well as local traditions.

The study area contains one cashel site (KE079-046----) located on the outskirts of Cahersiveen at a distance of approx. 50m to the east of the proposed scheme. This site is now largely levelled and local tradition records that the stone from the enclosing wall was used during the construction of the railway viaduct and RIC barracks. The cashel is also recorded to have contained two souterrains marked as caves on historic OS maps. The study area also contains an enclosure site (KE070-004----), with a tradition of an associated souterrain, located 10m to the east of the route in Knockaneyouloo townland and fragmentary traces of surface stones may indicate that this site comprises the location of a levelled cashel. An isolated souterrain (KE079-036----) in Cahersiveen is located outside the study area at a distance of approx. 200m to the north of the route as it diverges from the former line within the town but is of note as it is recorded as being uncovered during the construction of the railway station in the late 19th century. The study area also contains an extant early ecclesiastical enclosure (KE079-035001-) located in Garranebane townland, on the western outskirts of Cahersiveen, at a distance of approx. 50m to the north of the proposed route. This site is enclosed by a partially surviving low boundary wall and contains visible surface traces of gravestones, conjoined stone huts, a stone platform feature known as a leacht and a roughly shaped stone cross. A modern graveyard in Curra townland, to the south of Glenbeigh village, contains an earlier children's burial ground (KE063-008----) and a cross-slab (KE063-008001-), both of which may indicate an association with early ecclesiastical activity at this location. The graveyard is located 40m to the southeast of the recorded location of these sites. Other evidence for potential early ecclesiastical activity within the study area comprises the presence of two holy wells. One example is located to the south of the Main Street in Cahersiveen town (KE079-038----) while the other (KE063-007----) comprises a heavily overgrown, stone-lined spring well located adjacent to the south side of the former railway line in Curra townland.

The arrival and conquest of large parts of Ireland by the Anglo-Normans in AD 1169 marks the advent of the late medieval period which continued until approx. AD 1550. This period saw the continuing expansion of Irish urbanisation as many of the major ports developed into international trading centres and numerous villages and towns developed as local or regional market centres. While there are no recorded monuments dating to this period within the study area, various historical and cartographic sources record the ownership of lands on the peninsula during these centuries. The proposed scheme is located within the Barony of Iveragh and extends through the Civil Parishes of Caher, Killinane and Glanbehy. Parishes comprise ecclesiastical administrative divisions originally introduced to Ireland in the 13th century and were adapted as the basis of civil divisions during 17th century land surveys. Baronies had been introduced to Iveragh by the end of the 16th century and it has been postulated, in an Irish context, that some of these Norman land divisions may reflect the layout of earlier tuath boundaries (Nolan 1982). The Iveragh Barony area formed part of the holdings of the Corca Duibhne dynasty during the early medieval period, with sept families such as the O'Sheas and O'Falvey's overseeing much of the area. However, by the time of the Anglo-Norman conquest the area had come into the ownership of two branches of the Desmonds, the O' Sullivan Mores and MacCarthy's (O' Sullivan and Sheehan 1996, 11). The Irish septs victory over the Anglo-Normans at the Battle of Callan near Kenmare in 1211 meant that south Kerry remained outside the conquered areas for the next three centuries (ibid, 12). This did not mean that Iveragh was outside the influence of the changing architectural styles of the late medieval period as demonstrated by the presence of tower-house castles on the peninsula built by the O'Sullivan Mores and MacCarthys as well as various ecclesiastical centres. There are no recorded late medieval archaeological sites located within the study area.

*Post-Medieval and Early Modern periods*

The centuries following 1550 AD are referred to as the post-medieval period, which is generally considered to continue until the development of the Industrial Revolution during the 18th century. The following centuries are referred to as the early modern period for the purposes of this assessment. The peninsula continued to form part of the holdings of the O'Sullivan Mores and MacCarthys until the 17th century. While the old Gaelic order in Munster was extensively upended during the Plantation period that followed the failure of the Desmond Rebellion in 1583, apart from a number of localised acquisitions the plantation had little impact on the Iveragh Peninsula (O'Sullivan and Sheehan 1996, 13). The decades after the Cromwellian Wars (1649–53) saw the decline of the formal Gaelic control of south Kerry and large areas of the Iveragh Peninsula were acquired by Sir William Petty, often paid for by the proceeds of his extensive survey of Ireland or, in some cases, in lieu of monetary payment. His Iveragh estate encountered frequent resistance from the old Gaelic families and historical accounts record that Petty often travelled through the area accompanied by armed guards. The estate became more secure for a period in the 1680s and various measures to encourage land improvement works were enacted, including the application of half-rates on lands reclaimed from the edges of mountainous areas. Petty's lands on the peninsula became part of the Landsdowne Estate during the 19th century which included a number of holdings within Iveragh Barony. While many of the Protected Structures and NIAH buildings located within the study area date to the 19th century, there is only one recorded archaeological site within the study area dating to recent centuries. This is a building in Cahersiveen town which has been recorded as originating as a chapel (KE079-142---), potentially of 18th century date, that was later reused as a market house. This structure is located 50m to the north of Main Street which forms a diverted section of the proposed route within the town.

The consulted historical records and cartographic sources have provided some information on the development of the study area during this period, including land use practices and settlement patterns. The following section, therefore, combines details from the relevantly limited historical record of the study area with the details presented on the various consulted maps, extracts of which are also presented: While the historic maps compiled in the centuries prior to the work of the Ordnance Survey (OS) during the 19th century are typically pictorial in nature and scale, and do not provide detailed information on the layout of dispersed rural settlements or field monuments, they often provide a general outline of major landscape features such as bays, islands, rivers and lakes as well as built features such as larger settlement centres, roads, fortifications and churches.



**Figure 15.2: Extract from Lambeth Palace/Carew 1598 survey**

The Lambeth Palace/Carew 1598 survey of south Kerry (Figure 15.2) was commissioned by Sir George Carew, President of Munster, and provides a glimpse into the layout of the Gaelic society in Iveragh at the end of the medieval period (Smyth 2009, 160). It provides details on the layout of the baronies in south Kerry and indicates the general outline of major natural landscape features and the location of larger settlements, big houses, fortifications and churches on the peninsula. The map provides a general, pictorial depiction of the upland areas, rivers and various enclosures, castles and churches along the north end of the peninsula.



**Figure 15.3: Down Survey map of Iveragh Barony map of 1641**

The Down Survey was compiled by William Petty between 1656-1658 (Figure 15.3) as part of the Cromwellian Plantation and demonstrates the fragmentation of the old Gaelic order on the Iveragh peninsula following the seizure of the O' Sullivan More and MacCarthy lands (*ibid*, 167). This map contains more accuracy and detail than shown on the earlier Carew map with broad land use designations employed, such as arable/pasture, plough lands, grazing and boggy pasture. The lands within the north end of Iveragh Barony are indicated as a mix of upland areas with pasture lands and large swathes of bog land in the low-lying areas.



**Figure 15.4: Nimmo's 1811 bog survey map**

The detail on the map compiled as part of Alexander Nimmo's 1811 survey of the Iveragh bogs (Figure 15.4) clearly shows the contrasting topography and drainage within the study area as well as the routes of proposed roads. It has been noted by Rynne (2009, 247) that the use of wheeled transport in Ireland was still rare in regions outside the main road network at the end of the 18<sup>th</sup> century. A large element of the dairy farming activity on Iveragh at that time was in butter production and much of the traffic from Iveragh at that time entailed the transfer of this produce to Cork by packhorses travelling along the 'butter roads' that led to the port. Nimmo's 1811 survey estimated that Iveragh accounted for approx. 10% of the produce arriving in the Cork Butter Market at that time and it has been estimated that a round trip from Iveragh to Cork by this method of transport took up to a full week (*ibid.*). Richard Griffith, one of the main civil engineers in the county during the early 19<sup>th</sup> century, described the west end of the peninsula as being almost inaccessible at that time (O' Lung 1976, 107). The roads constructed in County Kerry during the early decades of the 19<sup>th</sup> century were described by Griffith as typically comprising total land-takes measuring 36 ft. wide in good land and reduced to 24-26 ft. in areas where steep excavations were required (*ibid.*, 104). The roadway extending to Cahersiveen along the north end of the peninsula was completed by 1824 and the town rapidly developed over the following decades.

The following descriptions of the parishes within the study area were published in the *Topographical Dictionary of Ireland* (Lewis 1837) and the description of Glanbehy Parish, in the east end of the study area, provides a good description of living conditions as well as various land and road improvement works undertaken on the peninsula in the first half of the 19<sup>th</sup> century.

*CAHIR, a parish, in the barony of IVERAGH, containing, with the market and post-town of Cahirciveen, 5653 inhabitants. This parish is situated on the harbour of Valencia, on the south-western coast; and is intersected by the high road from Tralee to Valencia. It comprises 20,452 statute acres, of which about 7000 are arable, 6500 mountain pasture, 6932 waste land and bog, and about 20 acres woodland. The soil is in general light; and the system of agriculture, though still in a backward state, has improved considerably since the construction of the new line of road through this and the neighbouring parishes, and along the coast of Castlemaine bay, as projected by the late Mr. Nimmo about 20 years since, by the completion of which great benefit has been conferred upon a diatriet depending upon sea-weed and sea sand chiefly for manure. The prevailing rocks are of the slate formation, and slates of good quality have been quarried on Cahirciveen mountain, and used for roofing the houses in the town."*

*KILLINANE, a parish, in the barony of IVERAGH; 4 miles (N. E.) of Cahersiveen, on the road to Milltown; containing 3215 inhabitants. This parish is situated on the southern shore of Dingle bay, and is at the inner extremity of the harbour of Valencia: it comprises 23,120 statute acres, as applotted under the tithe act, of which 5030 consist of arable land, 7580 of mountain pasture, and the remainder (with the exception of about 40 acres of woodland) of rocky mountain, waste, & bog. Towards the sea are mountains, of great elevation, affording pasture during the summer months; the intervening valleys are coarse and rocky, with only a small proportion of the tillage. On one of the mountains is a remarkable prominence called "The Hag's Tooth", and on the north side of it are some small romantic lakes. The sea on the north-east forms several creeks, of which that of Kells affords shelter to small vessels. Near this place is a coast-guard station, being one of four included in the district of Valencia.*

*The parish is in the diocese of Ardfert and Aghadoe, and is a rectory, forming part of the union of Cahir; the tithes amount to £160.16. and there is a glebe of 61½ acres. In the R. C. divisions it is part of the district of Cahirciveen: there is a chapel at Tielmore. The ruins of the old church still remain in the burial-ground at Sreugany. "*

*GLENBEGH, or GLENBEHY, a parish, partly in the barony of IVERAGH, but chiefly in that of DUNKERRON, 13 miles (S. W.) from Milltown; containing 2449 inhabitants. This parish, which is situated on the southeastern shore of the bay of Dingle, derives its name from its deep seclusion and from the small river Birchen, or Begh...It comprises 25,686 statute acres, as applotted under the tithe act, of which nearly two-thirds are mountain pasture, bog, and rock; and forms an extremely wild and romantic glen surrounded by steep and rugged mountains on all sides except towards the sea, where it is enclosed by a range of low but steep hills, forming a sheltered vale, through which the river Begh pursues the whole of its impetuous course. The highest of the mountains are the Drung and Cahir-Canaway, over which the old road passed into the remoter parts of the baronies of Iveragh and Dunkerron, along a range of precipitous cliffs overhanging the bay. The situation is picturesque and romantic, but its aspect is wild and savage in the extreme; and previously to the commencement of the present improvements, the glen was the inaccessible and secure retreat of lawless violence and the abode of misery and destitution.*

*With the exception of a small detached portion, called the West Fraction, nearly the whole of the parish is the property of Lord Headley, who, in 1807, began a series of improvements, which, though gradual in their progress, have completely changed the appearance of the district and the moral and social habits of its population. The first step was the employment of the people, at his lordship's expense, in providing a facility of communication between the several farms on the estate; and many miles of good road were made, affording easy access to every part of this extensive district; a new line of mail coach road has been constructed, avoiding the steep and dangerous pass over the mountains, and preserving an easy level throughout the whole of this previously impenetrable and isolated part of the country. Since the formation of these roads, the old heavy hurdles or drags have been discontinued, and carts and wheel carriages have been brought into general use, by which great facilities have been afforded for procuring sea-sand as manure, which has greatly increased the fertility of the soil. The wretched huts, which scarcely afforded shelter to the labourers, have given place to neat and comfortable cottages, generally built of stone, most of them containing two rooms and a dairy, and several having two chambers with a dwelling-room and offices, and gardens enclosed and well planted; the old hovels have been converted into sheds for cows and pigs, and every requisite for domestic cleanliness and comfort has been provided. These houses have been erected on an economical plan, at the joint expense of his lordship and the tenants, who being regularly employed in profitable labour, derive from their industry not only the means of present support but a provision for old age. The enclosure, draining, and cultivation of wasteland on the mountains and bogs have been greatly promoted, by granting to the tenants stipulated allowances for those purposes. Plantations also have been made by his lordship with very great success, and more than 350 acres have been covered with thriving trees. A spacious chapel has been erected, at the joint expense of his lordship and the tenantry; and a school, in which some hundreds of children have been taught, is partly supported by his lordship. All these improvements were effected within little more than seven years, and the tenantry were in a prosperous and thriving condition, and paid their rents with punctuality till the great depression in the prices of produce in 1815 and 1816. In 1820 his lordship undertook the embankment of 650 acres of land from the sea, which was effected by the labour of the tenantry in liquidation of their arrears: this tract has been permanently secured by a sea wall of great strength, which effectually excludes the tide, and now produces excellent crops of potatoes, oats, and hay. In 1826 a survey of the whole estate was made and further improvements undertaken and carried into effect; 80 farms were laid out varying in extent from land sufficient for 10 to what is sufficient for 40 cows; the various houses were surveyed, and proportionate allowances granted for additions or new buildings; all the best lines of road completed, and the whole regulated upon a plan of mutual benefit to landlord and tenant, and operating powerfully to their reciprocal advantage.*

The 19<sup>th</sup>-century Ordnance Survey (OS) maps provide more detailed information than the earlier maps and typically identify the location of many archaeological field monuments as well as local place names, houses, farm yards, lime kilns, wells, field systems, townland boundaries, roads and bridges. The detail on the 6-inch map of 1840 demonstrates that the existing N70 had been constructed and shows the settlement pattern within the study area as comprising dispersed farms and extensive enclosed field systems. The vernacular houses of the period were typically single storey, rectangular buildings of drystone construction often incorporating bedrooms, kitchens and animal byres. The majority of the examples on the western peninsulas contained three rooms and the insertion of internal walls to separate the byre-ends was a relatively late development in County Kerry (Aalen *et al* 2011, 217). The roofs were typically thatched with rushes and marram grass the main material used in the mountainous western regions and older houses often contained a wall alcove that may have been formed an intra-mural wall cavity near a fireplace (*ibid*). The associated outbuildings may have been built of mud or turf and the settlements and fields were often enclosed with drystone walling and earthen banks.

#### *Excavations Database*

The Excavations Database contains three entries for archaeological investigations undertaken within townlands in the study area. Test trenching of a modern housing development in Garranebane townland, on the western outskirts of Cahersiveen, uncovered nothing of archaeological significance (Annette Quinn; Licence 07E0097). Archaeological investigations were undertaken as part of the development of a VEC college within the same townland. These investigations were carried out at the recorded location of a levelled ringfort and children's burial ground (KE079-040----) located approx. 400m south of the proposed route. The site was found to have been much disturbed but traces of the ringfort ditch were uncovered (Lar Dunne; Licence 98E0522). Advance test trenching at single house development at Drom West, Glenbeigh in the vicinity of an enclosure (KY063-016----), which is located approx. 100m north of the proposed route, and nothing of archaeological significance was identified (Niamh O'Callaghan; Licence 04E0339).

*The Great Southern and Western Railway Line*

The first proposals for the extension of the railway network along the north end of Iveragh in the 1820s were driven by a perceived need to establish a connection to a proposed transatlantic port at Valentia Harbour rather than developing a public transport hub through the sparsely populated peninsula. The initial impetus for both the harbour and the railway faltered following the emergence of Queenstown (Cobh) in County Cork as the main transatlantic port combined with the Irish Rail Commission's lack of enthusiasm for opening a likely unprofitable service within an area of low population (Rynne 2009). Further attempts were made in the 1840's to raise private capital for the enterprise and an engineer named James Walker was employed to undertake preliminary survey work. Despite an 1847 Act of Parliament in support of a proposed rail connection between Killarney and Valentia no works were undertaken and the development of the Iveragh railway line instead progressed incrementally during the late 19<sup>th</sup> century.

An 1871 Act of Parliament for the creation of a 12 mile line between Killorglin and Farranfore eventually saw the opening of this broad gauge (5ft 3") section in 1885 by the Great Southern and Western Railway (GSWR). In 1888 the Allport Commission again proposed the extension of the line to Valentia Harbour and the British Government agreed to provide funding for GSWR to undertake its construction. The works on the line commenced in 1890 and saw the construction of a 16 mile section through some of the most challenging terrain in Ireland. The section to the south of Glenbeigh comprised a 3 mile upslope climb at steep gradients and thereafter the line extended for 6 miles along the rocky terraces of Drung Hill as it continued to Kells. This 'Mountain Stage' section required engineering solutions to localised terrain features such as a section of tunnels and the construction of a viaduct over the steep River Gleensk valley. This structure, which was designed by A.D. Price and constructed by T.K. Falkiner, comprises steel girder viaduct on a slightly curved line over eleven sandstone pylons. It measures approx. 200m in length with a 4m wide carriageway.

The line descended downwards beyond Kells Station and then continued in a broadly south-westerly direction through a low plain before crossing into the 19<sup>th</sup> century market town of Cahersiveen via the Valentia Viaduct. The 282m long viaduct comprises a seven-span iron lattice girder structure on cast-iron circular piers with pairs of box girders on limestone piers. The line continued along the southern shoreline of Valentia Harbour beyond Cahersiveen until it reached its terminus at Reenard Point. A number of stations and platform stops were constructed along the line. The main station at Cahersiveen and the terminus at Reenard had side tracks, stores and warehouses while the more modest stops at the Mountain Stage and Kells comprised small platforms and ancillary structures. Despite the challenging terrain along the upland sections of the route the construction works were completed within three years and the line was opened in 1893. As occurred with many of the Irish railway lines off the main network and away from large population centres the section of line between Glenbeigh and Valentia became increasingly unviable as the 20<sup>th</sup> century progressed due to rural depopulation and regular periods of economic downturn. In 1958 the government gave CIE permission to start closing loss-making lines and the decision to close the Iveragh section was made shortly thereafter. The last train journey on the line occurred in 1960 and by 1962 the track had been systematically removed.

The railway line was in use during the advent of the expanding use of cameras by private enthusiasts during the late 19<sup>th</sup> century and its construction had just been completed prior to the commencement of survey work for the 25-inch OS mapping of the peninsula in 1894-5. The following section presents extracts from the 25-inch OS maps depicting some of the main railway features as well as a number of late 19<sup>th</sup> and 20<sup>th</sup> century photographs of the railway line and stations.



Figure 15.5: 25 inch OS map of Valencia Harbour Station



Figure 15.6: Valencia Harbour Station in late 19<sup>th</sup>/early 20<sup>th</sup> century (source: Lawrence Collection, NLI)



Figure 15.7: Valencia Harbour Station in 1960 (source: NLI)

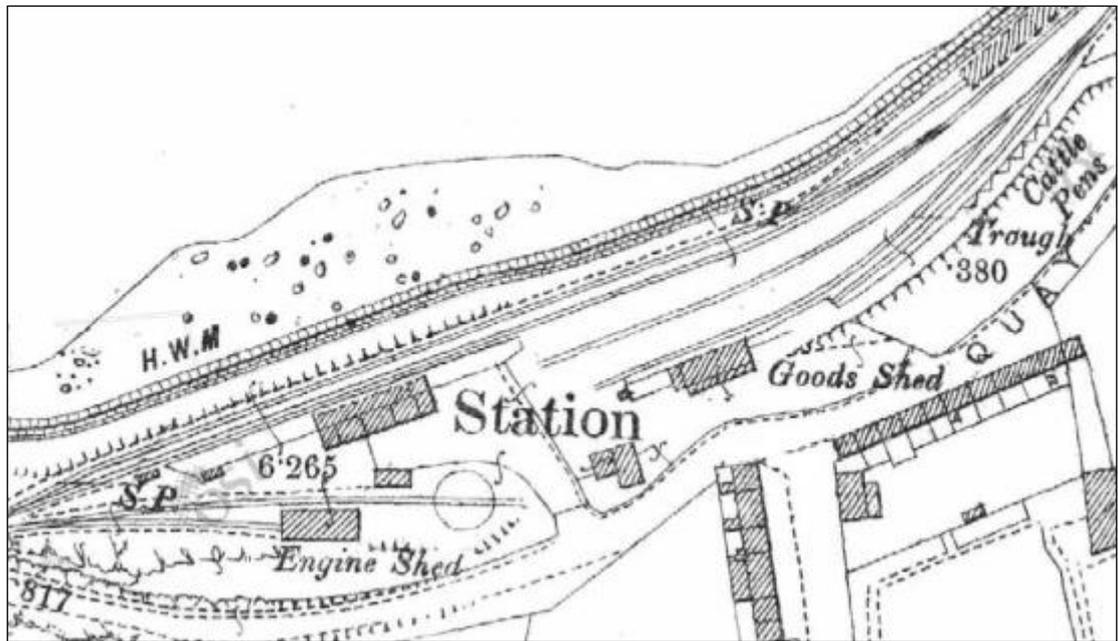


Figure 15.8: 25 inch OS map of Cahersiveen Station



Figure 15.9: Cahersiveen Station from east (source: Lawrence Collection, NLI)

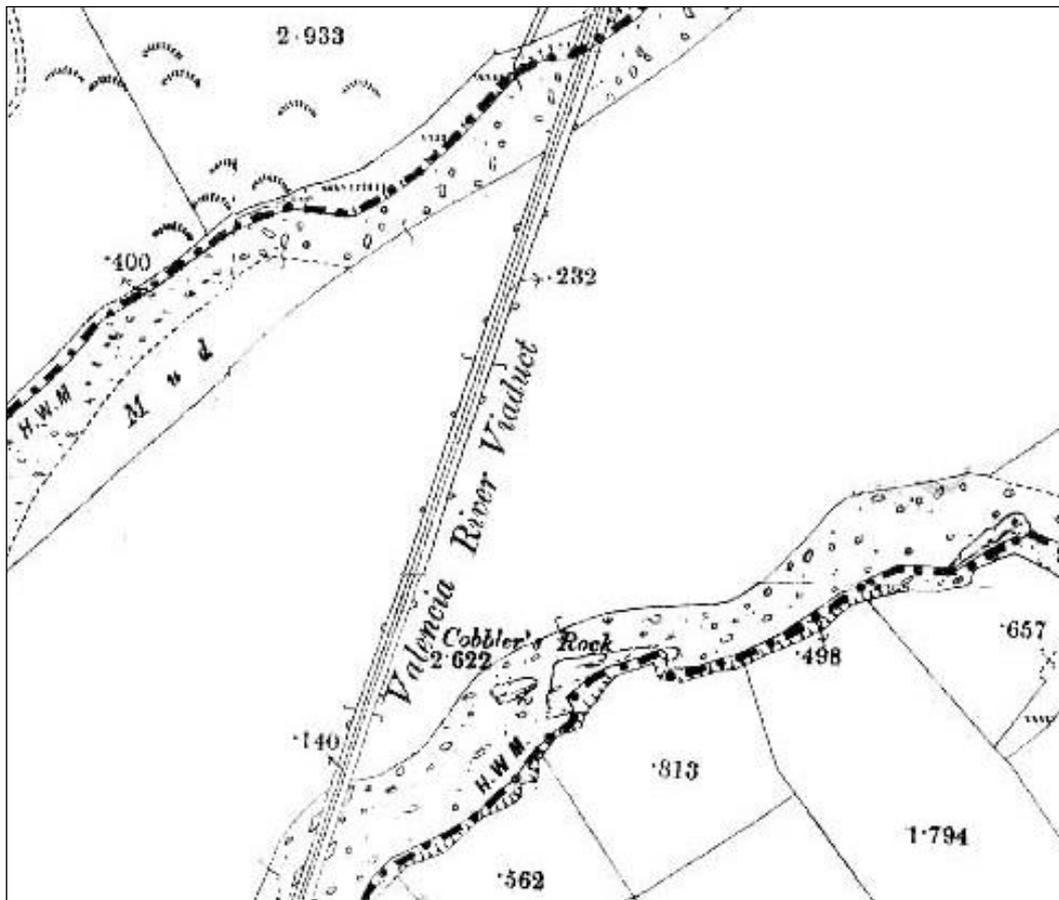


Figure 15.10: 25 inch OS map of Valencia River Viaduct



Figure 15.11: Train approaching Valentia Viaduct from west (source: Lawrence Collection NLI)

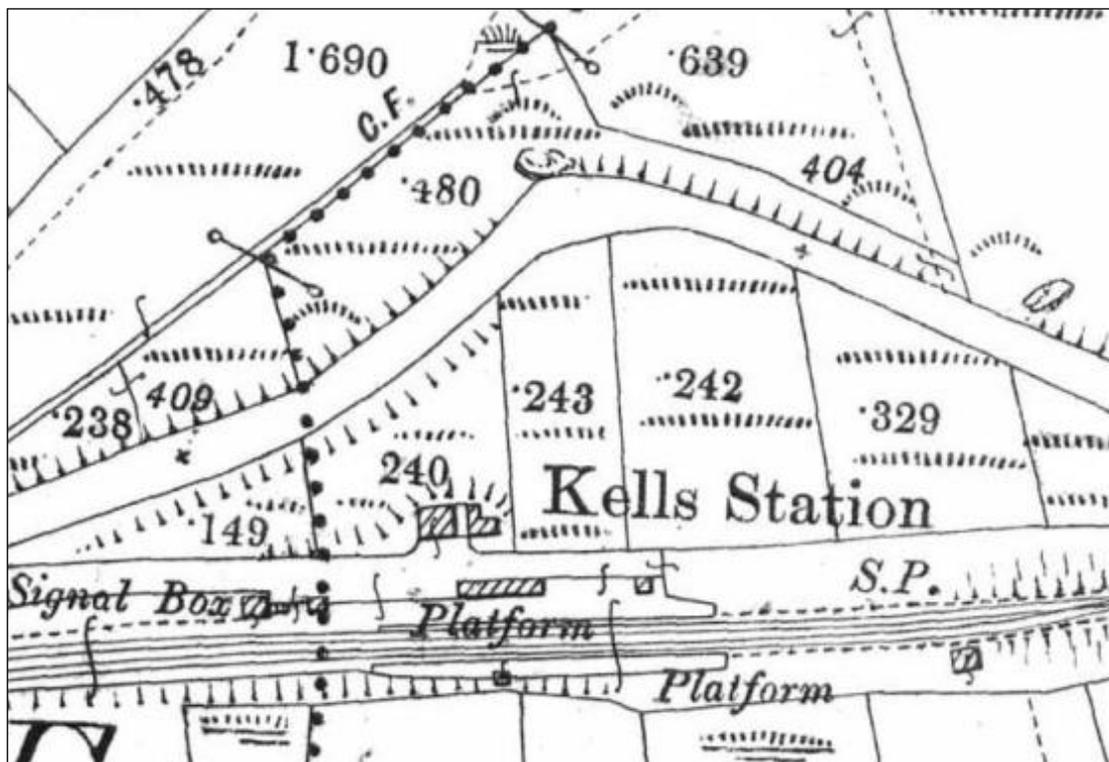


Figure 15.12: 25 inch OS map of Kells Station

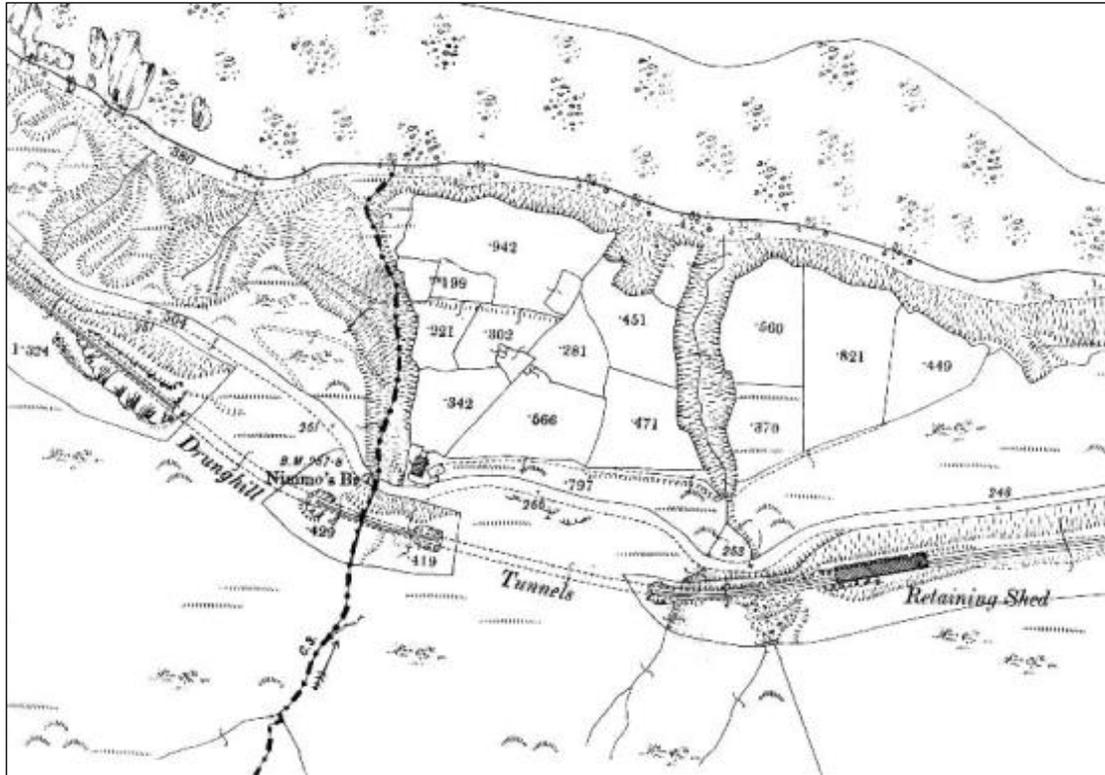


Figure 15.13: 25 inch OS map of Drung Hill tunnels with retaining shed at east



Figure 15.14: View of entrance to Drung Hill tunnel (source: Lawrence Collection, NLI)

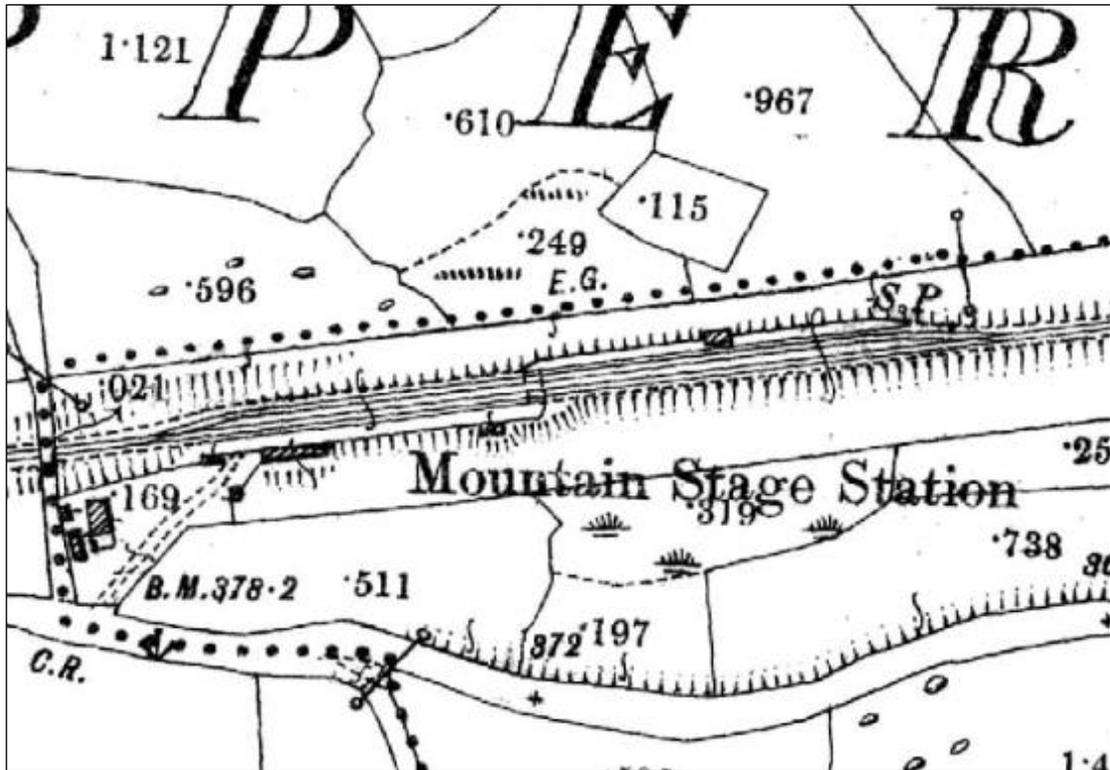


Figure 15.15: 25 inch OS map of Mountain Stage Station



Figure 15.16: View of train approaching Drung Hill from north (source: Lawrence Collection NLI)

### 15.3.4 Field Survey

The accessible areas of the study area were inspected in January 2018, including all sections of the route in close proximity to recorded cultural heritage sites, and extracts from the photographic record compiled are presented in Appendix 15.1. The railway line in the west end of the study area follows a generally linear route, albeit with a number of slow bends as it changes direction around features such as the crossing point on the River Fertha at Cahersiveen after which it follows in a north-easterly line towards Kells. The route then continues in a broadly curvilinear line as it follows the lower slopes of the rocky uplands above the southern shore of Dingle Bay before following the gradually downward sloping terrain into the more low-lying lands to the south of Glenbeigh village where it terminates to the south of the village. The lands adjacent to the low-lying sections of the route generally comprise improved pasture fields while the steeply sloping terrain in the upland section is dominated by rocky heathlands. The following description of the route is structured to extend eastwards from Reenard to Glenbeigh thereby mirroring the chainage system for the proposed scheme. The descriptions should be read in conjunction with the annotated photographic record of the site inspection provided in Appendix 15.1.

#### *Reenard to Cahersiveen*

The former location of the Valentia Harbour railway terminus at Reenard is now occupied by a modern fish-processing commercial building (Plate 15.1) with two detached modern houses to the north. The Harbour View Hotel shown on the OS map in the area to the south of the station is now occupied by The Point Restaurant. The proposed route does not extend through the former footprint of Valentia Harbour Station and instead commences within a pasture field located to the east where a diverted section of the route will extend through an area of rough pasture. The route then connects with the railway line along the margins of the rocky shoreline as it continues towards Cahersiveen town and it is still visible as a low embankment incorporated as a field boundary feature within the pasture field system that occupies this area. The detail on the consulted 25-inch OS indicates that this section of the line comprised a mix of embanked areas with localised cut sections, presumably as a response to localised variations in the natural rocky topography along the margins of the shoreline. There are a number of dispersed, detached modern houses built directly on this section of the former line and the proposed route will entail localised diversions around each of these properties. There are no recorded archaeological or architectural heritage constraints in the vicinity of any of the proposed off-line diversions. An ecclesiastical enclosure (KE079-035001-) in the western outskirts of the town is now located within a fenced area inside a council water treatment plant. The proposed route will diverge from the rail line through an area of marginal land in order to avoid this property. A number of housing estates have also been constructed on the former line within Cahersiveen and the proposed route within this settlement diverges to follow the public roads within the town before returning to the former railway line in the area adjacent to the RIC barracks (Plate 15.2). The route will, therefore, not extend through the former location of Cahersiveen Railway Station, which has been impinged upon by a number of modern developments and few traces of the structures shown on the 25-inch map survive and historic photography survive (Figures 15.8 and 15.9).

While there are a number of recorded archaeological monuments and NIAH structures within the town and its close environs, the proposed route along the public roads will avoid their footprint and no works are proposed within the Cahersiveen ACA (Figure 15.1). The route then re-joins the former railway line in the north end of the town in the area adjacent to the Cahersiveen Heritage Centre that occupies the former RIC Barracks building (RPS/NIAH ref. 21400901). The route will not extend into this property and instead follows a modern footpath on the former railway line adjacent to the estuary shore and then crosses the railway viaduct (RPS/NIAH ref. 21400910). The former railway revetment wall along the shoreline survives as a random rubble walled structure and traces of random rubble boundary walls along the railway line also survive (Plates 15.3, 15.4 and 15.5). No interventions to these features are proposed. The area where the existing footpath reaches the south end of the bridge extends within the outer edge of the Zone of Notification surrounding a levelled cashel site (KE079-046---) located approx. 50m to the south. No ground works are proposed within the notification zone around this site. Access to the bridge is currently fenced off from the public but it was observed from the southern shoreline (Plates 15.6 and 15.7). The bridge comprises a seven-span iron lattice girder structure supported by cast-iron circular piers with pair of box girders on limestone piers. This structure has been subject to a separate impact assessment by Kerry County Council which has been consulted as part of the current assessment. The bridge is given a Regional rating in the NIAH under the categories Architectural and Technical. The overall structure and its supports remain intact but extensive traces of corrosion are evident within the metalwork and widespread gaps have developed along sections of the deck. The support piers within the channel and the stone abutments on the southern landward side appear to be in good condition. A summary of the proposed repairs to this structure are presented in Section 15.4.

The proposed scheme within this section of the route will also include the establishment of three work compounds in close proximity to works areas and access to each location will be through existing access routes. The proposed scheme will also include the construction of a car park in the green field area adjacent to the west side of the diverted section of the route located between Chainage 000 and 100 and will also utilise an existing car park at Cahersiveen marina. The proposed locations of the compounds and the new car park were reviewed and do not contain any recorded archaeological or architectural heritage sites/structures.

#### *Cahersiveen to Kells Station*

At the north end of the viaduct the proposed route follows the railway line for a short section but then diverts at Chainage 5950 and extends along the edges of the pastures fields above the north shore of the estuary. It then turns to the north at Chainage 7100 and re-joins the former line at Chainage 7500 where it continues along the railway line as it extends through an area of pasture farmland along the lower slopes of uplands to the north. This diversion avoids the remains of an extant railway bridge located in a pasture field in Cloonhanelinaghan townland (ITM 447896, 581158). The former rail line in this area comprises a low linear hollow which was partially flooded at the time of inspection (Plate 15.8). The detail on the consulted 25-inch OS map depicts this area of the line as a combination of embanked, cut and level sections. The line has been truncated in places by modern houses and land improvement works while other sections are overgrown or reused as farm lanes (Plates 15.9 and 15.10). However, surface traces of sections of embankments, extending up to 2m in height, as well as sections of shallow cuts were noted during the inspection (Plate 15.11 and 15.14). A number of small, stone-built drainage culverts and a crossing over a farm lane (Plate 15.14) are located along this section of the line and these were in generally good condition. The overall pattern of the ground terrain within this area of the route comprises gently sloping lands extending down from the uplands to the west and the culverts appear to have been fed by drains extending along the upslope sides of the railway line. A number of the accessible level crossings in this area were inspected and no surface traces of railway features were noted in the resurfaced public roads. However, the remains of a level crossing gate were noted at a crossing point on a local road near Chainage 8450 in an area where the proposed route diverts off the former railway line in order to avoid a modern house (Plates 15.12 and 15.13). A Community Resource Centre now occupies the site of Kells Station and this property retains a number of associated brick-built buildings and both of the rail platforms shown on the 25-inch OS map (Plate 15.15; Figure 15.12). The proposed route extends along the southern edge of the N70 roadway to the north of this location and will not impact on the extant station buildings. A proposed underpass in the road located immediately to the west will also not extend into the station property.

The proposed scheme within this section of the route will also include the establishment of seven compounds within in close proximity to works areas. All of these locations, apart from one example adjacent to Chainage 13350, utilise existing access routes. The compound locations and the proposed access route to Chainage 13350 were reviewed and do not contain any recorded archaeological or architectural heritage sites/structures.

#### *Kells Station to Mountain Stage Station*

This section of the route broadly follows the line of the N70 road and comprises a scarp into the bedrock material along the lower section of the steep slopes that rise up to the east. The morphology of the railway line comprises various construction responses to the difficult terrain conditions in this rocky upland terrain with areas of tunnelling, scarps and sections within deep cuts down into the bedrock material. This section of the line also contains frequent stone-built arched culverts built to channel the small streams extending down the steep slopes in this area. There is one recorded archaeological site located within the study area extending around this section of the line and this comprises a levelled enclosure (KE070-004----), with a possible souterrain (KE070-004001-), located in a field adjacent to the north side of a cut section of the line (approx. Chainage 17670). The adjacent section of the line to the recorded location of this levelled enclosure comprises an overgrown, deep cut quarried down into the bedrock material (Plate 15.17). The former surface of the rail line at the base of this cut section was heavily silted, in part due to the ingress of small streams. No surface traces of the enclosure or possible souterrain were noted during the inspection of this area and the recorded location of the enclosure will not be used as an access route to the quarried out section of the railway.

This section of the route extends to the east of a quarry site which is now partially occupied by the Quarry Restaurant premises (west of Chainage 18100-18200). A commemoration monument to John Golden, a South Kerry Fenian who was born at Kells in c. 1845, stands within the restaurant car park.

Golden was involved in an 1867 insurrection in the Kells area and following his capture was deported as a convict to Western Australia. There are no proposed interventions in the vicinity of the monument.

This section of the line contains the Gleensk Viaduct which comprises a curving eleven-span steel girder railway viaduct with rusticated sandstone tapered pylons (Plate 15.19). This structure was constructed by T.K. Falkiner in 1893 based on a design by A.D. Price. Access to the viaduct is fenced off but the structure was observed during the site inspection. The deck is currently covered with low grass growth (Plate 15.20) while the remainder of the structure appears to be in relatively good condition, although the presence of spray paint graffiti on both the inner and outer parapets somewhat detracts from its character. The Kerry County Council's Record of Protected Structures lists the existing condition of the structure as 'Fair' and it is given a Regional rating in the NIAH under the categories Architectural and Technical. The proposed repairs to this structure are summarised in Section 15.4.

This area of the route also contains the three rock-cut tunnels, lined with internal random rubble stonework, on the north side of Drung Hill along the section of the route extending across an area of steep slopes above the coastal section of the N70. These structures and their associated rusticated cut stone entrances and internal recess features are all intact and are in generally good states of preservation although the interior of the western tunnel was not accessible due to a collapse of the ground on the east side (Plate 15.21). A proposed bridging at this collapsed location of the hillside will not impinge on the tunnel structures. An inspection of this tunnel by Malachy Walsh Engineers noted that elements of the water ingress within the tunnel were created by circumferential cracks in the structure and this has resulted in loss of pointing in the stonework. The cut stone work on both sides of the central tunnel was intact and the interior was empty although the ground surface was covered with silts and localised areas where ground water had accumulated (Plates 15.22, 15.23, 15.24 and 15.25). The inspection of this tunnel by Malachy Walsh Engineers again observed that a number of areas of water ingress are visible within cracks in this tunnel and that this has also resulted in loss of pointing in the stonework. The cut stone work on both entrances to the eastern tunnel was also intact and the interior was partially occupied by a number of timber built sheep pens (Plates 15.26 and 15.27). These features, which comprised simple lean-to structures resting on the silted ground surface and the sides of the tunnel, have not created any impacts on the tunnel structure. Access to the section of the line to the east of the tunnel was blocked by the presence of thick undergrowth. The proposed repairs to the tunnel structures are summarised in Section 15.4 of this chapter.

The proposed route diverges from the former rail line in the area to the east as it follows the N70 as it extends away from the coastline. The existing N70 in this area comprises a modern diversion that now extends over the former rail line and the proposed route in this area instead follows a side road on the south side of the N70 between approx. Chainages 25500-27100 (Plate 15.28). The former location of the Mountain Stage station is located along the area now occupied by the diverted section of the N70 (Plate 15.32). The side road carrying the proposed route formed part of the main road until the 20<sup>th</sup> century diversion works and now forms part of the Kerry Way. The only recorded archaeological monument within the study area in this area is a boulder containing rock-art motifs (KE063-013----) which is located within private property on the south side of the side road (near Chainage 26750) that carries this section of the proposed route (Plate 15.29). A memorial cross commemorating the execution of Captain Frank O'Grady by the Free State forces is located adjacent to the south side of the local road in the eastern end of this section of the side road (approx. Chainage 28800) (Plate 15.30).

The proposed scheme within this section of the route will also include the establishment of six compounds in close proximity to works areas. Two of these locations will require the construction of new access tracks while the remainder will utilise existing access routes. The compound locations and the two proposed access routes were reviewed and do not contain any recorded archaeological or architectural heritage sites/structures. This section of the scheme will also utilise the existing car park at the Quarry Restaurant near Chainage 18200 and this will not impact on the John Golden monument within this property.

#### *Mountain Stage Station to outskirts of Glenbeigh*

The proposed route then crosses the N70 over a former railway bridge, with a modern parapet (Chainage 26870) (Plate 15.31), and then reconnects with the former rail line as it extends through improved pasture land in a broadly north-easterly direction as it extends through a low-lying terrain that slopes gradually down to the north. The section of the line in this area comprises low embankments that in many areas now form tree-lined field boundaries within the pasture farmlands in the low-lying terrain to the west of the River Behy. A cut section of the line extends north-eastwards between approx. Chainage 30100-30550 and a former rail bridge survives over this section (approx. Chainage 30300) (Plate 15.33).

The route then diverges from the rail line and extends through a pasture field, crosses the Curra Road and reconnects with the line as it extends through the south end of an area of Coillte forestry (Plate 15.38).

This section runs parallel to, and above, the adjacent Curra Road and includes a random rubble revetment that forms the north boundary of the roadway (Plate 15.37). The rail line in this area forms part of an existing public walkway. There are two recorded archaeological sites located on the opposite side of the Curra Road in this area: a holy well (KE063-007----) and a children's burial ground (KE063-008----) (Plate 15.35), which also contains a cross-slab (KE063-008001-). There were no surface traces of the holy well noted during the site inspection and the general area has undergone recent land improvement works. The site of the children's burial ground is now occupied by a modern graveyard (Plate 15.36). No works are proposed at either location.

The proposed scheme within this section of the route will also include the establishment of four compounds in close proximity to works areas. One of these locations will require the construction of a new access track while the remainder will utilise existing access routes. Works in this area will also entail the creation of a car park within a wooded area to the north of the terminus of the scheme in the southern outskirts of Glenbeigh. Based on a consultation of the 25-inch OS map, this small wooded area is located adjacent to the railway line and is shown as undeveloped on all editions of the historic OS maps. The compound locations, including the proposed new access route, as well as the location of the car park area were reviewed and do not contain any recorded archaeological or architectural heritage sites/structures.

## 15.4 Impacts

### 15.4.1 Summary of proposed works

#### *Railway Line*

In general, the proposed works to create the cycleway on the existing railway line will comprise the following:

- the existing railway ballast will be taken as the formation level
- this will be made good as required using 50mm crushed limestone
- where the ballast is not in-situ, the existing ground level will be excavated to sub-formation level
- a layer of geotextile will be placed over subgrade to receive capping layers
- capping will be 250 mm layer of 100mm crushed stone finished with 50mm crushed stone to formation level
- a minimum of 150mm of Clause 804 will be placed on this layer as sub-base
- a 50mm surface course over finish level of the pavement will be higher than surrounding ground to allow over-the-edge drainage, in areas of cut drainage will be specifically designed
- edges will receive subsoil and topsoil to provide the verge distance and will be seeded
- drainage will use existing channels where they are present
- in new locations drainage will be designed to tie into existing watercourses

Where the construction will be off the line of the existing railway on local roads the works will comprise the following:

- The local road will be skirted to maximise the road width available for road users, excess material will be removed for disposal
- Hedges will be cut back, and overhanging branches removed
- The road edge will be excavated and backfilled with 100mm crushed stone and finished in clause 804 material to match the existing levels
- Any line of sight improvement works that have been identified will be carried out
- The road will be 'shaped up' to deal with any existing deficiencies on the drainage of the road
- The available width of the roadway will be surface dressed/improved along the length of the route deviation as required

Where the construction will be off the line of the existing railway in green field area the works will comprise the following:

- excavate new drainage channels to lines and levels in design
- remove topsoil and place in temporary spoil heaps for reuse along the line
- excavate exposed subsoil to top of sub grade
- placing of capping to formation level

#### *Railway tunnels*

The proposed works to the railway tunnels will entail localised repairs to be completed by a two-man crew using a MEWP or scaffold and platform (depending upon location) to get access to the area requiring repair. Masonry repair will require replacement of some masonry and repointing of the new inserts. Repointing will require raking out of the existing joints and repointing. The girders will be cleaned down to remove the rust coating and then painted over for protection. The topsoil material will be removed.

#### *Railway Viaducts*

The proposed scheme will entail repairs to the railway viaducts at Valentia River and Gleensk both of which are listed as Protected Structures in the County Development Plan.

The proposed works to Gleensk Viaduct will entail the following interventions:

- removal of the soil and stone capping from the deck
- repairs to damaged, corroded sections
- tar waterproofing
- introduction of thin layer of gravel to provide slip resistance
- replacement of parapet / guard rail on top of plate girders with galvanised 50mm circular hollow section railing

The deck and traverse beams on the Valentia River Viaduct have suffered 65% loss due to corrosive damage. The proposed works to this structure will, therefore, entail the following interventions:

- installation of supporting beam
- provision of stubs from the new beam approx. 1m inside the edges of the existing structure
- installation of channel level with the tops of the tracks connected to newly installed stubs
- 5m by 1m sheets of open mesh flooring utilising the new channel sections and existing tracks as deck support
- erection of 1.4m high galvanised hand rail at 1.5m intervals. A top rail of same material is to be provided. A galvanised mesh will infill between the posts and rail.
- blockwork headwall to be constructed and existing footpath ramped up to meet the level of the new deck. Removal of vegetation and minor steelwork repairs may also be required.

#### 15.4.2 Architectural Heritage Impacts

As noted in the Kerry County Council impact assessment of the repairs to the two viaduct structures will result in **slight visual and physical negative impacts** to elements of both structures but these have been deemed unavoidable due the extent of corrosion damage (Kerry County Council 2016). The proposed repairs to and stabilisation of both structures have been designed to conform to best conservation practices and will assist in arresting the ongoing processes of corrosion. The integration of the repaired railway viaducts into public accessible spaces as part of the greenway route will result in a **moderate positive impact** on the general cultural heritage of the study area.

While there are a number of RPS and NIAH structures located within Cahersiveen section of the study area, as well as the Cahersiveen ACA, the proposed scheme will involve a relatively passive use of the existing public roadways within this settlement as a cycle route. There are no works proposed to any of the listed structures and the proposed scheme will have a **neutral impact** on the architectural heritage of the town.

The study area contains various railway features, which while not listed in the RPS or NIAH, are interpreted as being of local cultural heritage significance.

These include features such as the rail embankments and cut sections, the Drung Hill tunnels, various mall bridge crossings, stone-built culverts and the extant rail buildings at Kells station. Apart from localised interventions, such as the removal of tracks in the 1960s, an N70 road diversion, the construction of modern houses on the former line and impacts by land improvement works, the rail line and its associated features form a relatively well-preserved feature within the landscape of north Iveragh. However, many areas of the line have now become overgrown and silted-in due to a lack of vegetation control and maintenance of drainage channels. The railway line and its associated features are not protected and are vulnerable to further impacts by localised developments, agricultural activity and general degradation by absence of maintenance. The proposed scheme interventions to the remains of the railway line and associated features will largely be minor in scale and will typically entail vegetation control, cleaning of ground surfaces and improvement of drains. The scheme will not involve the removal of any associated rail features such as extant bridge and station structures or the stone-built drainage culverts that extend under the line. The proposed scheme will formalise the route of the line within the landscape and assist in halting the general decline of the physical remains of this element of the cultural heritage of the county through proper maintenance of the remains of the railway line. In summary, the proposed scheme will have a **moderate positive direct impact** on the remains of the railway line and its associated features.

### 15.4.3 Archaeology

There are no known archaeological sites located on the direct footprint of the proposed scheme, including the diversions around modern properties and, therefore, **no direct negative impacts** on the known archaeological resource are predicted. The construction and subsequent dismantling of the railway line, especially within cut sections, in conjunction with its associated drainage network has reduced ground levels along the line down to the level of natural subsoils and bedrock. The embanked areas of the line also are formed by introduced ballast material that has raised formation level above surrounding ground. However, the areas directly adjacent to the former track include typically comprise undeveloped green field lands and it is possible that unrecorded, sub-surface features of archaeological significance may exist in areas where any ground works extend off the former railway line. As the existence and extent of any unrecorded, sub-surface archaeological features within these areas are currently unknown, the nature and level of these potential impacts cannot be quantified but may **potentially include direct negative impacts**. There are also localised areas of surface bedrock on the footprint of the proposed route as it extends through upland areas and the archaeological potential of these areas is interpreted as low in nature.

The proposed route does extend through the designated Zones of Notification surrounding four recorded monuments (Table 15.3). None of these are located on the direct footprint of the route, which follows an existing roads and footpaths in the vicinity of three of these monuments. The proposed scheme will entail upgrading works within a quarried section of the former railway line within the notification zone surrounding levelled enclosure (KE070-004----).

**Table 15.3: Archaeology sites with notification zones extending into the scheme area**

Recorded Monument	Distance from scheme	Proposed Works	Impact
Cashel KE079-046----	50m to south	None. Route follows existing path extending through outer edge of notification zone	Neutral
Enclosure KE070-004----	10m to east	None. Upgrading of cut section of former railway line in area to west of levelled enclosure (approx. Chainage 17660)	Neutral

Recorded Monument	Distance from scheme	Proposed Works	Impact
Rock art KE063-013----	15m to south	None. Route follows existing road extending through outer edge of notification zone (Chainage 26750)	Neutral
Holy well KE063-007----	20m to SE	None. Route follows existing pathway extending through outer edge of notification zone (approx. Chainage 31300)	Neutral

#### 15.4.4 Do Nothing Scenario

A 'Do Nothing Scenario' will see to the continued preservation of recorded and potential cultural heritage features within the study area, albeit with continued degradation of the Valentia Railway Bridge and Gleensk Viaduct.

#### 15.4.5 Cumulative Impacts

A review of a number of developments identified by Fehily Timoney & Company for assessment of cumulative impacts was undertaken as part of the assessment. This review entailed consulting with the online planning documents for the identified developments as well as a review of the Excavations Database to ascertain if any previously unrecorded archaeological features were uncovered at any of the subject sites. No potential cumulative impacts on the cultural heritage resource were identified.

### 15.5 Mitigation

All interventions to the railway viaducts, the Drung Hill tunnels and ancillary railway features, such as culverts, will be carried out under the supervision of a conservation professional and in accordance with best conservation practice. A pre-works method statement outlining proposed interventions to all architectural heritage structures will be submitted to the Kerry County Council Architectural Conservation Officer for approval. A post-works report, to include a detailed photographic record of all repairs/interventions, will also be compiled for submission to the Conservation Officer.

Any proposed ground reduction and vegetation clearance works within the Zone of Notifications surrounding the recorded archaeological monuments identified in Table 15.3 will be archaeologically supervised. The locations of each of the monuments will be clearly signed as excluded areas for the duration of works. Formal notifications will be submitted to the National Monuments Service at least two months prior to commencement of works within the Zones of Notification surrounding these monuments.

A Project Archaeologist will be appointed to undertake archaeological monitoring, licensed by the NMS, within all undisturbed green field areas to be impacted by the proposed scheme. These may include, but not limited to, diversions off the line of the former railway, work compounds, new access tracks and drains. A watching brief of works, to include a detailed photographic record, within previously disturbed sections of the railway line will be maintained on a periodic basis which will be agreed with the NMS as part of the licence application process. In the event that any potential unrecorded archaeological features are uncovered in any areas they will be recorded and then cordoned off to remain in situ while the Kerry County Council Archaeologist and the National Monuments Service are consulted, and an appropriate mitigation strategy has been agreed. A detailed post-works report on the archaeological supervision of the proposed scheme will be submitted to the NMS and Kerry County Council Archaeologist at the completion of the project.

## 15.6 Residual Impacts

Should the proposed archaeological mitigation measures be followed as recommended, this shall provide for the avoidance of the known archaeological resource as well as the avoidance or recording of currently unknown archaeological features that may be encountered as part of the proposed scheme.

Should the proposed architectural mitigation measures be followed as recommended, this shall provide for any required repairs/interventions to the architectural heritage resource to be undertaken to professional conservation standards. As a result, there shall be no residual direct negative impacts on the cultural heritage resource.

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