Architectural Heritage Impact Assessment
Bruree Bridge, Bruree, Co. Limerick
for Punch Consulting Engineers / Limerick City & County Council

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1.0	23.09.2025	PH / CO	KMc / GOC	KMc / GOC

Inspection

JCA Architects visited Bruree Bridge, Co. Limerick in September 2025. Use of digital, visual, photographic and measured surveying was conducted during these visits and used to form this assessment.

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1.0 Introduction

Jack Coughlan Architects were appointed by Punch Consulting Engineers to produce this Architectural Heritage Impact Assessment for the proposed repairs at Bruree Bridge, Bruree, Co. Limerick in response to a request for further information from An Coimisiún Pleanála dated 26/06/2025. This report will respond to Point 1, Built Heritage – Protected Structure, of that request.

This report was prepared by Paul Higgisson MRIAI (RIAI Architect Accredited in Conservation at Grade 3), Christopher Olden MRIAI (RIAI Architect Accredited in Conservation at Grade 3), and Gareth O'Callaghan MRIAI (RIAI Grade 1 Conservation Architect).

Figure 1: *Satellite View of Bruree with the Bridge Circled (Google Maps)*

1.1 Location and Heritage Protection Status

The bridge is located in the town of Bruree, Co. Limerick, in the south-east of the county and seven kilometres north-west of Kilmallock. The bridge crosses the River Maigue and is the only crossing of the river in the town.

The bridge is listed on the Limerick City and County Council's Record of Protected Structures (RPS Reg. No. 1039) and is also included in the National Inventory of Architectural Heritage's survey for Limerick (Registration Number 21804008). There it is a structure of Regional significance with Architectural, Scientific, and Technical special interest.

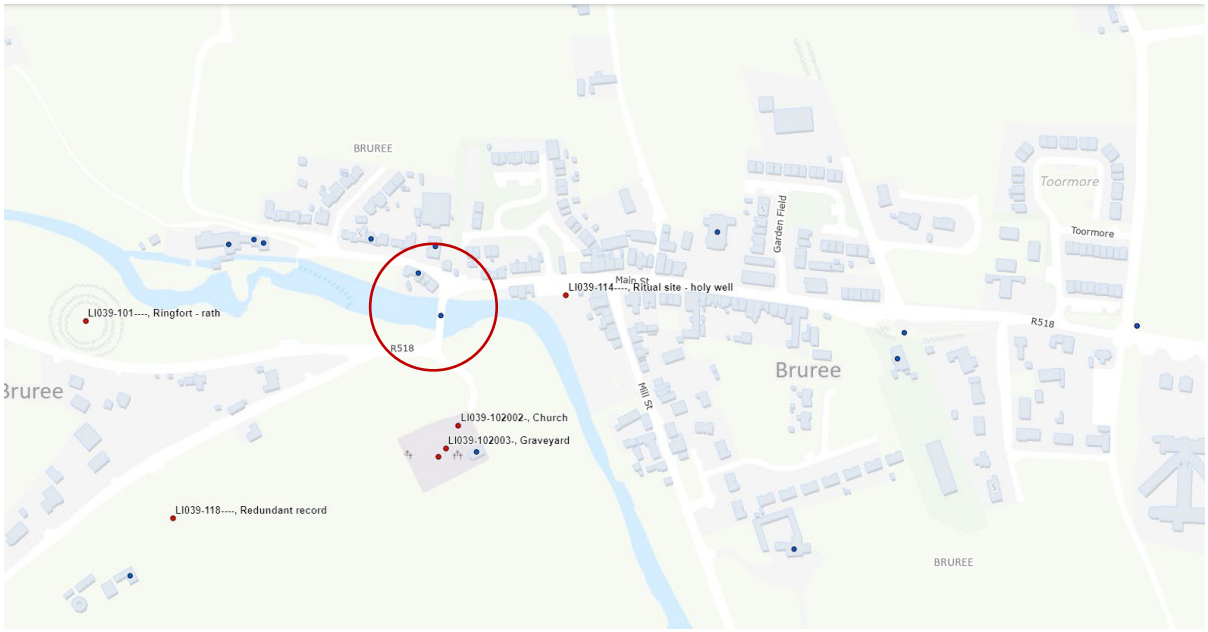

Figure 2: *Architectural Heritage Map indicating NIAH Structures (Blue Dots indicating Structures on the NIAH, Red Dots indicating Site & Monuments Record entries) (Heritage Maps)*

2.0 Historical Background

Bruree bridge was built c. 1800 and appears on the earliest OS Maps. The bridge is still the only crossing point of the River Maigue located downstream of a flour mill and upstream of a tuck mill. The town of Bruree, while small, has had significance in Irish history as the former alternative capital of the ancient Kings of Munster, it played a role in both the War of Independence and Civil War, and is the birthplace of Catherine Coll, mother of Éamon de Valera. The statesman was raised in Bruree. The bridge is present on all editions of the OS Maps with the 25 Inch map, surveyed 1900, showing 6 no. cutwaters.

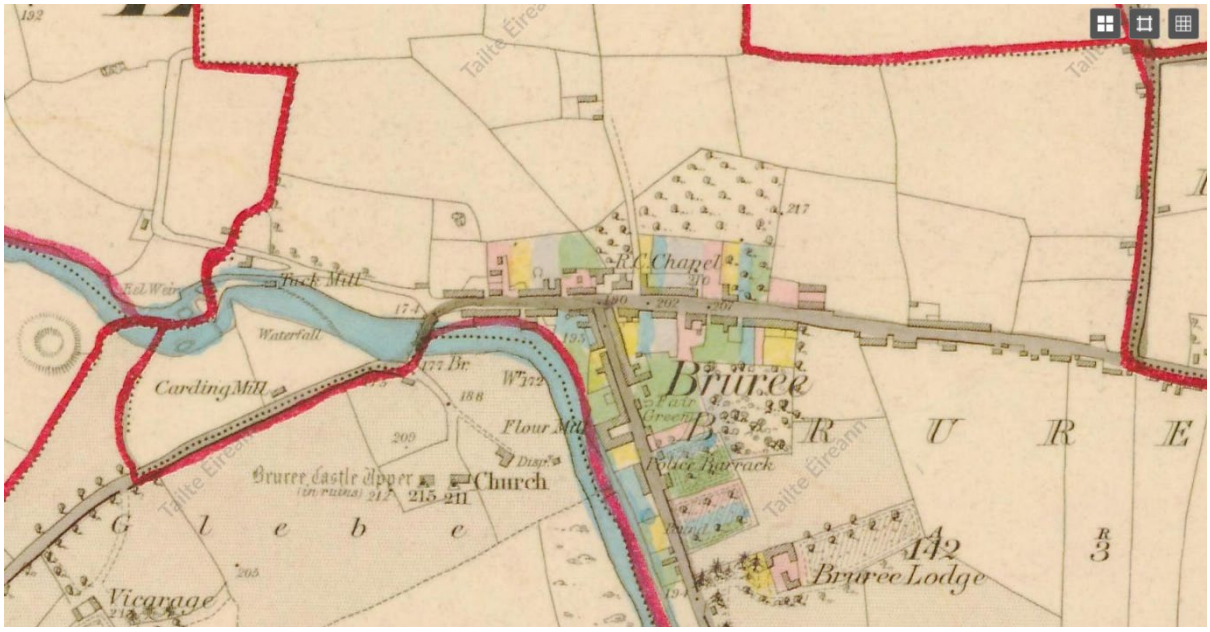

Figure 3: *6 Inch First Edition LK039, Survey Date: 1839, Publication Date: 1844 (OSI).*

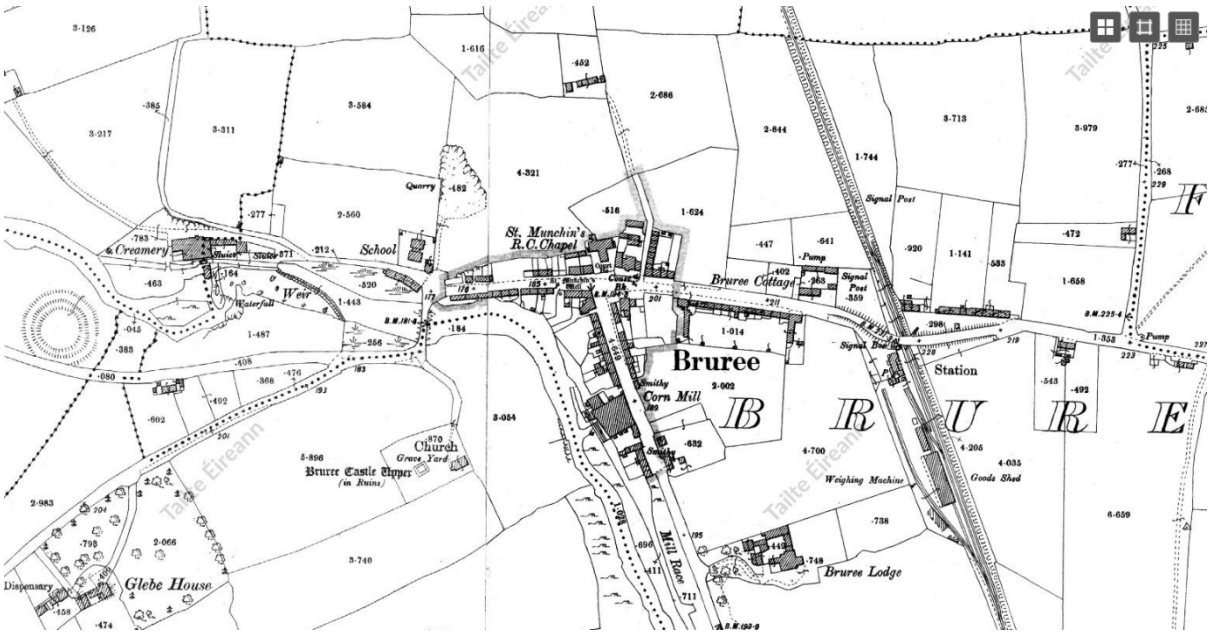

Figure 4: *25 Inch LK039-13, Survey Date: 1900, Publication Date: 1901 (OSI).*

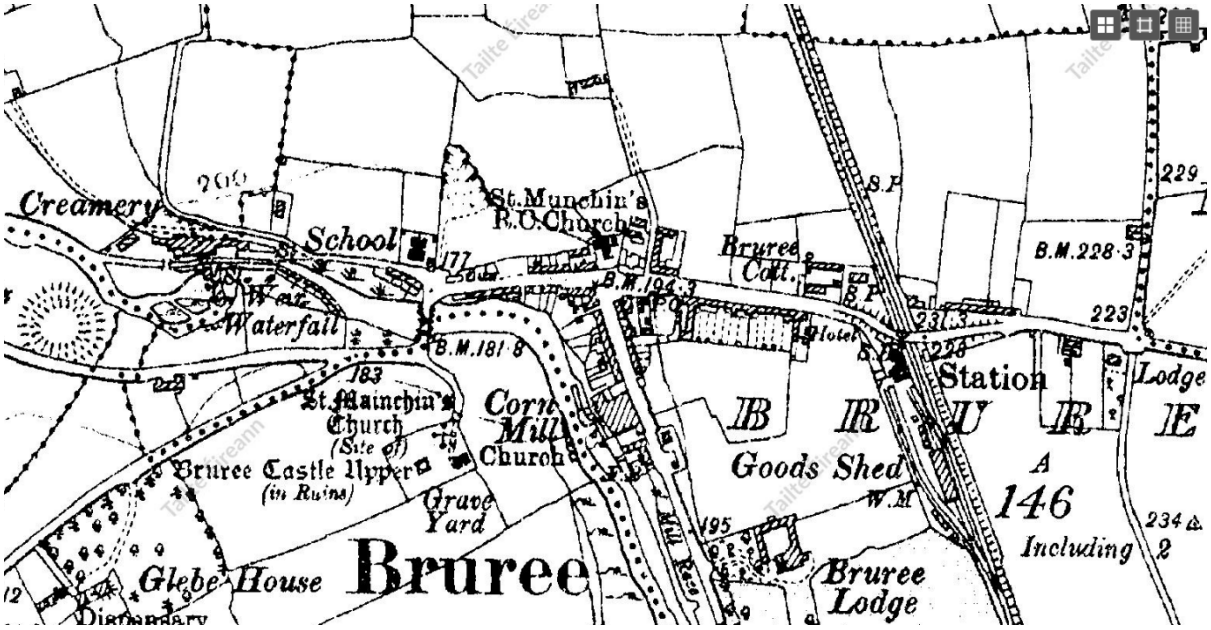

Figure 5: *6 Inch Last Edition LK039, Levelled Date: 1920, Publication Date: 1924 (OSI)*

Figure 6: *Bruree Bridge from the west with the town in the background (Irish Examiner April 1936)*

3.0 Current Description

The bridge is constructed of rubble limestone with 7 no. arches with voussoirs and 6 no. piers. Parapet walls to the bridge are capped in concrete and there is cementitious pointing used throughout with vegetation growth prominent of the bridge walls particularly to the east elevation. The concrete capping is cracking and lost in parts with further vegetation growth to the tops. The piers have cutwaters to both elevations of limestone construction with concrete foundations encasing each pier. The tops of the cutwaters to the upstream elevation are concrete capped with the 2 no. most northerly having suffered damage. The downstream elevation of the cutwaters have been supplemented in concrete to support a pipe.

The NIAH describes the bridge as follows:
Seven-arch bridge over river, c.1800. Rubble limestone walls with triangular cutwaters having domed pyramidal capping. Series of seven round arches with voussoirs. Sited spanning River Maigue.

4.0 Assessment Methodology

The site was visited by JCA Architects in September 2025 in specific relation to this project. Once information resulting from the historical analysis and physical inspection of the structures and site was compiled, the character of the historic structure and potential risks to its character were determined.

This impact assessment entails four stages:

1. A desk-top review of relevant documents relating to the site's history.
2. A field survey of the structure now surviving within the proposed development area.
3. An evaluation of the architectural heritage significance of this structure.
4. An assessment of the impact of the proposed development on the special heritage significance of the site.

1. Desktop Study

The historical aspects of the site's development were ascertained using primary sources including maps and historic photographs of the dwelling from various periods since its construction.

2. Field Survey

A full survey of the site was carried out by JCA Architects in September 2025. This entailed the examination, description and photographing of all relevant structures within the development site for three reasons: (1) to verify what was already known about its built heritage, (2) to update this information to take account of any physical alterations to the site's structures, and (3) to fill in any gaps in our knowledge of the site, such as previously unrecorded features.

4.1 Assessment of Impact Methodology

An evaluation was made of the likely impacts of the proposed development upon the heritage characteristics of the historic structure. Changes to the site's visual attributes could potentially arise from:

- Indirect disturbance to the historic visual context of the Protected Structure.
- Direct physical interventions to the existing structure, e.g. piecemeal demolitions, new extensions, and the replacement of existing fabric, fixtures and fittings.

The magnitude of these impacts can range from 'major' in the case of drastic alterations or demolitions, to 'negligible' or 'none' where little or no change will ensue as a result of the impact. Such impacts can either be 'beneficial' or 'adverse' depending on whether the heritage character of the feature being impacted upon is enhanced or degraded as a result. A 'neutral' impact will be neither beneficial nor adverse.

- **Major:**
  Beneficial - Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality.
  Adverse - Loss of resource and/or quality and integrity of resource; severe damage to key attributes.

- **Moderate:**
  Beneficial - Benefit to, or addition of, key attributes; improvement of attribute quality.
  Adverse - Loss of resource but not adversely affecting integrity; partial loss of/damage to key attributes.

- **Minor:**
  Beneficial - Minor benefit to, or addition of, one or several key attributes; some beneficial impact on attribute or a reduced risk of negative impact occurring.
  Adverse - Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one or several key attributes.

- **Negligible:**
  Beneficial - Very minor benefit to or positive addition of one or more attributes.
  Adverse - Very minor loss or detrimental alteration to one or more attributes.

- **None:**
  No loss or alteration of attributes; no observable impact, i.e. neither beneficial nor adverse.

The significance of an impact will depend on its magnitude and the heritage value of the feature being impacted upon. It can range from 'neutral', through 'moderate' to 'very large'. Thus, a major negative impact on a feature of very high heritage value will have a significantly large adverse effect, whereas the same impact on a feature of negligible value will be relatively insignificant. For the purposes of this analysis, the levels of impact significance are defined as follows:

- **Very large:**
  Only very adverse effects are normally assigned this level of significance. They are generally, but not exclusively, associated with sites of international, national or regional importance that are likely to suffer a most damaging impact and loss of integrity. However, a major change in a site or feature of local importance is not precluded from this category.
- **Large:**
  These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the planning process.
- **Moderate:**
  These beneficial or adverse effects may be important but are not likely to be key factors in the planning process. Their cumulative effects may, however, be relevant if they lead to an increase in the overall adverse effect on a particular feature.
- **Slight:**
  These beneficial or adverse effects may be raised as local factors but are unlikely to be a critical issue in the planning process.
- **Neutral:**
  No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

The duration of the impact is also of relevance. Short-term impacts upon a site's built heritage may arise during the construction phase of a development. There is likely to be long-term residual impacts as well once the development is completed and the site operational. The various permutations of 'magnitude of impact' and 'heritage value' will result in the following impact significances:

Heritage Value	Magnitude of Impact				
	None	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/ Large	Large/Very Large	Very Large
High	Neutral	Slight	Slight/Moderate	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/ Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/ Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/ Slight	Neutral/ Slight	Slight

5.0 Assessment of Significance of Existing Site

The NIAH appraisal of the bridge as follows:
A solidly-constructed bridge forming an attractive landmark in Bruree with its seven arches making a pleasing visual statement at a crossing over the River Maigue.

6.0 The Proposed Development

As evidenced in the attached Photographic Record the bridge is displaying normal signs of aging with minor flaws developing. These primarily are as a result of lost and inappropriate cementitious pointing which is contributing to vegetation growth. It is proposed to remove and treat the vegetation growth and repoint the bridge in more appropriate lime based mortars.

In terms of structural repairs structural stitching using stainless steel and pattress plates are proposed. Stitching will be bedded using lime mortars while the pattress plates are surface mounted.

Lost sections of stonework are proposed to be repaired using salvaged sections of stone from the riverbed if possible or as close a match. These will be bedded in lime mortars and capped in a limecrete mix as required.

Railings are proposed to the internal side of both parapet walls to the entire length of the bridge. The railings will be to a height of 1100mm set in a new concrete rubbing strip 200mm wide.

6.1 Proposed Scope of Works

1.0 Stone Cleaning & Vegetation Removal.

1.1 Carefully remove vegetation and organic build up from the masonry bridge, ensuring damaging root structures of heavier growth are fully removed, this may require local dismantling of and rebuilding of existing stonework. Sporadic lighter growth to be handpicked. Apply approved biocide / herbicide treatment.

1.2 Low pressure steam wash, DOFF System or equivalent to remove any Debris and Loose Organic Growth may be considered.

2.0 **Stone Pointing**

Minor and Local Pointing Repairs to be carried out where mortar has been lost or damaged.

2.1 Selective and localised areas of repointing to be carried out with lime mortars. The existing mortar will act as a guide for the new mortars.

2.2 Raking out will commence mid-joint and work outward toward the arrises. Joints shall be raked out to a minimum depth of 25 mm or 1½ times the width of the joint, whichever is greater.

2.3 All debris and dust are to be removed from the raked joints with stiff bristle brushes. A small engraving tool is to be used to remove any remaining mortar not removed by the pneumatic tools. All joints must be squared to ensure a good contact between the repointing mortar and surrounding stone.

2.4 Pointing style will be a struck flush joint. Strap pointing or recessed styles should not be used.

2.5 The mortar repair specification, if not based on historic mortar analysis (ie any surviving early mixes), should be prepared using hydraulic lime NHL 2 or 3.5. 1 part lime to 2 ½ parts aggregate. The aggregate should be a mixture of clean sharp sand and 6mm grit (graded 5mm downwards).

2.6 Pinning stones: allow for approx. 3 no. per sqm. across all areas to be repointed. This is preferable to packing out / building out a wide joint with mortar.

2.7 All raked joints shall be wetted prior to repointing. The repointing mortar is to be well compacted into the joints using a suitable pointing iron.

2.8 The joint is to be finished to a flush finish where arises are sharp and in good condition.

3.0 Stone Reinstatement / Replacement (Repairs to Cutwaters)

Collapsed Cutwater Nos. 5 & 6 to be repaired using fallen limestone, if found, and bedded in appropriate lime based mortars. New concrete limecrete capping to match existing cutwater geometry. Where new ashlar limestone are required,

3.1 Salvaged Stone from retrieved from riverbed to be stored for reinstatement.

3.2 Masonry to be reinstated with NHL 3.5 mortar.

3.3 New Cut Stone in Limestone to best match existing.

3.4 Cut Stones to be Carved, Dressed and Finished to match Existing Details.

3.5 Stone Samples to be provided to ensure best match.

3.6 Cutwater capping to be formed with limecrete mix -2 parts limecrete aggregate to 1 part NHL 5, adding sufficient water to make a stiff but workable mix. Reinforcement fibres are recommended. (1 bag per tonne of aggregate).

4.0 Stitching

4.1 Stainless steel stitching to be bedded in lime based mortars.

7.0 Method Statement

Generally, the bridge is undergoing repairs that are necessary in its maintenance and preservation. These will be done to conservation best practice using repair techniques over replacement where possible. Established principles of Conservation Philosophy and Conservation Best Practice are fundamental to the proposed retention and repair of existing fabric. A principle of minimum intervention will be followed regarding the existing fabric. The emphasis will be on the repair of existing fabric rather than replacement or removal with the below intent.

1. To maintain the character, setting and material quality of the building.
2. To repair and retain all historic fabric of importance.
3. To protect the structure's character as a living structure by maintaining its usage.
4. To preserve the constructional efficiency of the building. More structures and details may be preserved and retained using historic techniques combined with simple, modern, informed repair.
5. To adapt the building with minimum intervention and a maximum of conservation over restoration, under the guidance of the ICOMOS Venice Charter.
6. To spend wisely in terms of investment. Less money may be spent on minimal adaptation of the structure to new use which adds to the buildings economic value by not diminishing its historic value.
7. A principle of minimum intervention should be followed with regard to the existing building fabric. The emphasis will be on the repair of existing fabric rather than replacement.
8. Every effort should be made to match existing building technologies. This should extend to the use of traditional materials which will contribute to the long-term preservation of the remaining structure.
9. Where original finishes have been lost to the building and now modern finishes exist it may be allowed to make new interventions and finishes in a contemporary style sympathetic to the original intent.
10. The insertion of services will follow existing lines and voids to avoid the unnecessary drilling of existing fabric.
11. Where fabric is not original, a decision may be made to retain as existing as long as they broadly follow historic profiles and are deemed to be structurally sound and in reasonable condition.
12. All work will be undertaken under the supervision of a conservation specialist. All works to the building will be documented as they proceed.
13. The use of salvaged materials during restoration will be carefully documented.
14. Periodic recording of the work as it progresses should be undertaken as part of the conservation exercise, with this report updated and the final chapter produced on completion of works.

8.0 Physical and Visual Impacts of the Proposed Development on the Protected Structure

Conservation Repairs
Proposed conservation repairs to the bridge will be carried out to best practice. The majority of these repairs will see the removal of vegetation and concrete pointing which are not original or appropriate to the bridge. The replacement of pointing with lime based mortars will be a slight positive physical and visual impact.

Replacement of Missing Stone
Lost sections of stonework will be rebuilt using salvaged original stone in possible. This intervention will have a slight positive physical and visual impact.

Structural Repairs / Pattress Plates
The majority of repairs that are structural in nature will result in a neutral physical and visual impact and will be conducted to conservation best practice. Lime based mortars will be used throughout. The exception to this is the addition of pattress plates which will have a slight negative visual impact. Their impact is mitigated by their reversibility due to their surface mounting.

Railings
Metal railings are proposed to the internal side of the full length of both parapet walls. In their construction they will be metal set into concrete rubbing strips. The rubbing strips will be secured to the road surface buffered from the stone parapet walls themselves. Resultantly their physical impact will be neutral overall as the road surface, a modern and frequently renewed surface, will be the only element they are connected to. Visually the bridge has remained relatively unchanged in recent times. The introduction of a railing will have a slight/moderate negative visual impact. Due to the nature of their construction, they can be considered reversible which mitigates their impact.

Appendix 01 - Photographic Record

Figure 7
View of Bruree Bridge Upstream Elevation (East)

Figure 8
View of Bruree Bridge Downstream Elevation (West)

Figure 9
View to South from bridge surface.

Figure 10
View to North from bridge surface.

Figure 11
View to North from bridge surface.
Cementitious Capping to Upstream Elevation Capping

Figure 12
Concrete Capping to Cutwater. Common condition to all upstream cutwaters.

Figure 13
Upstream Cutwaters CW-01 to CW 04. Upstream Elevation with vegetation growth.

Figure 14
Damaged Cutwater 05 [CW-05]

Figure 15
Damaged Cutwater 05 [CW-05]

Figure 16
View to North of Splayed Arch AR-07 & CW-06.

Figure 17
Gap in Parapet where bridge ends, masonry wall continuing along road.

Figure 18
Downstream Cutwater CW-06 with concrete pier supporting existing cast iron watermain.

Figure 19
Downstream Elevation with cast iron watermain along elevation supported by concrete columns above masonry cutwater. Vegetation growth along elevation.

Figure 20
Damaged road surface.

Figure 21
View downstream from road surface and internal face of parapet wall with cementitious capping.

Figure 22
Section of masonry wall previously rebuilt with cement based mortars / capping. Damage to capping.

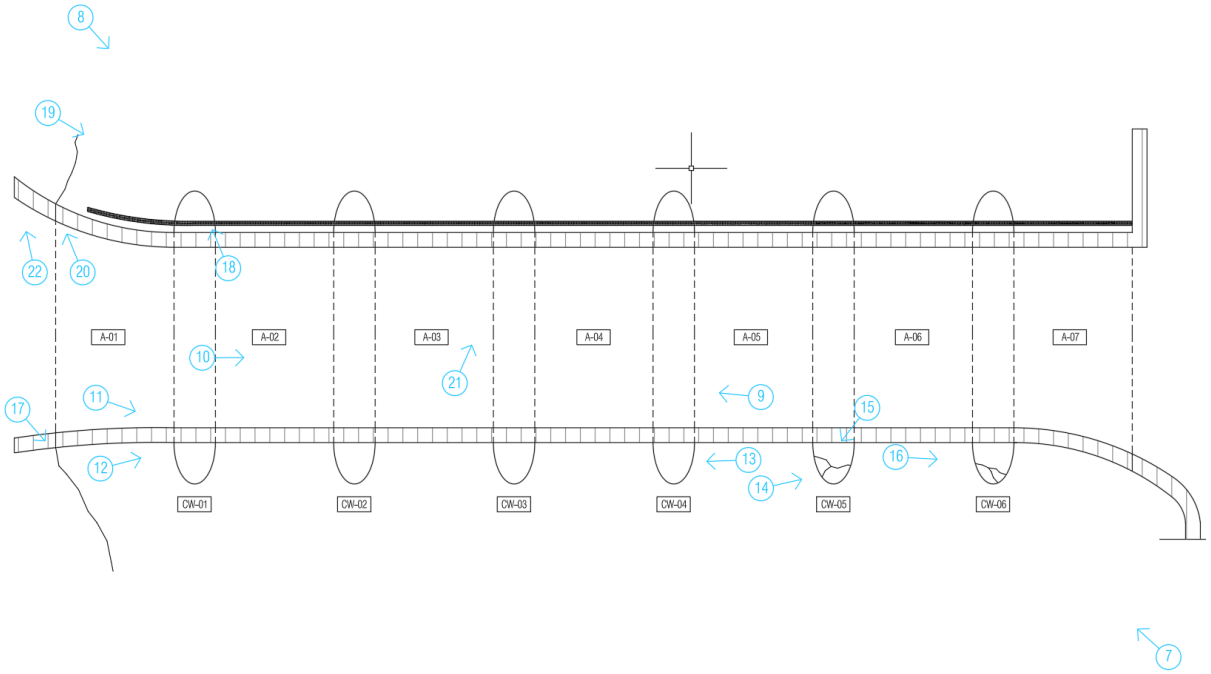

Figure 23: *Locations of Photographic Record Figures with direction of View.*

Appendix 02 -Drawing Register

SY 100 Bruree Bridge Condition Survey (Plans, Elevations Sections) Scale 1:100 @ A2