

# Architectural Impact Assessment Report Pass Bridge Rehabilitation Works, Monasterevin, Co. Kildare

Ian Russell September 2024

**Report Status: Final** 

ACSU Ref.: 24138



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Unit 21 Boyne Business Park Greenhills, Drogheda

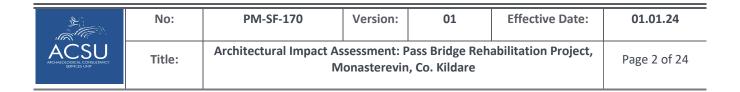
Co. Louth

**Q** 041-9883396

**6** 041-2130310

info@acsu.ie

www.acsu.ie



## **PROJECT DETAILS**

**Project** Pass Bridge Rehabilitation Project, Monasterevin, Co. Kildare

**Report Type** Architectural Impact Assessment

**Townland(s)** Coolnafearagh, Passlands

**RPS No.** B21-02

**NIAH Reg. No.** 11816100

**RMP/SMR No.** KD021-006----

**ITM Ref.** 662185, 711037

**Consultant** Archaeological Consultancy Services Unit,

21 Boyne Business Park,

Greenhills, Drogheda, County Louth

Archaeologist Ian Russell

Report Author(s) Ian Russell

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	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh	abilitation Project,	Page 3 of 24

# **VERSION CONTROL**

Revision	Date	Description	Status	Author	Reviewed	Approved
1.0	30.08.2024	Architectural Impact Assessment	Final	I.R.	K.C.	D.M.
1.1	14.10.2024	Architectural Impact Assessment	Final	I.R.	K.C.	D.M.

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 4 of 24

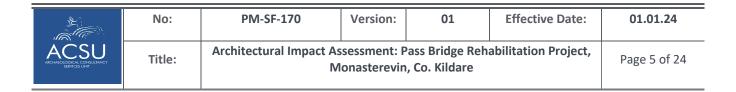
#### **NON-TECHNICAL SUMMARY**

This report details the results of an Architectural Impact Assessment of Pass Bridge, Monasterevin, Co. Kildare (ITM 662185, 711037). This five-arch masonry bridge, also known as Ballagh Bridge and previously Essex Bridge, carries a minor road, the R424, over the River Barrow north of Monasterevin. It was built c. 1750 of roughly coursed, undressed limestone blocks, and is the earliest surviving bridge in the locality of Monasterevin.

The proposed rehabilitation and remediation works to the bridge will include vegetation clearance from the parapets, spandrels and carriageway verges, some repointing and mortar repairs where there are localised masonry defects and cracking, reconstruction of a missing section of parapet coping and repair to a cracked cut-water and a collapsed abutment at the west side of the north face.

Pass Bridge is included in both the *Record of Protected Structures* (B21-02 in Appendix 6 of the *Kildare County Development Plan 2023–2029*) and the *Record of Monuments and Places* (RMP KD021-006----) and is therefore protected by both the National Monuments Acts 1930–2014 and the Planning and Development Acts 2000 (as amended). This report was prepared as part of a planning application to An Board Pleanála pursuant to Section 177 (appropriate assessment of local authority development) of the Planning and Development Act, 2000, as amended.

All work should be completed in accordance with conservation best practice guidelines. If there is any ground disturbance to any of the areas adjacent the bridge this may require monitoring by a suitably qualified archaeologist working under licence from the Department of Housing, Local Government and Heritage. Should any archaeological features be exposed, further mitigation may be sought by the National Monuments Service.



# **CONTENTS**

1. INTRODUCTION	8
2. THE DEVELOPMENT	9
3. STATUTORY PROTECTION	9
4. HISTORICAL BACKGROUND	11
4.1 Monasterevin	11
4.2 Pass Bridge	14
5. ARCHITECTURAL SURVEY	18
5.1 Survey Methodology	18
5.2 Description Overviews	18
5.3 Survey Results	19
6. ARCHITECTURAL HERITAGE IMPACT ASSESSMENT	21
7. RECOMMENDATIONS	21
8. REFERENCES	23

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As	ssessment: P Ionasterevin	abilitation Project,	Page 6 of 24	

# List of Figures

Figure 1	Location of Pass Bridge (© Tailte Éireann)
Figure 2	Location of Pass Bridge on north side of Monasterevin town (2022 Google Earth aerial image)
Figure 3	Zone of Notification around RMP KD021-006, Pass Bridge (© Tailte Éireann)
Figure 4	Extract from Hermann Moll's 1728 map, showing Monasterevin and the River Barrow (© Bibliothèque nationale de France)
Figure 5	Extract from Noble and Keenan's 1752 map (North), showing bridge over river in area of Pass Bridge (© The Placenames Branch)
Figure 6	Extract from Taylor and Skinner's 1777 map (sheet 96), showing Pass Bridge on the Portarlington Road (© archiveorg)
Figure 7	Extract from Taylor's 1783 map (centre-west segment), showing 'Pass Bridge' (Creative Commons Attribution)
Figure 8	Extract from first edition 6-inch Ordnance Survey map (surveyed 1836 – published 1839), showing triangular cut-waters and five arches and labelled 'Pass Br.' (© Tailte Éireann)
Figure 9	Extract from third edition 25-inch Ordnance Survey map (surveyed 1908 – published 1909), depicting 'Pass Bridge' and 'Pass Cross Roads' (© Tailte Éireann)
Figure 10	Extract from final edition 6-inch Ordnance Survey map (surveyed 1942 – published 1943), depicting 'Pass Bridge' and 'Pass Cross Roads' (© Tailte Éireann)
Figure 11	North wall and parapet on west side of Pass Bridge still intact (May 2023 Google Earth street view image)

# **List of Plates**

Plate 1	General view of Pass Bridge, looking south, with Barrow Bridge visible in background
Plate 2	General view of Pass Bridge, looking north
Plate 3	Plan view of Pass Bridge
Plate 4	North-facing elevation
Plate 5	South-facing elevation
Plate 6	Detail of north-facing elevation, east side

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 7 of 24

Plate 7	Detail of north-facing elevation, west side
Plate 8	Detail of south-facing elevation, west side
Plate 9	Detail of south-facing elevation, east side
Plate 10	North-facing elevation, oblique view looking southwest
Plate 11	North-facing elevation, oblique view looking southeast
Plate 12	South-facing elevation, oblique view looking northeast
Plate 13	South-facing elevation, oblique view looking northwest
Plate 14	View of triangular cut-waters on north-facing elevation
Plate 15	View of triangular cut-waters on south-facing elevation, with rendered soffits visible
Plate 16	Close-up of concrete base of triangular cut-water/pier
Plate 17	Detail of voussoirs on north-facing elevation
Plate 18	Detail of voussoirs on south-facing elevation, with rendered soffit visible
Plate 19	Detail of abutment and side wall on west side of north-facing elevation
Plate 20	Detail of abutment and side wall on east side of north-facing elevation
Plate 21	Detail of abutment and side wall on west side of south-facing elevation
Plate 22	Detail of abutment and side wall on east side of south-facing elevation
Plate 23	View of bridge deck, looking northeast, showing parapet walls with cut-stone coping
Plate 24	Detail of cut-stone coping on parapet wall and triangular cut-water
Plate 25	Approach walls on west side of bridge, looking northeast
Plate 26	Detail of recent damage to north approach wall on west side of bridge
Plate 27	Cracking visible in triangular cut-water in north wall on west side of bridge
Plate 28	Approach walls on east side of bridge, looking southwest
Plate 29	Detail of masonry in north approach wall on east side of bridge

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 8 of 24

#### 1. INTRODUCTION

This report details the results of an Architectural Impact Assessment of Pass Bridge, Monasterevin, Co. Kildare (Figures 1–2, ITM 662185, 711037). The assessment was carried out by Ian Russell of Archaeological Consultancy Services Unit Ltd (ACSU) on behalf of Clandillon Civil Consulting, Naas, Co. Kildare in September 2024.

Pass Bridge, also known as Ballagh Bridge and previously Essex Bridge, is a five-arch masonry bridge that carries a minor road, the R424, over the River Barrow north of Monasterevin. It was built c. 1750 of roughly coursed, undressed limestone blocks, and is the earliest surviving bridge in the locality of Monasterevin.

The development consists of rehabilitation and remediation works to the bridge, which is on both the *Record of Protected Structures* (RPS) and the *Record of Monuments and Places* (RMP) and is therefore protected by both the National Monuments Acts 1930–2014 and the Planning and Development Acts 2000 (as amended). The proposed works include vegetation clearance from the parapets, spandrels and carriageway verges, some repointing and mortar repairs where there are localised masonry defects and cracking, reconstruction of a missing section of parapet coping and repair to a cracked cut-water and a collapsed abutment.

This assessment provides a comprehensive written and illustrated record of Pass Bridge, including a general history of the bridge, a description of its setting, details of the footprint of the bridge at water level (e.g. piers and abutments) and road level (e.g. parapets, approach walls), and a rectified photographic survey of the bridge, including upstream and downstream elevations. It was prepared as part of a planning application to An Board Pleanála pursuant to Section 177 (appropriate assessment of local authority development) of the Planning and Development Act, 2000, as amended.



Figure 1: Location of Pass Bridge (© Tailte Éireann)



Figure 2: Location of Pass Bridge on north side of Monasterevin town (2022 Google Earth aerial image)

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24	
ACSU ARCHASOLOGICAL CONSULTANCY SERVICES UNIT	Title:		tectural Impact Assessment: Pass Bridge Rehabilitation Project, Monasterevin, Co. Kildare				

#### 2. THE DEVELOPMENT

It is proposed to conduct rehabilitation and remediation works to the bridge as part of Kildare County Council's annual bridge programme. The following is a summary of the defects and proposed rehabilitations:

Defect	s	Rehabi	ilitations
1.	Permeable soft verges on both sides of the carriageway pavement	1.	Raised rubbing strips to replace the soft verges
2.	Vegetation growth- parapets, spandrels	2.	Vegetation clearance
3.	Localised areas of masonry defects- missing pointing, loose stones	3.	Repointing path repairs with NHL mortar in accordance with series 2400 for Historical Structure
4.	Cutwater damage- missing section of parapet coping and diagonal cracking in cutwater	4.	Masonry reconstruction of the cracked cutwater section and the parapet coping.
5.	Longitudinal cracking in the arches	5.	Monitoring- installation of crack gauges
6.	Undermined and collapsed abutment – flood relief span	6.	Masonry reconstruction
7.	Parapet cracks in concrete coping	7.	Local crack repairs with repair mortar

#### 3. STATUTORY PROTECTION

Pass Bridge is both a Protected Structure (B21-02 in Appendix 6 of the *Kildare County Development Plan 2023–2029*) and a recorded archaeological monument (RMP KD021-006----), and it is listed in the *National Inventory of Architectural Heritage* (NIAH Reg. No. 11816100) as being of Regional significance. Structures with a Regional Rating are those that make a significant contribution to the architectural heritage of their region. They also bear comparison with similar structures in other regions in Ireland. Increasingly, structures that warrant protection make a significant contribution to the architectural heritage of their locality. The River Barrow and Nore are also a Special Area of Conservation (SAC-002162), a Natura 2000 site established under the EU Habitats Directive (European Directive 92/43/EEC).

The Record of Monuments and Places (RMP) is compiled and updated by the National Monuments Service and the National Historic Properties Service. The RMP is comprised of manuals that list all known archaeological sites and monuments in a county with accompanying maps (based on Ordnance Survey (OS) six-inch maps) locating these sites. All sites included in the RMP are protected under the National Monuments Acts (1930–2014). They are depicted on the National Monuments Service database (Historic Environment Viewer) as dots surrounded by a zone (Figure 3). The zones, referred to as a 'zone of notification', do not define the exact extent of the monuments but rather are intended to identify them for the purposes of notification under

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		Pass Bridge Reh , Co. Kildare	abilitation Project,	Page 10 of 24

Section 12 of the National Monuments (Amendment) Act 1994, which requires two months written notice of proposals to carry out works at or in relation to an RMP.



Figure 3: Zone of Notification around RMP KD021-006----, Pass Bridge (© Tailte Éireann)

The NIAH identifies, records, and evaluates the post-1700 architecture of Ireland in order to protect and conserve our built heritage. It is under the administration of the Department of Housing, Local Government and Heritage. Under Section 53 of the Planning and Development Act 2000, all sites in the NIAH Building Survey are recommended by the Minister to the elected members of the relevant local authority for their consideration for inclusion on the Record of Protected Structures (RPS). Under Section 10 of the Planning and Development Act 2000, as amended, every local authority in Ireland must keep an RPS in their development plans. A Protected Structure is a structure that a planning authority thinks is of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social, or technical point of view. The structure is recognised as important and is protected from harm under legislation contained in Part IV of the Planning and Development Act 2000. The main way that historic urban sites are protected is therefore through inclusion in the RPS (Section 51) and/or within an Architectural Conservation Area or ACA (Section 81). Pass Bridge is not within the Monasterevin ACA. Under Section 57, work on a protected structure requires the submission of a written request to the Planning Authority to issue a declaration as to the type of works which it considers would or would not materially affect the character of the structure or any element of the structure, thereby clarifying which works would be considered exempted development and those which would require planning permission.

Pass Bridge also lies within the administrative functional area of Kildare County Council where development is guided by the provisions of the *Kildare County Development Plan 2023–2029*. Detailed policies for the protection of archaeological and architectural heritage area are set out in Chapter 11: Built Cultural Heritage. The *Monasterevin Local Area Plan 2016–2022* also sets out in greater detail the Council's requirements for new

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 11 of 24

development within the overall framework of the County Development Plan, including the core strategy and other overarching policies and development management objectives and standards. The plan also seeks to protect and enhance the unique architectural and natural heritage of the town including the River Barrow Special Area of Conservation (cSAC), the Grand Canal Heritage Area (pNHA) and Moore Abbey Demesne, with an emphasis on the retention of the industrial architecture associated with the waterways to ensure the character of the town remains intact.

#### 4. HISTORICAL BACKGROUND

#### 4.1 Monasterevin

The town of Monasterevin is situated on the east bank of the River Barrow and includes the Barrow Line canal, a branch of the Grand Canal. Monasterevin derives its name from *Mainister Eimhím*, the fifth/sixth-century monastery founded by St Emin or Evin at 'Rosglas na Muimneach' (Gwynn and Hadcock 1970, 398). The Countess of Drogheda recorded that '... the old Yew Tree Cemetery [in Clogheen townland to the far north of Monasterevin town, was] where there was once a branch of St. Evin's Monastery, and here was kept for long afterwards St. Evin's bell as a swearing relic' (SMR file). The original monastery likely fell during the Viking raids in the ninth and tenth centuries and no visible surface trace survives. Other hints at early medieval occupation of the surrounding lands include a possible ringfort or rath (LA005-009----) on the west bank of the Black River, a tributary of the Barrow, c. 500m north of Pass Bridge in the townland of Inchacooly in County Laois, while an enclosure (KD026-015---- ) just over 1km to the southwest of the bridge in the townland of Clogheen may represent a similar site (SMR files).

Sometime between AD 1177 and 1181, Dermot O'Dempsey, chief of Clanmalier and Lord Of Offlay, founded the subsequent Cistercian Abbey of Rosglass, probably on the same site as the earlier monastery. It soon became known as the Cistercian Abbey of Rosglas or 'de Rosea Vallis', dedicated to SS Mary and Benedict (Gwynn and Hadcock 1970, 142). No trace of that abbey survives either, although some of its foundations and/or stone fabric may have been incorporated into the present Moore Abbey House (SMR file).

With the sixteenth-century Dissolution of the Monasteries, the Abbey and its possessions were granted to George Lord Audley, who assigned it to Adam Loftus, Viscount of Ely. With the marriage of Jane Loftus, daughter of Arthur Loftus, the third Viscount Loftus of Ely, to Charles Lord Moore, son of Henry Hamilton Moore, the third Earl of Drogheda, the Abbey and its possessions passed to the Drogheda family. The family made their seat at Monasterevin and later built Moore Abbey House. A 1596 lease on the Manor of Evon

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 12 of 24

(Monasterevin) lists, '... a fair hall, a stable, kitchen, and other rooms, an orchard, watermill ...' (SMR file). Their eldest son Henry became the fourth Earl of Drogheda in 1714. Henry inherited the estate of Monasterevin from his grandfather, Lord Loftus in 1725. He was later succeeded by his brother Edward, who had to sell much of the estate lands in County Louth to meet Henry's debts.

In 1767, Edward's son and the sixth earl (also created first Marquess of Drogheda in 1791), Charles Moore, is reported to have demolished what remained of the Cistercian Abbey and used the stones to build a new parish church. On a 1759 survey map of Monasterevin Demesne by Scalé (NLI Ms. 21. F. 37 (131-71) Map 147), a church is depicted to the north of Moore Abbey House, but no visible surface trace of this church survives (SMR file). A medieval font decorated with eight arcaded, can be found in a nearby modern chapel, however, and this may have come from the levelled parish church but originally from the Cistercian Abbey. Furthermore, in the mid- and late-nineteenth century, burials discovered just east of the house were probably associated with the former monastery and in 1996, archaeological investigations revealed further burials in this area, as well as ironworking debris, sherds of medieval pottery and a timber-lined pit (possibly representing a sluice, drain or dock) located on the original bank of the River Barrow and also of possible medieval date (Mullins 1996; 1997).

In addition to the new parish church, Moore also built a neo-Gothic style mansion known as Moore Abbey. According to Bence-Jones (1978, 210), the present Moore Abbey House is a 1767 rebuilding of a sixteenth/seventeenth-century house. The entrance incorporates a fine seventeenth-century surround of the Lofus family, and the later porch shows the coat of arms of the Moore family (SMR file). A date stone of 1607, and two sixteenth-century jamb stones, reused in a window, are incorporated into the east wall, with the latter possibly coming from the earlier house or from the abbey.

The Moore family were also largely responsible for laying out the town of Monasterevin in a typical eighteenth-century gird format, with the area, which had previously consisted of a single long street called Main Street, undergoing extensive planning and development between 1790 and 1860. This included the construction of the Grand Canal in 1786 and the railway in 1847, while a new Town Bridge was built in 1832 on the edge of Moore Abbey Demesne (Lewis 1837). Monasterevin has an unusual number of Bridges giving rise to the appellation 'the Venice of Ireland'. This includes a single-arch rubble stone foot bridge over the canal, built c.1785 (NIAH Reg. No. 11816101); a single-arch rubble stone hump back road bridge over the canal, built c.1800 (NIAH Reg. No. 11816005); a three-arch rubble stone canal aqueduct over the river, built c.1825 (NIAH Reg. No. 11816004); a five-arch bridge over the river, built 1832 (NIAH Reg. No. 11816057); a three-span railway bridge over the canal, built 1847 and renovated c.1950 (NIAH Reg. No. 11816105); a nine-span railway

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 13 of 24

viaduct over river and roads, built 1847 (NIAH Reg. No. 11816001), and a three-span railway viaduct over canal and road, built 1847 (NIAH Reg. No. 11816026). The following is an extract from Lewis' *A Topographical Dictionary of Ireland* of 1837:

The street is intersected by the Dublin road; and a bridge of six arches over the Barrow was erected in 1832, in a direct line with the road, by which the former sharp and dangerous turn is avoided. A new street has recently been laid out in a direction parallel with the back of the principal street, at the private expense of the Rev. Henry Moore; and great improvements have been made on the line of the Grand Canal by that company, among which may be noticed the construction of an elegant cast iron drawbridge over the canal, in 1829, and the carrying of the canal over the Barrow by an aqueduct of three arches of 40 feet span, handsomely built of hewn limestone, and surmounted by an iron balustrade; a branch canal from this place has also been extended to the thriving town of Portarlington. The extensive brewery, distillery, and malting concern of Mr. Cassidy, whose dwellinghouse is highly ornamental to the town, afford employment to many of the working class; and a small tobacco and a tobacco-pipe manufactory are also carried on. The traffic arising from its situation as a great thoroughfare on one of the branches of the great southern road from the metropolis adds to the support of the town. Its situation in the midst of a vast extent of turbary affords eminent advantages for the establishment of manufactures; and its facilities of communication with Dublin, Shannon harbour, and Waterford, by means of the Grand Canal and the Barrow navigation, render it peculiarly favourable to the carrying on of a very extensive inland trade.

There are many notable eighteenth- and nineteenth-century buildings still surviving across Monasterevin town today. Archaeological monitoring of groundworks associated with the restoration of one such building, the eighteenth-century Grove House (NIAH Reg. No. 11816047), previously revealed a deposit of 'garden soil' likely corresponding to the long, narrow rear gardens depicted on the earliest maps of Monasterevin and representing burgage plots (Ó Drisceoil 2003). Although it is not yet clear if a medieval settlement existed in Monasterevin at the same time as the Cistercian monastery, it can be speculated that if it did it would probably have been located somewhere near the present centre of the town (ibid.). A barrel-vaulted culvert built partly of brick, but predominantly of stone and mortar, was also uncovered during these works and likely represented a post-medieval sewer or wastewater culvert depositing waste into the River Barrow some 110m to the west.

The tenth Earl of Drogheda abandoned Moore Abbey House in the early twentieth century and it was later sold to the Sisters of Charity of Jesus and Mary. The railway station at Monasterevin closed in 1976 but it remains intact, displaying typical Great Southern & Western Railway (GSWR) architecture but with brick chimneys (NIAH Reg. No. 11816094).

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 14 of 24

#### 4.2 Pass Bridge

Pass bridge forms part of the development of the road network in the town of Monasterevin during the mideighteenth century. It spans the townland boundary, defined by the River Barrow, between Passlands and Coolnafearagh and is located in the Civil Parish of Monasterevin and the Barony of West Offaly. Passlands (Fearann Áth an Bhealaigh) is referred to as 'Passford' on Noble and Keenan's 1752 map, as 'Pass' in the second edition of the Directory of Postal Towns in 1814, and as 'Pass Lands' in the 1837 Ordnance Survey Parish Namebooks (https://www.logainm.ie/25214.aspx). Coolnafearagh (Cúil na Fiarach) was recorded as Cowlynefidraghe alias Disertane as early as 1567 with a reference to Cullynferragh in 1601 and various versions used throughout the seventeenth and eighteenth centuries, including Collnafera on Noble and Keenan's 1752 map, with O'Donovan recording Cúl na fiarach as 'back of the back' in the 1837 Ordnance Survey Parish Namebooks (https://www.logainm.ie/25202.aspx).

While Hermann Moll's 1728 map, *King's County, Queen's County and Kildare County*, depicts 'Monsterevan' and the River Barrow it does not include any bridges (Figure 4), Noble and Keenan's 1752 map, however, does illustrate a bridge over the river north of the town that likely represents the Pass Bridge (Figure 5). Indeed, this bridge is also depicted on Taylor and Skinner's 1777 Maps of the Roads of Ireland, on the Portarlington Road (Figure 6), as well as on Taylor's 1783 map, where it is labelled Pass Bridge (Figure 7).



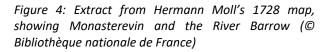




Figure 5: Extract from Noble and Keenan's 1752 map (North), showing bridge over river in area of Pass Bridge (© The Placenames Branch)

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 15 of 24

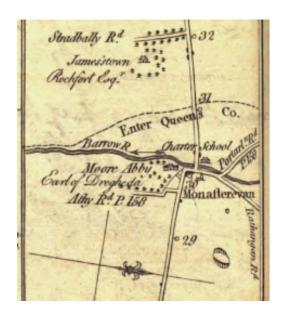


Figure 6: Extract from Taylor and Skinner's 1777 map (sheet 96), showing Pass Bridge on the Portarlington Road (© archiveorg)



Figure 7: Extract from Taylor's 1783 map (centre-west segment), showing 'Pass Bridge' (Creative Commons Attribution)

The first edition 6-inch Ordnance Survey (OS) map surveyed in 1836 shows the bridge with up to four arches or piers and it is clearly depicted as 'Pass Br.' (Figure 8). At least four houses/buildings are illustrated on the east side of the river adjacent to the canal, while up to three others are depicted on the west side of the river. Griffith's Valuation of 1847–64 records the land on both sides of the bridge and river as owned by the Marquis of Drogheda, with the four buildings and land to the east leased by Timothy Brennan, who also sub-let two of the houses and their associated gardens to Michael Finnigan and Owen Mallen, while the land and three buildings to the northeast was leased by Arthur Rooney. A similar layout of structures is also illustrated on the third edition 25-inch OS map surveyed in 1908, though this time the railway line is illustrated to the south as are several small islands or linear deposits within the River Barrow, which has also changed course slightly (Figure 9). The bridge is named as 'Pass Bridge'. The last edition 6-inch OS map surveyed in 1942 also shows the bridge as 'Pass Bridge', while the 'Pass Cross Roads' is illustrated for the first time to the west (Figure 10).

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 16 of 24

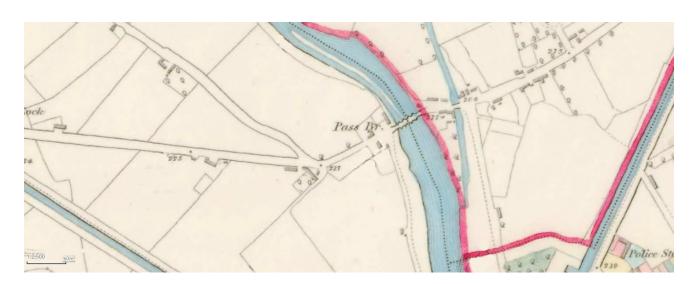


Figure 8: Extract from first edition 6-inch Ordnance Survey map (surveyed 1836 – published 1839), showing triangular cutwaters and five arches and labelled 'Pass Br.' (© Tailte Éireann)

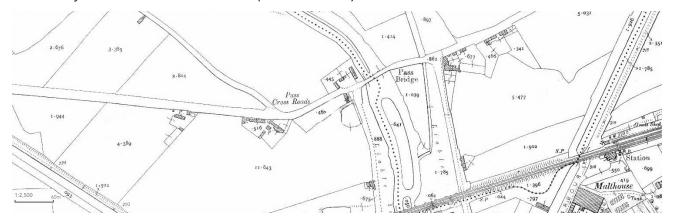


Figure 9: Extract from third edition 25-inch Ordnance Survey map (surveyed 1908 – published 1909), depicting 'Pass Bridge' and 'Pass Cross Roads' (© Tailte Éireann)

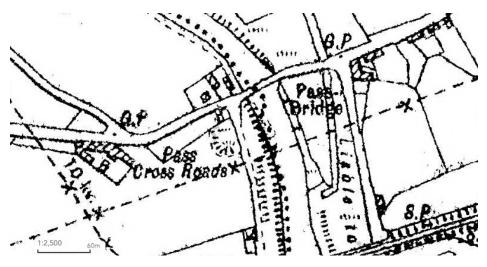


Figure 10: Extract from final edition 6-inch Ordnance Survey map (surveyed 1942 – published 1943), depicting 'Pass Bridge' and 'Pass Cross Roads' (© Tailte Éireann)

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24	
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:		Architectural Impact Assessment: Pass Bridge Rehabilitation Project, Monasterevin, Co. Kildare				

A review of available aerial photography for the area was also undertaken as part of this assessment. Aerial photographs dating between 1995 and 2018 from the Ordnance Survey of Ireland (OSi) and Google Earth imagery dating between 2006 and 2023 were assessed. The bridge is shown crossing the River Barrow and is visible within an unchanged or unaltered landscape on all examined aerial images.

The Schools' Collection, a collection of folklore compiled by school children in Ireland in the 1930s, includes a note on Pass Bridge made in 1937 by Dorethy Bryan (aged 14), who got the account from her father, a farmer aged 66 and 'living in Old Grange, Monasterevan, where he was born, and spent all his life' (Volume 0780, Page069a):

The Pass Bridge is situated in Passlands, Monasterevan, about half a mile from Monasterevan town. Pass Bridge is built over the river Barrow and it is only there since the time of Cromwell. Before this the people crossed the river at the shallow part. Cromwell was marching from the south to Dublin. When he came to the river he did not cross at the ford because he was not accustomed to crossing the water on horse-back, so he built the bridge. This bridge has never been altered since that time, although it was blown up in the time of the Black and Tans, and rebuilt again. It is so narrow at the top, that two vehicles could not pass side by side.

A second entry in *The Schools' Collection* (Volume 0780, Page 006) records similar folklore about Cromwell, adding that 'He planted an elder tree in Monasterevan at a place now known as the Pass bridge or Cromwell's Pass' but that this 'elder tree was destroyed in 1922 when the bridge was blown up by the Republican forces'. According to the Countess of Drogheda in 1902–3, however, the bridge was also reported to have been crossed by the Earl of Essex in 1599, and only later by Cromwell on his way to destroy Lea Castle in Co. Laois (SMR file). Sir Robert Devereaux, Earl of Essex, was one of several occupants in the area during the Elizabethan era (AD 1558–1603) and the bridge was originally named Essex Bridge after him but came to be commonly known as the Pass Bridge, reportedly because he passed over it on his way to his disastrous campaign against the native Irish in Munster (The County Kildare Federation of Local History Groups). Accordingly, these accounts suggest that an earlier, sixteenth-/seventeenth-century bridge, may once have stood here.

Notably, a much earlier presence in the area is also attested by several archaeological objects recovered from the River Barrow, including in the vicinity of Pass Bridge, particularly between the years 1929 and 1931. These include at least eight stone axeheads (NMI 1929:1198; 1931:176, 177, 184, 189; 1932:6648, 7040; 1940:311), several of which are recorded as polished or partly polished and most are likely Neolithic (3900–2450 BC) in date. A well-preserved, Class 1 bronze sword (NMI 1940:310) of Late Bronze Age date (1100–700 BC), was also recovered from this area during drainage operations (Eogan 1965, 25, fig. 4, no. 8).

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As		ass Bridge Reh , Co. Kildare	abilitation Project,	Page 18 of 24

#### 5. ARCHITECTURAL SURVEY

#### **5.1 Survey Methodology**

Pass Bridge was examined, photographed and surveyed. The survey included a written description of the bridge and its setting. A desk-based review of various written, cartographic and photographic sources was undertaken alongside a site visit. The bridge was photographed in plan and both upstream and downstream elevations were surveyed using rectified photography using a UAV (DJI Phantom 4 Drone with RTK capability). The results of the surveys are presented in Plates 4–13.

#### **5.2 Description Overviews**

Appendix 6 of the Kildare County Development Plan 2023–2029 details Pass bridge as follows:

RPS No.	NIAH Ref.	Structure Name	Townland	Description	6" Map
B21-02	11816100	Pass Bridge	Coolnafearagh	Bridge	21

The National Inventory of Architectural Heritage entry is as follows:

Reg No.	Rating	Categories of Special Interest	Original Use	In Use As	Date	Coordinates	Date Recorded
11816100	Regional	Architectural, Historical, Social, Technical	Bridge	Bridge	1725– 1775	262248, 210994	29/05/2002

**Description**: Five-arch rubble stone road bridge over river, c.1750, with triangular cut-waters, rubble stone voussoirs and cut-stone coping to parapet walls. Random rubble stone walls. Rubble stone triangular cut-waters. Rubble stone parapet walls with cut-stone coping. Five round arches. Rubble stone voussoirs. Rubble stone soffits with render over. Sited spanning River Barrow with grass banks to river.

**Appraisal**: Pass Bridge is a fine stone bridge that forms an imposing feature on the River Barrow and is one of a group of bridges on the section of that river that passes through County Kildare – the bridge is of considerable interest as the earliest surviving bridge in the locality of Monasterevin. The construction of the arches that have retained their original shape is of technical and engineering merit. The bridge exhibits good quality traditional stone masonry. The bridge is of considerable historical and social significance as a reminder of the road network development in Ireland in the mid eighteenth century.

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU archaeological consultancy services unit	Title:	Architectural Impact As M		ass Bridge Reh	abilitation Project,	Page 19 of 24

The Record of Monuments and Places entry is as follows:

igh, Passlands
١

According to the Countess of Drogheda (1902–3, 235), the bridge was possibly crossed by the Earl of Essex in 1599, and later by Cromwell on his way to destroy Lea Castle in Co. Laois (LA005-006----). A five-arch bridge (L c. 40m; Wth 4.1m) spans the S-flowing River Barrow, just N of Monasterevin. It is constructed of roughly coursed, undressed limestone blocks and, although rebuilt in places, appears to contain a good deal of original fabric. It has been extensively repointed and the bases of the piers are of concrete. Four triangular cutwaters on the N, upstream, face rise the full height and are incorporated into the parapet as small refuges. Similar cutwaters on the S-face are only the height of the base of the piers. Traces of a sixth, lower, blocked-up, overgrown arch are visible on the S-face of the bridge at its W end. It is also known as 'Ballagh Bridge'. Compiled by: Gearóid Conroy. Date of upload: 20 October 2011.

Six-Inch First edition: 'Pass Br.'

Six-Inch Latest edition: 'Pass Bridge'

**ITM Coordinates**: 662189 , 711028

**Latitude and Longitude**: 53.146132, -7.070383

#### **5.3 Survey Results**

A site inspection was carried out on Tuesday, 3 September 2024, by Ian Russell of Archaeological Consultancy Services Unit (ACSU) Ltd.

The Pass Bridge is a five-arch road bridge over the River Barrow (Plates 1–2), which was built c. 1750, although there may also have been an earlier iteration of the bridge. It is constructed of roughly coursed, undressed limestone blocks, with triangular cut-waters (Plates 3–16). It is recorded as approximately 40m in length and 4.1m in width. The five arches of the bridge increase in height towards the middle (Plates 4–5), giving rise to a strongly humped deck that is also relatively narrow, meaning this bridge requires a traffic light system (Plate 3).

Each arch ring is composed of cut-stone voussoirs (Plates 17–18) and the stone soffits are rendered (Plates 15 and 18). The parapet wall has flat, slightly rounded concrete coping that changes to upright or vertical cut-limestone blocks just before the final pier/cut-water on both the east and west sides (Plates 24, 26, 27 and 29). This change also corresponds to a slight increase in the height of the parapet wall (Plates 4–5). This upper course of upright or vertical blocks also extends over the approach walls on both sides of the bridge, which

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title: Ar	Architectural Impact As	Page 20 of 24			

consist of roughly coursed limestone blocks (Plates 23 and 25). On the east side of the bridge, the north wall also curves down where it is joined by a lower approach wall (Plate 29). This is the only area where this feature was observed.

#### Condition

Much of the original fabric remains, although it has been rebuilt in places, repointed and the bases of the piers are encased in concrete as part of previous improvement works (Plate 16). Between 1926 and 1934, the River Barrow was the subject of an arterial drainage scheme, with 210 km of main rivers and tributaries and 175 km of smaller drains deepened and widened to improve conveyance (Shaffrey and Kehoe 2020). The concrete could date from this period, but this would need to be verified. The abutment/side wall on the west side of the south face also appears to have been repaired in the past (Plates 8 and 21). A modern water treatment or testing facility was also constructed in this area in the past, including steps, metal railing and a concrete pillar (Plates 8, 12 and 21).

In recent times, the cut-stone coping to the north parapet wall on the west side of the bridge has been damaged and is now missing (Plate 26). This damage is not visible on Google Earth imagery dating to May 2023 (Figure 11). This has also impacted the adjacent cut-water, which shows extensive cracking (Plate 27).

Areas of vegetation growth, including lichens, moss and ivy, were also observed on the bridge, particularly around the base of the piers, on the spandrels, abutments and along the parapet, including in the area of the missing coping and damaged cut-water (Plates 19 and 20).



Figure 11: North wall and parapet on west side of Pass Bridge still intact (May 2023 Google Earth street view image)

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLORICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact Assessment: Pass Bridge Rehabilitation Project, Monasterevin, Co. Kildare		Page 21 of 24		

#### 6. ARCHITECTURAL HERITAGE IMPACT ASSESSMENT

This section addresses the impact of the proposed works relating to the Protected Structure and RMP site, having regard to compliance with statutory policies, designations and guidance as outlined in Section 3 of this report.

Repair and reconstruction to the masonry walls, including the damaged coping on the approach wall, parapet and cut-water, will alter the fabric of the structure, however, these works are necessary to minimise further damage, particularly in the area where the wall core is exposed to water penetration and therefore at risk for further deterioration. These represent localised invasive work but will be designed to minimise impact, both visually and physical, by using appropriate materials that are compatible with the existing historic fabric of the bridge. Conservation best practice guidelines should be adhered to for all repair and reconstruction works.

The clearing of vegetation from the parapets and spandrels is also a necessary removal alteration as it may be hiding additional structural damage as well as increasing existing cracks, particularly regarding plants with woody roots such as ivy. The removal of vegetation without proper consideration can also increase the risk of masonry collapse. All vegetation removal should therefore be carried out in accordance with best conservation practice guidelines and advice. The latter includes the 2010 advice series by the then Department of Environment, Heritage and Local Government (e.g. *Ruins: The Conservation and Repair of Masonry Buildings*).

The proposed works include alteration to the soft verges on both sides of the carriageway pavement. If the tarmac is to be removed during any such works (or there is any other ground disturbance to any of the areas adjacent the bridge) it is recommended that the work is monitored by a suitably qualified archaeologist under licence from the Department of Housing, Local Government and Heritage. This is to ensure that any earlier road surface or structures are recorded. Should such features be uncovered, further mitigation may be sought by the National Monuments Service.

#### 7. RECOMMENDATIONS

Pass Bridge is protected by both the National Monuments Acts 1930–2014 and the Planning and Development Acts 2000 (as amended). Undertaking work on such sites, including vegetation removal, requires permission that will be accounted for by the Section 177 application to An Board Pleanála (if such an application is not progressed, however, such work may require the submission of a Section 57 declaration

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:		I Impact Assessment: Pass Bridge Rehabilitation Project, Monasterevin, Co. Kildare			

to the Planning Authority and a Section 12 notification to the Minister for Housing, Local Government and Heritage).

All work should be completed in accordance with conservation best practice guidelines. If there is any ground disturbance to any of the areas adjacent the bridge this may require monitoring by a suitably qualified archaeologist working under licence from the Department of Housing, Local Government and Heritage. Should any archaeological features be exposed, further mitigation may be sought by the National Monuments Service.

	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As	ssessment: P Ionasterevin	Page 23 of 24		

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	No:	PM-SF-170	Version:	01	Effective Date:	01.01.24
ACSU ARCHAEOLOGICAL CONSULTANCY SERVICES UNIT	Title:	Architectural Impact As	ssessment: F Ionasterevin	Page 24 of 24		

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Plate 1: General view of Pass Bridge, looking south, with Barrow Bridge visible in background



Plate 2: General view of Pass Bridge, looking north



Plate 3: Plan view of Pass Bridge





Plate 4: North-facing elevation



Plate 5: South-facing elevation





Plate 6: Detail of north-facing elevation, east side



Plate 7: Detail of north-facing elevation, west side





Plate 8: Detail of south-facing elevation, west side



Plate 9: Detail of south-facing elevation, east side



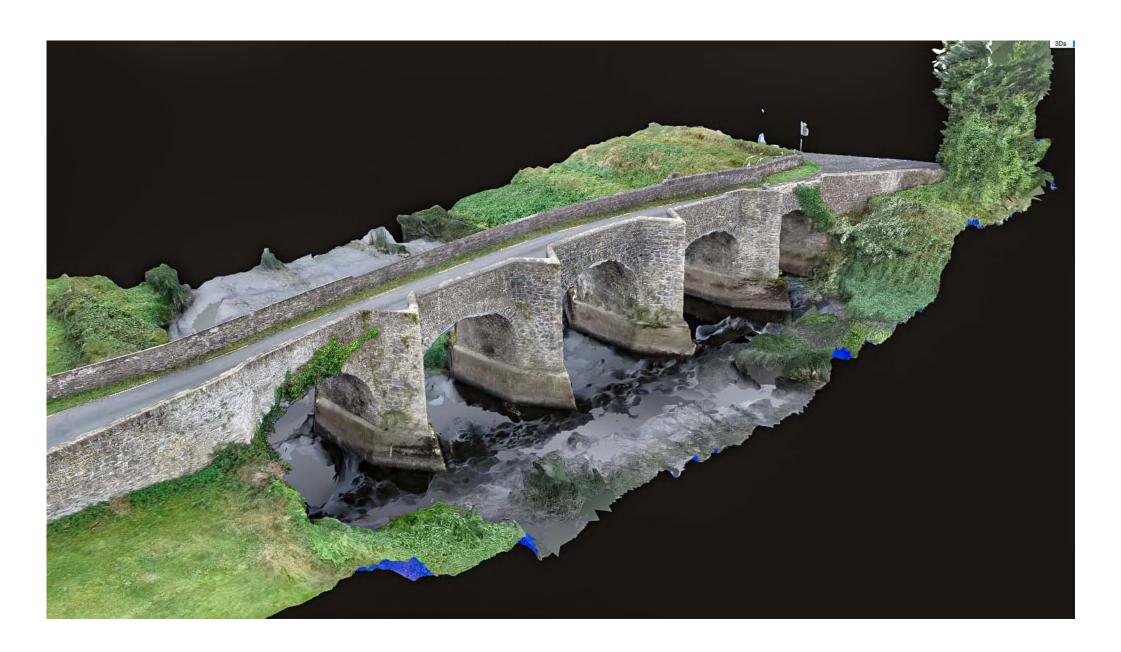


Plate 10: North-facing elevation, oblique view looking southwest



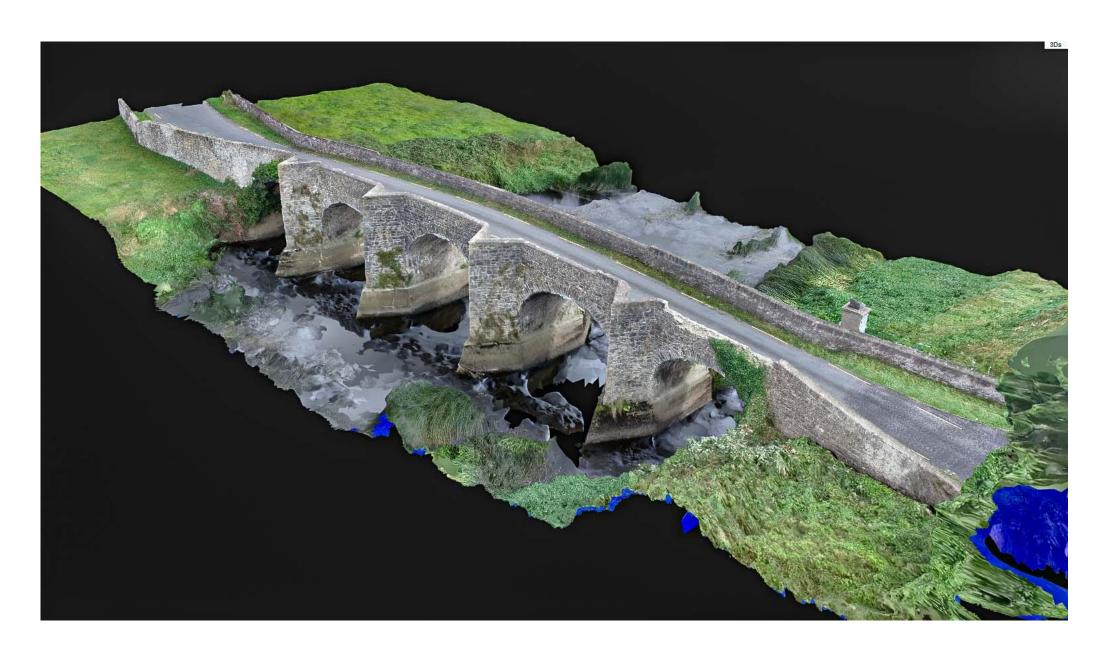


Plate 11: North-facing elevation, oblique view looking southeast





Plate 12: South-facing elevation, oblique view looking northeast





Plate 13: South-facing elevation, oblique view looking northwest





Plate 14: View of triangular cut-waters on north-facing elevation



Plate 16: Close-up of concrete base of triangular cut-water/pier



Plate 15: View of triangular cut-waters on south-facing elevation, with rendered soffits visible



Plate 17: Detail of voussoirs on north-facing elevation





Plate 18: Detail of voussoirs on south-facing elevation, with rendered soffit visible



Plate 20: Detail of abutment and side wall on east side of north-facing elevation



Plate 19: Detail of abutment and side wall on west side of north-facing elevation



Plate 21: Detail of abutment and side wall on west side of south-facing elevation





Plate 22: Detail of abutment and side wall on east side of south-facing elevation



Plate 24: Detail of cut-stone coping on parapet wall and triangular cut-water



Plate 23: View of bridge deck, looking northeast, showing parapet walls with cut-stone coping



Plate 25: Approach walls on west side of bridge, looking northeast





Plate 26: Detail of recent damage to north approach wall on west side of bridge



Plate 28: Approach walls on east side of bridge, looking southwest



Plate 27: Cracking visible in triangular cut-water in north wall on west side of bridge



Plate 29: Detail of masonry in north approach wall on east side of bridge