Trekenner Bridge, Cornwall
Archaeological Assessment

Cornwall Archaeological Unit

Report No: 2016R008

Trekenner Bridge, Cornwall

Archaeological Assessment

Client	Cormac Consultancy, CORMAC Solutions Ltd
Report Number	2016R008
Date	07/03/2016
Status	Final
Report author(s)	Peter Dudley
Checked by	Jo Sturgess
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Acknowledgements

This study was commissioned by Nicolas Hall, Cormac Consultancy and carried out by Cornwall Archaeological Unit, Cornwall Council.

The Project Manager was Jo Sturgess.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

Cornwall Archaeological Unit is a Registered Organisation with the Chartered Institute for Archaeologists

Cover illustration
Trekenner Bridge

Contents

Abbreviations

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
HER	Cornwall and the Isles of Scilly Historic Environment Record
LB	Listed Building
MCO	Monument number in Cornwall HER
NGR	National Grid Reference
OS	Ordnance Survey
WSI	Written Scheme of Investigation

1 Summary

Cornwall Archaeological Unit (CAU) was commissioned by Cormac Consultancy, CORMAC Solutions Ltd (Cornwall Council) to undertake an archaeological assessment of Trekenner Bridge, near Treburley, Cornwall (SX 33908 77999).

The bridge is a Grade II Listed Building (LB number 1291058) which crosses the River Inny. It is a 'weak bridge' with a limited capacity for carrying modern traffic so a strengthening programme is proposed by Cornwall Council.

Trekenner Bridge is an important early post-medieval bridge. The base of the bridge abutments and its piers are probably 16th century in date but the majority of the superstructure was built in the mid-19th century, following flood damage caused in 1847. The parapets have several phases of later rebuilding dating to the 20th century.

There are two phases of proposed works. The first is a geotechnical investigation, the results of which will inform the later strengthening works.

This report highlights the need for Listed Building Consent to be granted before any strengthening works are undertaken and makes a number of management and mitigation recommendations. These include the removal of tree saplings from the parapets, the careful undertaking of the geotechnical investigation, for the strengthening works to be designed with the historic environment in mind and for future mitigation undertaken as an archaeological watching brief.

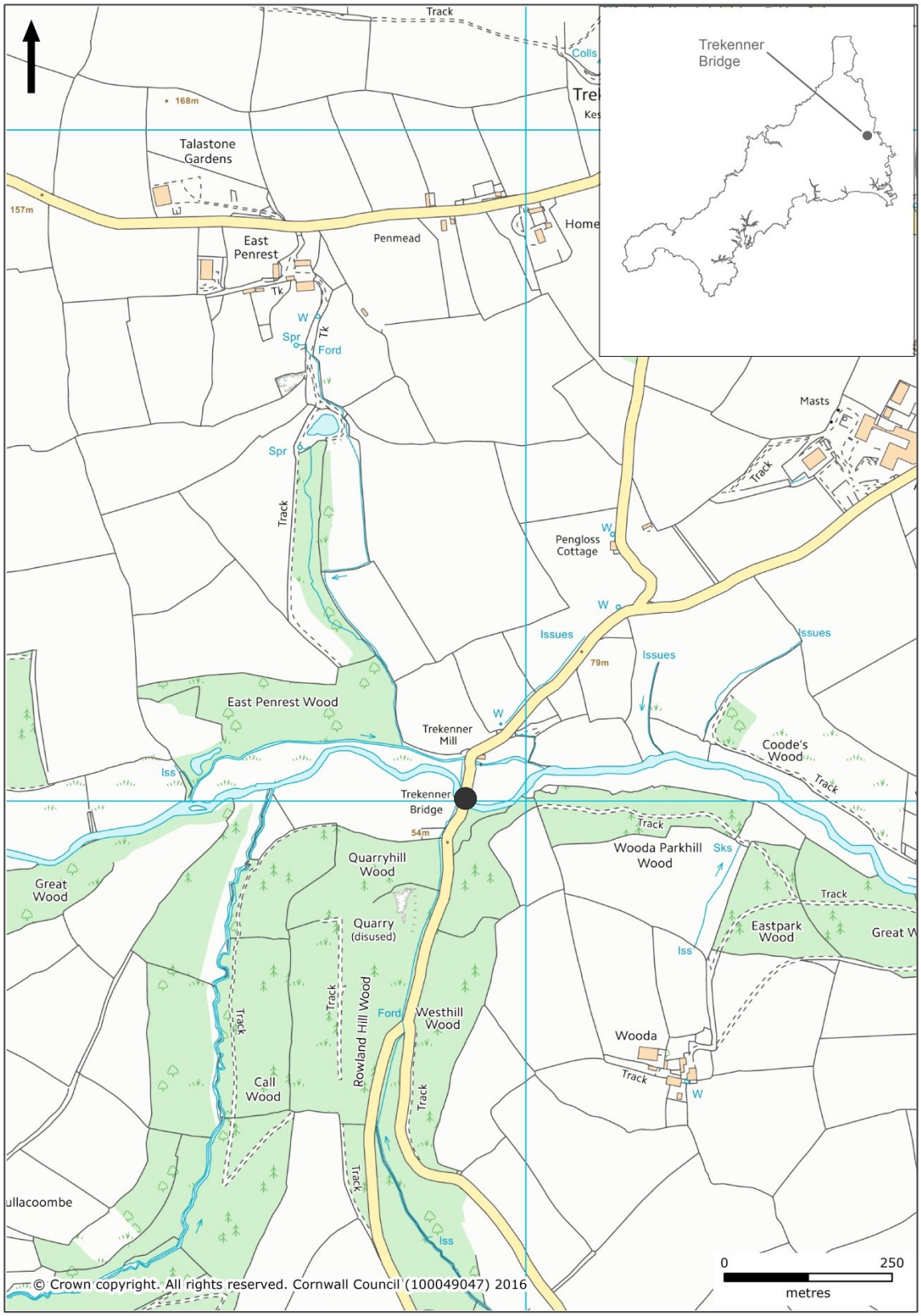

Fig 1 Location.

2 Introduction

2.1 Project background

Cornwall Archaeological Unit (CAU) was commissioned by Nicolas Hall of Cormac Consultancy, CORMAC Solutions Ltd (Cornwall Council) to undertake an archaeological assessment of Trekenner Bridge, near Treburley, Cornwall (SX 33908 77999).

The bridge is a Grade II Listed Building (LB number 1291058) which crosses the River Inny. It is a 'weak bridge' with a limited capacity for carrying modern traffic so a strengthening programme is proposed by Cornwall Council.

The scheme requires an initial geotechnical investigation.

An earlier strengthening scheme was planned by Cornwall Council in 2000 but it was not carried out. As part of the preparation for the earlier scheme an archaeological and historical assessment was undertaken (Gossip 2000; see Appendix 2).

In anticipation of the current proposals Phil Copleston, Senior Development Officer Historic Environment, Cornwall Council, recommended that an updated archaeological assessment should be carried out prior to any works. A Written Scheme of Investigation (WSI) for the assessment was agreed on 15/01/2016 (Appendix 1).

2.2 Aims

The purpose of this assessment is to:

- Update the assessment carried out by Gossip (2000).
- Provide an assessment of the archaeological and historical importance of the bridge.
- Assess the archaeological impact of the strengthening scheme.
- Give recommendations for any necessary further investigation and recording.

2.3 Methods

2.3.1 Desk–based assessment

This project used and updated the assessment carried out by Gossip (2000).

Sources studied for this comprised:

- Cornwall and Isles of Scilly Historic Environment Record
- Published sources including local histories
- Charles Henderson and Henry Coates *Old Cornish Bridges and Streams* (1928)
- Historic maps, including
    - Joel Gascoyne's map of Cornwall (1699)
    - Thomas Martyn's map of Cornwall (1748),
    - Ordnance Survey (OS) 1-inch survey (*c*1810)
    - Parish Tithe maps (*c*1840),
    - OS 1:25 inch maps, 1st and 2nd Editions (*c*1880 and *c*1907)
- Modern OS maps

2.3.2 Fieldwork

Fieldwork was undertaken on Thursday 28th January 2016. The weather was variable with sunshine and showers. The level of the River Inny was high with an estimated 1.3m of clearance between the water and the apex of the bridge arches.

The purpose of the visit was to assess survival of historic fabric of both the bridge and surrounding area and identify impacts that the strengthening work might have.

Fieldwork was undertaken using a digital photographic survey together with written notes.

Photographic recording comprised colour photography using a digital Single Lens Reflex camera (with a resolution of 12 million pixels). Clear views of the bridge elevations were difficult from the road and flanking access ways on the southern side of the bridge. Light levels were also difficult due to the combination of the unpredictable

weather conditions and the high coniferous tree cover immediately to the south of the bridge.

2.3.3 Post-fieldwork

During this phase the results of the fieldwork were collated for archiving and the results of the desk-based assessment and fieldwork drawn together in this report.

3 Location and setting

(See Fig 1)

Trekenner Bridge crosses the River Inny (a major tributary of the River Tamar). It carries a minor road that links the settlements of Trekenner and Treburley to the north with Bray Shop to the south.

The bridge is located in a relatively isolated area, 65m to the south of Trekenner Mill.

Low-lying meadow forms the northern side of the river. To the south east of the bridge the land is steep sided and wooded but to the south west it is low-lying meadow.

4 Designations

4.1 National

The bridge is statutory-designated as a Grade II Listed Building (LB number 1291058).

4.2 County

The bridge is recorded in Cornwall Council's Historic Environment Record (Monument Cornwall 9741). This is a non-statutory designation.

In terms of landscape designations the area is within the Inny Valley & Lawhitton AGLV (Area of Great Landscape Value) and immediately to the south of the bridge Call and Quarryhill Woods are part of the Call & Westhill Woods County Wildlife Site.

5 History

Adapted from Gossip (2000), see Appendix 2.

Trekenner Bridge is believed to be 16th century in date when it was as a 'County Bridge'. These were bridges considered important enough for their maintenance to be the affair of the County Court, with repairs being the responsibility of the Justices of the Quarter Sessions (Henderson and Coates 1928).

Although the known bridge dates from the 16th century, it is likely that a river crossing existed here at least as early as the medieval period, perhaps taking the form of a ford or an earlier bridge, for traffic using what is almost certainly a medieval route.

Joel Gascoyne shows Trekenner Bridge in his 1699 Map of Cornwall as does Thomas Martyn's 1748 map and the OS 1 inch map of *c*1810.

The 16th century bridge was damaged by a flood in 1847 which destroyed the three arches, although the original piers and cutwaters survived and were reused for the rebuilding. Henderson and Coates state that the arches were each 2 feet in span but this would have made them extremely small. The bridge had fallen into disuse with the construction of a new bridge at Woodabridge in 1836 to take the Launceston to Callington Road (Henderson and Coates 1928).

The bridge is clearly shown on the 1st (*c*1880) and 2nd edition (*c*1907) OS maps.

Both maps also record Trekenner Corn Mill to the north of the bridge. The mill is fed by a leat off the River Inny 470m to the west of the bridge. An overflow leat runs from the mill to enter the river close to the north west corner of the bridge.

6 Description

(See Fig 2-6)

Adapted from Gossip (2000).

The surviving bridge dates from the 16th century although much of the upper structure was rebuilt following the flood of 1847.

Trekenner Bridge has three arches separated by two piers. The piers taper to pointed ends, with those on the upstream side serving as cutwaters. The arches are of similar dimensions, being roughly 3m wide.

In elevation the bridge is of similar construction when viewed from either side. It is built from a mixture of quarried granite blocks and roughly hewn slate stones.

The majority of the superstructure (the arches and the parapets) is constructed from horizontally lain slate stones bonded with a hard greyish-white mortar, with some obvious areas of modern cement repointing. The copings mainly comprise slate stones vertically set in a similar hard mortar, irregularly interspersed with larger slate blocks.

Most of the lower part of the superstructure of the bridge, the piers and the bases of the abutments, are constructed from large dressed granite blocks. At least three granite blocks survive to act as springers for the two southernmost arches, with a single course of granite blocks for the northern arch (although visibility was difficult due to the height of the river). At the top of each arch is a dressed keystone in granite.

On the south eastern parapet there are two runs of granite coping stones. The northernmost run has large stones (typically 1m long) held to each other with iron ties. The northernmost granite has a drilled hole in its end suggesting that the copings continued in this fashion. Two granite blocks, in the second run, at the southern end of the downstream parapet have drill marks, typical of mid-19th century quarried masonry. However, it is likely that the granite blocks in the piers and abutments represent the earlier (16th century) bridge. Following its partial destruction by flood in 1847 it was rebuilt using slate.

The bridge is narrow (2.7m) and hump-backed. The bridge shape in plan is rather irregular, perhaps as a result of a haphazard or hasty rebuild. The route across the bridge is splayed on its north western and south eastern sides, most probably to create passing places for traffic using the bridge.

The north western parapet has a large number of tree saplings growing from it.

Next to the parapet on the southern side of the bridge there are splayed cobbled access ways on both banks which slope down to the river immediately south of the bridge (see Gossip, 2000; Appendix 2, fig 8). Both have rough cobbled surfaces formed by unhewn irregularly sized blocks of granite rubble but the edge with the river is partially formed by large rectangular blocks of granite. The ways allow easy access down to the river as well as channelling run-off from the road away from the bridge. The access ways were not recorded on historic OS maps and are late 20th century in date.

The modern road surface between the parapets comprises tarmacadam, and no indication is given of an earlier road surface.

7 Significance

Trekenner Bridge is an important early post-medieval bridge, hence its Grade II Listed status. Its piers and the bases of the bridge abutments are probably 16th century in date but the majority of the superstructure was built in the mid-19th century, following the damage caused in 1847. The parapets have several phases of later rebuilding, most probably repairs for damage caused by motor vehicles using the bridge.

8 Impacts

There are two phases of proposed works.

The first is an initial geotechnical investigation. This will require eight cores to be drilled into the bridge structure from carriageway level vertically down through the centre of

the pier/abutment until competent bedrock is encountered. Each pier/abutment will have two cores. The aim is to determine both the construction of the piers and abutments and the interface and level at which the pier or abutment terminates (N Hall, Cormac Consultancy engineer pers comm; see Fig 7).

The results of the geotechnical investigation will then inform the necessary strengthening requirements, which will be undertaken in a second phase. The impacts caused by the actual strengthening works cannot be assessed until a suitable methodology is chosen.

9 Recommendations/ Mitigation measures

- The north western parapet has tree saplings growing from it. Their roots will be penetrating into the bridge structure causing damage to the mortar and potentially dislodging stonework. It is recommended that the saplings should be cut and the stumps treated *in situ*. In future, the bridge could be routinely monitored and managed to prevent regrowth.

- The geotechnical investigation should be undertaken with minimal physical impact to the bridge structure, the flanking access ways and the overflow leat to the north west of the bridge.

- If geotechnical investigations are undertaken, the core logs should be kept to inform later archaeological mitigation.

- Following the results of the geotechnical investigation it is recommended that the proposed strengthening works are designed in consultation with Cornwall Council's Senior Development Officer (Historic Environment) within the Planning Team. Listed Building Consent may have to be applied for again but the Planning Team will be able to advise on this.

- The strengthening works should be designed to minimise the physical impact to the historic fabric of the bridge structure and to preserve the bridge's historic character.

- Due to the historic significance of the bridge it is recommended that an archaeological watching brief is undertaken during subsequent strengthening works. A watching brief will document the changes undertaken to the bridge and record any further historic components revealed by the works.

- Further photographic recording and historic building recording of the bridge may be required before strengthening works are started, at a time when water levels are lower and light levels better. Photography of the elevations would greatly benefit from access to the neighbouring farmland as the viewpoints from the road and flanking access ways do not provide an adequate angle of view.

10 References

10.1 Primary sources

Gascoyne, J, 1699. *Map of Cornwall*

Henderson, C and Coates, H, 1928. *Old Cornish Bridges and Streams*, Bradford Barton reprint 1972, Truro

Martyn, T, 1748. *Map of Cornwall*

Ordnance Survey, *c*1810. *1 Inch Map*

Ordnance Survey, *c*1880. *25 Inch Map,* First Edition

Ordnance Survey, *c*1907. *25 Inch Map*, Second Edition

Ordnance Survey, 2007. Mastermap Digital Mapping

Tithe Map and Apportionment, c1840. Parish of Lelant

Tithe Map and Apportionment, c1840. Parish of Stoke Climsland

10.2 Publications

Gossip, J, 2000. *Trekenner Bridge: Archaeological and Historical Assessment*, Cornwall Archaeological Unit (Report 2000R050), Cornwall Council

10.3 Websites

http://www.heritagegateway.org.uk/gateway/ English Heritage's online database of Sites and Monuments Records, and Listed Buildings

11 Project archive

The CAU project number is **146555**

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit.

Historic England/ADS OASIS online reference: **cornwall2-241138**

Fig 2 Looking south to the bridge from the direction of Trekenner Mill.

Fig 3 Looking north to the bridge. Note, the access way to the left (the right hand side one is not visible on this photograph)

Fig 4 West elevation from the southern side. The cobbled surface of the access way is visible beneath the water surface.

Fig 4 East elevation from the southern side.

Fig 5 The line of five granite coping stones on the south eastern parapet. Note, the iron ties joining the blocks and access way to the left.

Fig 6 Young saplings growing out of the north western parapet. Note, the overflow leat of Trekenner Mill to the left.

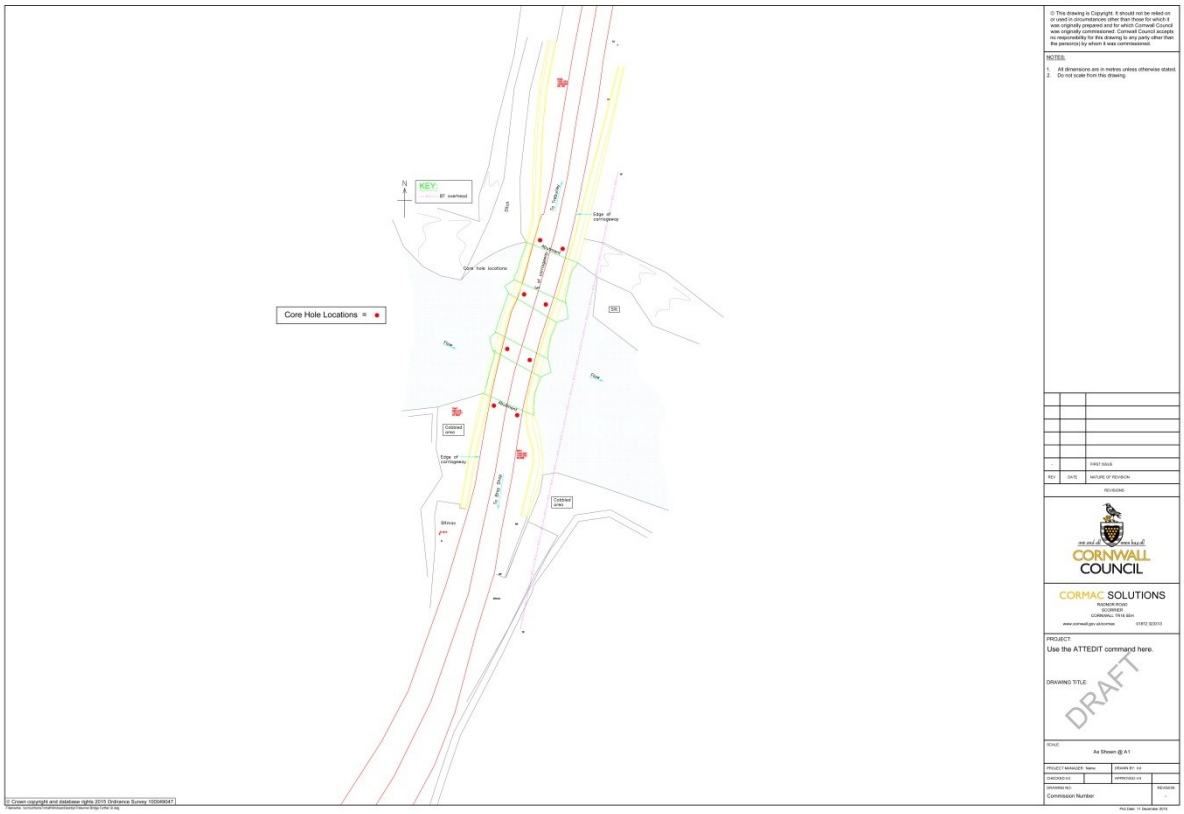

Fig 7 Indicative map of proposed geotechnical cores (Trekenner Bridge further GI-CC_A1_Frame).

Appendix 1: Written Scheme of Investigation (WSI)

Client: Cormac Consultancy, Cormac Solutions Ltd

Client contact: Nicolas Hall

Project background

In 2000 Cornwall Archaeological Unit carried out an archaeological assessment of Trekenner Bridge; this current phase of work aims to update the existing assessment in advance of upcoming strengthening works to the bridge.

Trekenner Bridge is a post-medieval packhorse bridge with three segmental arches. It spans the River Inny which forms the parish boundary here between Stoke Climsland and Lezant. The bridge carries a minor road from Trekenner to Bray Shop over the River Inny and is located at NGR: SX 3390 7700. Its entry in the Cornwall Historic Environment Record notes:

> MCO9741 Trekenner Bridge - Trekenner Bridge is a 16th century bridge that crosses the River Inny. It was abandoned in 1836 when the road from Launceston to Callington was carried over the River Inny by a new bridge at Woodabridge (Henderson and Coates 1928). All that survives of the original 16th century bridge after a flood in 1847 is the piers and cutwaters (Henderson and Coates 1928). In 1989 EH listed the structure and described it as roughly coursed slate-stone with granite and wedged slate coping. Granite voussoirs to the three segmental arches; two triangular cutwaters on either side and long irregular abutments.
>
> The Cornish Bridge Project states:

> "Three span bridge with single centred arches formed from granite and slatestone voussoirs with a large central keystone. The bridge and parapet are mostly slatestone with granite used at points of stress. The parapet has been rebuilt several times and is now capped with rough racking on end slatestone US (old), and large granite copings DS (old). Right side has been rebuilt and extended within the last few years". (Oxford Archaeology 2003).
>
> (Source: Heritage Gateway website www.heritagegateway.org.uk)

Trekenner Bridge is a Grade II listed building it has a limited carrying capacity for modern traffic weights so a strengthening programme is proposed by Cornwall Council. During the initial consultation with relevant parties, the Senior Development Officer, Historic Environment (Phil Copleston) recommended that an archaeological assessment should be carried out prior to any works. Cornwall Archaeological Unit was approached by Nicolas Hall, acting on behalf of Cormac Solutions Ltd (and Cornwall Council) to undertake the work. Following agreement of the costs this Written Scheme of Investigation was prepared to set out the approach, methods and standards to apply to the work.

Project extent

The archaeological assessment will cover the bridge which is located at NGR SX 3390 7700 and surrounding landscape.

Aims and objectives

The purpose of the assessment is to:

- provide an assessment of the archaeological and historical importance of the bridge
- assess the archaeological impact of the strengthening scheme
- give recommendations for any necessary further investigation and recording

Working methods

All recording work will be undertaken according to the Chartered Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording.* Staff will follow the CIfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology.* The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

The work will comprise a desk-based search of readily available sources, followed by a site visit. Results will then be archived, analysed and summarised in a report.

Desk-based assessment

A desk-based assessment will use and update the assessment carried out in 2000 (Gossip 2000). Sources studied for this comprised:

- Published source including local histories
- Charles Henderson and Henry Coates *Old Cornish Bridges and Streams* (1928)
- Historic maps, including
  - Joel Gascoyne's map of Cornwall (1699)
  - Thomas Martyn's map of Cornwall (1748),
  - OS 1 inch survey (c1810)
  - parish Tithe maps (c1840),
  - 1st and 2nd Editions of the OS 25 inch maps (c1880 and c1907)
- Modern maps
- Cornwall and Isles of Scilly Historic Environment Record

Fieldwork: assessment

The purpose of the visit is to assess survival of historic fabric of both the bridge and surrounding area and identify impacts that the strengthening work might have. This will be undertaken by means of a photographic and sketch survey, together with written notes.

Preparation for the survey will include:

- Preparation of drawings
- Risk assessment

A photographic record will be made to illustrate those areas that may be affected by strengthening works. General illustrative site photographs will also be taken.

Photographic recording will comprise colour photography using a digital SLR camera (with a resolution of 10 million pixels or higher).

CAU follows Historic England guidance on digital image capture and file storage (2014).

The photo record will comprise:

- General views.
- Examples of structural and architectural detail.

Methodology for the archive standard photography is set out as follows:

- Photographs of details will be taken with lenses of appropriate focal length.
- A tripod will be used to take advantage of natural light and slower exposures.
- Difficulties of back-lighting will be dealt with where necessary by balancing the lighting by the use of flash.
- A metric scale will be included in all views, except where health and safety considerations make this impractical.

Descriptive notes will be made to record condition, phasing and survival of historic fabric as well as identifying impacts and mitigation measures for the strengthening works.

Creation of site archive

To include:

- Digital colour photographs (stored according to HER guidelines).
- Completion of the Historic England/ADS OASIS online archive index.

Archive report

Results from the desk-study and the field visit will be collated and presented in a brief report.

The report will include:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Description of the resource
- Designations
- Statement of significance
- Recommendations for further archaeological work

- References
- Project archive index
- Supporting illustrations: location map, historic maps, plans, elevations, photographs

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be held in the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with CAU standards.

The archiving will comprise the following:

1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box.
2. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.
3. Digital data will be stored on the Cornwall Council network which is regularly and frequently backed up.

CAU uses the following file formats for stored digital data:

DOCX	Word processed documents
XLSX	Spreadsheets
PDF	Exports of completed documents/reports/graphics
JPG	Site graphics and scanned information
DNG or TIF	Digital photographs
DWG	AutoCAD drawings, measured surveys
MXD	ArcView GIS (electronic mapping) data
AI	Adobe Illustrator graphics

Timetable

The study is anticipated to be commenced during January 2016.

The archive report will be completed within a month of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by the Senior Development Officer (Historic Environment).

1. The SDOHE will monitor the work and should be kept regularly informed of progress.
2. Notification of the start of work shall be given preferably in writing to the SDOHE at least one week in advance of its commencement.
3. Any variations to the WSI will be agreed with the SDOHE, in writing, prior to them being carried out.
4. If significant detail is discovered, all works must cease and a meeting convened with the client and the SDOHE to discuss the most appropriate way forward.

Monitoring points during the study will include:

- Approval of the WSI

- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

References

English Heritage, 2006. *Understanding Historic Buildings: A guide to good recording practice.* English Heritage, Swindon

English Heritage, 2007. *Understanding the Archaeology of Landscapes: A guide to good recording practice.* English Heritage, Swindon

English Heritage, 2014. *(Draft) Guidance note on Digital Image Capture and File Storage.* English Heritage, Swindon

Gossip, J, 2000, *Trekenner Bridge- Archaeological and Historical Assessment*

Henderson, C & Coates, H, 1928, *Old Cornish Bridges and Streams*

Oxford Archaeology, 2003, *Cornish Bridge Project (Cornwall Event Report)*

Cornwall Archaeological Unit

Cornwall Archaeological Unit is part of Cornwall Council. CAU employs 16 project staff with a broad range of expertise, undertaking around 120 projects each year.

CAU is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

Standards

CAU is a Registered Organisation with the Chartered Institute for Archaeologists and follows their Standards and Code of Conduct.

http://www.archaeologists.net/codes/ifa

Terms and conditions

Contract

CAU is part of Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of CAU and will be presented in good faith on the basis of professional judgement and on information currently available.

Project staff

The project will be managed by a nominated Archaeology Projects Officer who will:

- Discuss and agree the detailed objectives and programme of each stage of the project with the client and the field officers, including arrangements for health and safety.
- Monitor progress and results for each stage.
- Edit the project report.
- Liaise with the client regarding the budget and related issues.

Work will be carried out by CAU field staff, with assistance from qualified specialists and sub-contractors where appropriate. The project team is expected to include:

Joanna Sturgess BA

Archaeologist with CAU, with a wide range of experience in recording historic buildings, landscapes, excavation and post-excavation. Past historic building works have included Cutmadoc Farmhouse, Lanhydrock; City Wharf, Truro; Harvey's Foundry, Hayle; Boswednack Serpentine works, Porthmeor farm and various mining sites. Other projects include Gwithian's past excavations, Lemon Quay excavation, Goonhilly Earth Station survey, Lower Boscaswell and Trevessa in West Penwith landscape surveys. Expertise includes archaeological use of CAD software and survey.

Peter Dudley BA MA, ACIfA

Archaeologist who works largely on landscape work, having obtained an MA in Landscape Archaeology. Peter worked on several large excavation projects in Cornwall, and previously in Ireland. He has undertaken several management plans for National Trust, Cornwall Wildlife Trust and others, and also worked for Cornwall's Historic Environment Countryside Advice Service (HECAS) for two years. Extensive local knowledge of west Cornish landscapes.

Report distribution

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client.

Copyright

Copyright of all material gathered as a result of the project will be reserved to Cornwall Archaeological Unit, Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

Use of the material will be granted to the client.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

CAU will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received CAU may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

CAU follows Cornwall Council's *Statement of Safety Policy*.

Prior to carrying out on-site work CAU will carry out a Risk Assessment.

Insurance

CAU is covered by Cornwall Council's Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £10m.

Jo Sturgess
Archaeology Projects Officer
14/1/2016

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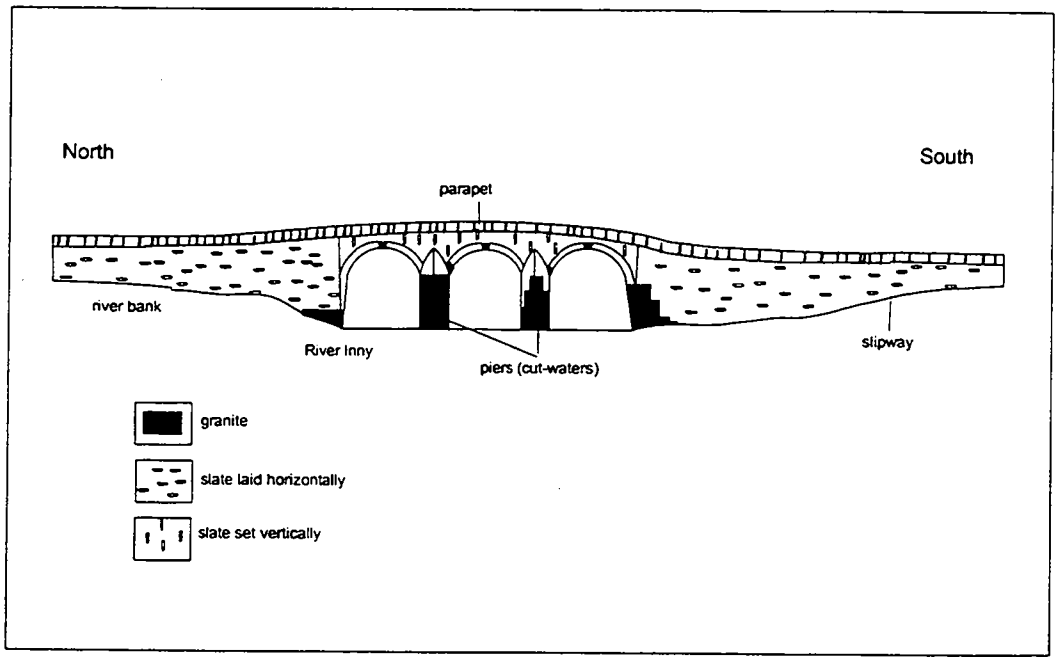
Email: jsturgess@cornwall.gov.uk

Appendix 2: Archaeological and Historical Assessment (Gossip 2000)

Please see overleaf

Trekenner Bridge

Archaeological and Historical Assessment



CORNWALL ARCHAEOLOGICAL UNIT

Trekenner Bridge

Archaeological and Historical Assessment

James Gossip BA

June 2000

CORNWALL ARCHAEOLOGICAL UNIT

A service of the Environment Section of the Planning Directorate, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, Cornwall, TR1 3AY tel (01872) 323603 fax (01872) 323811 E-mail cau@planning.cornwall.gov.uk

Acknowledgements

This study was commissioned by Transportation and Estates, Cornwall County Council

Within Cornwall Archaeological Unit, the Project Manager was Nigel Thomas.

Thanks to Matt Stribley (T & E) for his help and co-operation during the project.

Cover illustration:

TurboCAD drawing showing the upstream elevation of Trekenner Bridge (not to scale)

Contents

List of Figures (at back of report)

Abbreviations

CAU	Cornwall Archaeological Unit
CRO	Cornwall County Record Office
EH	English Heritage
NGR	National Grid Reference
RCM	Royal Cornwall Museum
PRN	Primary Record Number in Cornwall SMR
SMR	Cornwall and the Isles of Scilly Sites and Monuments Record
T & E	Transportations and Estates Department, Cornwall County Council

Summary

The Cornwall Archaeological Unit was commissioned by Matt Stribley, Structures Office, Transportation and Estates, Cornwall County Council to prepare an assessment of the archaeological and historical importance of Trekenner Bridge, Cornwall (located in the parish of Lezant at NGR SX 339 770; listed building no. 5/123) to assist with their application for Listed Building Consent for strengthening works. The purpose of the assessment was to assess the archaeological and historical importance of the bridge, the archaeological impact of the scheme, and to provide if necessary a mitigation strategy for further recording of the structure either before or during the proposed works.

The surviving bridge dates from the 16th century, although much of the structure was rebuilt in 1847 following a flood. The assessment concluded that the proposed strengthening works were to cause minimal disturbance to the historic bridge fabric or to the visual appearance of the bridge. Any rebuilding work on the bridge parapets should re-use the existing stone and be bonded with a sympathetic, preferably lime-based mortar. A brief photographic record should be made during the strengthening and re-building works. If any of the existing road surface is to be removed, such works should also be subject to a photographic record. This should preferably be undertaken by a professional archaeologist but could be carried out by officers from T & E. The photographic record should be deposited with Cornwall Archaeological Unit.

1. Introduction

The Cornwall Archaeological Unit was commissioned in February 2000 by Matt Stribley, Structures Office, Transportation and Estates, Cornwall County Council to prepare an assessment of the archaeological and historical importance of Trekenner Bridge, Cornwall (located in the parish of Lezant at NGR SX 339 770; listed building no. 5/123) to assist with their application for Listed Building Consent for strengthening works. The bridge is a Grade II listed building.

In drawing up a brief for an archaeological statement for Relubbus Bridge in 1998, Steve Hartgroves, Sites and Monuments Officer, was guided by PPG 15 which states that "Local planning authorities should expect developers to assess the likely impact of proposals on the special interest of the site or structure in question, and to provide such information... as may be required to understand the significance of a site or structure before an application is determined" (paragraph 2.11). In addition it states that "Applicants for Listed Building Consent must be able to justify their proposals. They will need to show why works which would affect the character of a Listed Building are desirable or necessary. They should provide the local planning authority with full information, to enable them to assess the likely impact of their proposals on the special architectural and historic interest of the building and its setting" (paragraph 3.4).

The brief accordingly requested:

1. An assessment of the archaeological and historical importance of the bridge (see section 2).
2. An assessment of the archaeological impact of the scheme (see section 3).
3. A mitigation strategy, if necessary, for further recording of the structure either before or during the proposed works (see section 4).

(Steve Hartgroves, 20th March 1998).

Matt Stribley informed CAU that the proposed strengthening works at Trekenner will involve drilling holes into the bridge superstructure for the insertion of strengthening bars. Some rebuilding of the parapet walls will also be necessary. Working methods for assessment of the structure included a desk-based study reviewing all available documentary and cartographic sources for the bridge itself, and also those which placed the bridge in its local historic landscape context. These sources included:

- T & E records.
- Historic maps including Norden (c1580), Gascoyne (1699), Martyn (1748), OS 2 inch drawing (*c*1805), TA maps of the parish (c1840), 1st edition OS 1:2500 (c1880), 2nd edition 1:2500 (c1907) and the modern OS map.
- Cornwall Sites and Monuments Record.
- Listed Building Description.
- Literature sources, including Henderson and Coates (1928) 'Old Cornish Bridges and Streams', and parish/local histories.
- Fieldwork included a sketch plan and elevations showing the principal features of the bridge, and a detailed description of the structure. The two alternative options for bridge strengthening were considered in the assessment of the impact of the proposed works.

- A full photographic record was made of the bridge, and the dimensioned plans and elevations drawn up using TurboCAD.

2. Archaeological and historical importance of Trekenner Bridge

2.1 Historical Background

Trekenner Bridge crosses the River Inny and carries a minor road southwards from the villages of Lezant and Trekenner towards the village of Bray Shop. The bridge, situated in a relatively isolated part of a partially wooded valley, lies on the parish boundary between Lezant and Stoke Climsland, the parish boundary itself being the south bank of the river.

The place-name of Trekenner, a village in Lezant parish to the north of Trekenner Bridge, is first recorded in *c*1200 (Gover 1948, 159) and contains the Cornish elements *tre* 'estate, farmstead' and an unknown second element. *Tre* indicates a site of early medieval (ie pre-Norman) origin (Padel 1985, 223).

The bridge itself is believed to be 16th century in date, when it was built as a 'County Bridge'. These were bridges which were considered important enough for their maintenance to be the affair of the County Court, with repairs being the responsibility of the Justices of the Quarter Sessions (Henderson and Coates 1928, 22 and 58). The early cartographer Joel Gascoyne (*c*1699) shows Trekenner Bridge on his survey of Cornwall where it is marked 'Trecanna bridg'. A bridge is also recorded on this site by Thomas Martyn (1748) but he does not give its name.

The Tithe Maps of 1840 for the parishes of Lezant and Stoke Climsland show the bridge with adjoining fields named either 'The Ham' or 'Bridge Ham' indicating that these were low-lying wet meadows (Peter Herring pers comm). Land use on these parcels of land is either 'Arable' (in the case of land to the south of the river) or 'Arable Occasionally' (land to the north of the river). An area of woodland also lies adjacent to the south of the river.

The bridge is clearly shown on the Old Series OS drawings, and is marked Trekenner Bridge on the 1st (1880) and 2nd edition (1907) OS maps.

The 16th century bridge was damaged by a flood in 1847 which destroyed the three arches, although the piers and cutwaters of the 16th century bridge are believed to survive today (Henderson and Coates 1928, 58). Henderson and Coates state that the arches were each 2 feet in span, but this would have made them extremely small (Henderson and Coates 1928, 58). The road and the bridge fell into disuse in 1836 with the construction of a new bridge at Woodabridge to take the Launceston to Callington Road (Henderson and Coates 1928, 58), and infrequently used by traffic the area now has a sense of remoteness and isolation. Although the known bridge dates from the 16th century, it is likely that a river crossing existed here at least as early as the medieval period, perhaps taking the form of a ford or an earlier bridge, for traffic using what is almost certainly a medieval route.

Trekenner Corn Mill (known to have been operating in 1897, and present on the 1880 1st edition OS map) is situated just to the north of the bridge, and is fed by leats running off the River Inny to the west. Another leat runs from the mill to enter the river along the upstream side of the northern abutment, and is marked with a sluice halfway along its length on the 1st edition OS map. It is likely that the presence of a bridge influenced the siting of the mill, or that the establishment of a mill influenced the communications around it.

2.2 Description

Trekenner Bridge has three openings separated by two piers. The openings are of similar dimensions, being roughly 3m wide and standing 2.2m above the water-line. In elevation the bridge is of similar construction when viewed from either side as the piers taper to pointed ends, with those on the upstream side serving as cutwaters. The bridge is built from a mixture of quarried granite blocks and roughly hewn slate stones. Most of the lower part of the superstructure of the bridge, the piers and the bases of the abutments are constructed from large dressed granite blocks. At least three granite blocks survive to act as springers for the two southernmost arches. At the top of each arch is a dressed keystone in granite, and a few granite coping stones survive at the southern end of the bridge on its downstream side. The remainder of the superstructure, the arches and the parapets are constructed from slate stones set on end and bonded with a hard greyish-white mortar, with some obvious areas of modern repointing. The copings mainly comprise slate stones set on end in a similar mortar, irregularly interspersed with larger slate blocks. The granite copings are large (typically 1m long) and are bonded to each other with iron brackets. The northernmost granite has a drilled hole in its end suggesting that the copings continued in this fashion. Two granite blocks at the southern end of the downstream parapet have drill marks, typical of a mid-19th century structure. However, it is likely that the granite blocks in the piers and abutments represent the earlier (16th century) bridge. Following its partial destruction by flood in 1847 it was rebuilt using slate.

The bridge is narrow (2.7m) and hump-backed, and unfortunately not adequate for modern traffic. However infrequent this is, damage to plastic bollards at the southern end of the bridge suggests that traffic that is too wide occasionally attempts to cross the bridge. The bridge shape in plan is rather irregular, perhaps as a result of a haphazard or hasty rebuild. Curves in the parapet wall in the centre and at the southern end of the bridge may have been incorporated as passing places for horse-drawn traffic.

The modern road surface between the parapets comprises tarmacadam, and no indication is given of an earlier road surface, although this is likely to have been cobbled to some extent. Water flow beneath the bridge is good, with little build-up of pebbles or water-borne debris beneath the arches.

3. Assessment of the archaeological impact of the proposed works

The proposed works at Trekenner Bridge comprise strengthening the existing bridge with minimal disturbance to the bridge fabric. This is to be achieved by drilling holes into the bridge superstructure to allow the insertion of steel bars (Matt Stribley pers comm), and therefore should have minimal visual or destructive impact on the historic fabric of the bridge. The present parapets are unstable in places and need to be rebuilt as part of the strengthening works (Matt Stribley pers comm) and this should be carried out by re-using the existing stone and bonded with a sympathetic, preferably lime-based mortar. In the event of the removal of the modern road surface, earlier surfaces may be revealed which will require archaeological recording.

4. Recommended archaeological recording

A descriptive record together with dimensioned sketches of the elevations and plan, supported by photography, was made for this assessment. These records should suffice as a record of the bridge before strengthening.

A brief photographic record should be made during the progress of the works. Additional photographic record should be carried out if the tarmac roadway is removed as an opportunity to record any earlier road surfaces that may be revealed. This recording could be carried out by professional archaeologists, but it may be reasonable for officers of The Design Consultancy to carry it out when visiting the site during bridge strengthening. Areas to be photographed should be briefly cleaned in advance of photography. The photographs should include a recognisable scale and be accompanied by a brief descriptive record. Copies of the photographs and accompanying records should be lodged with the Cornwall and Isles of Scilly Sites and Monuments Record.

5. References

Gover, J.E.B., 1948, *Place-Names of Cornwall* (manuscript at RCM)

Henderson, C.G. and Coates, H., 1928, *Old Cornish Bridges and Streams* Bradford Barton reprint 1972, Truro

Ordnance Survey, 1997, *LandLine Digital Mapping at 1:2500*

Ordnance Survey, *c*1805, *Surveyors Drawing 2" inch scale* (microfiche copy at CAU)

Ordnance Survey, *c*1880, *25 Inch Map 1st Edition* (microfiche copy at CAU)

Ordnance Survey, *c*1907, *25 Inch Map 2nd Edition* (microfiche copy at CAU)

Padel, O.J., 1985, *Cornish Place-Name Elements*, Nottingham

Ravenhill, W.L.D. and Padel, O.J., 1991, Joel Gascoyne's Map of the County of Cornwall *Facsimile reproduced by Devon and Cornwall Record Society. Vol. 34*

Thomas Martyn (1748) *A new and accurate map of Cornwall*

Tithe Map and Apportionment, *c*1840, *Parish of Lezant* (microfiche copy at CAU)

Tithe Map and Apportionment, *c*1840, *Parish of Stoke Climsland* (microfiche copy at CAU)

6. CAU archive

The CAU project number is 2000042

The project's documentary, photographic and drawn archive is housed at the offices of Cornwall Archaeological Unit, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. An administrative file containing the project correspondence.
2. An information file containing copies of documentary/cartographic source material.
3. Finished plans and elevations stored electronically as

H:\DRAWINGS\ARCHIVE\TREKENNER BRIDGE\TREKENNER BRIDGE.TCW

4. Black and white photographs archived under the following index numbers : GBP 1171/1-10
5. This report held in digital form as: G:\DOCUMENT\SITES\SITES T\ TREKENNER BRIDGE\TREKENNER BRIDGE ASSESSMENT.DOC

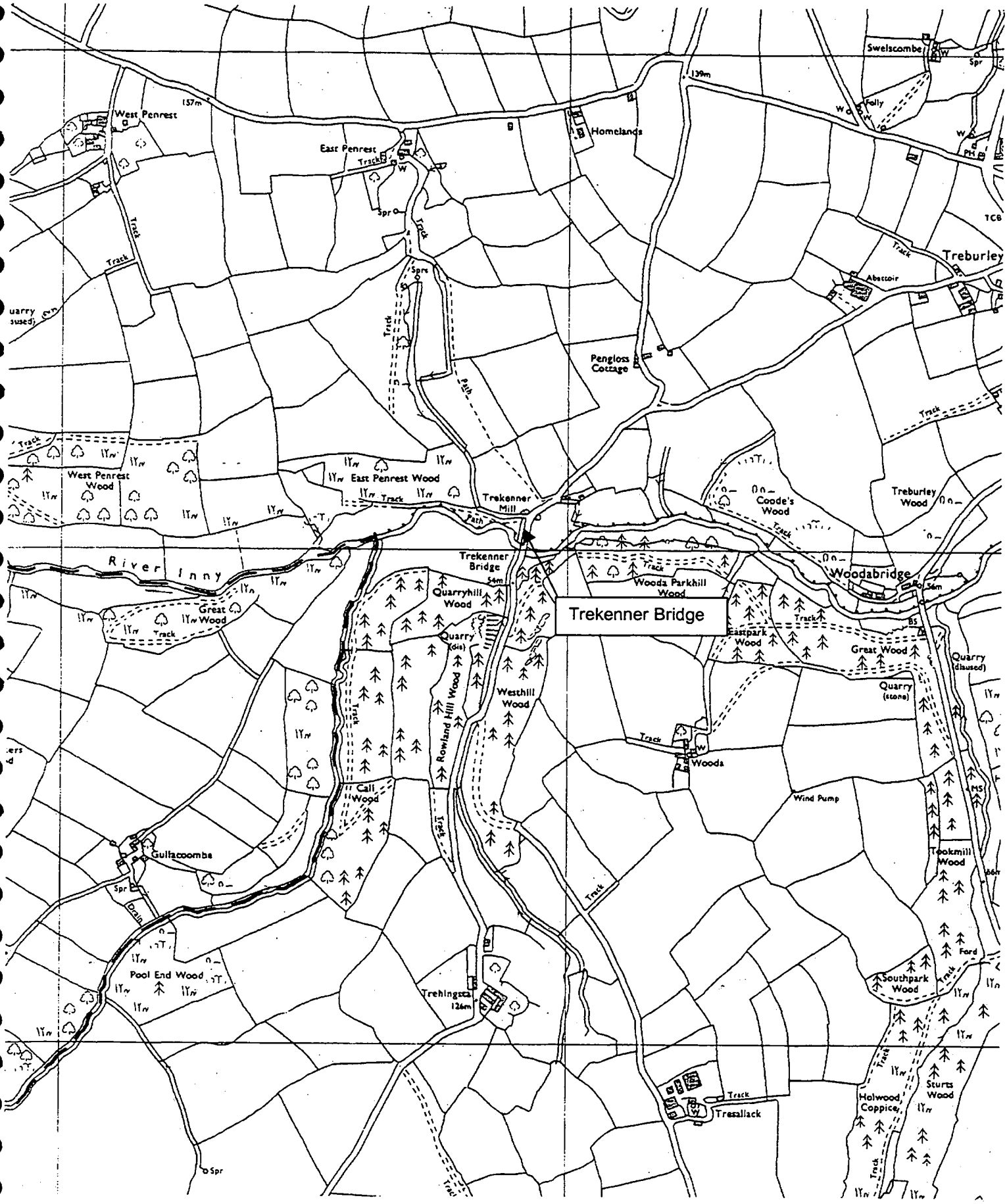


Figure 1: Modern OS map showing location of Trekenner Bridge (Scale 1:10000)

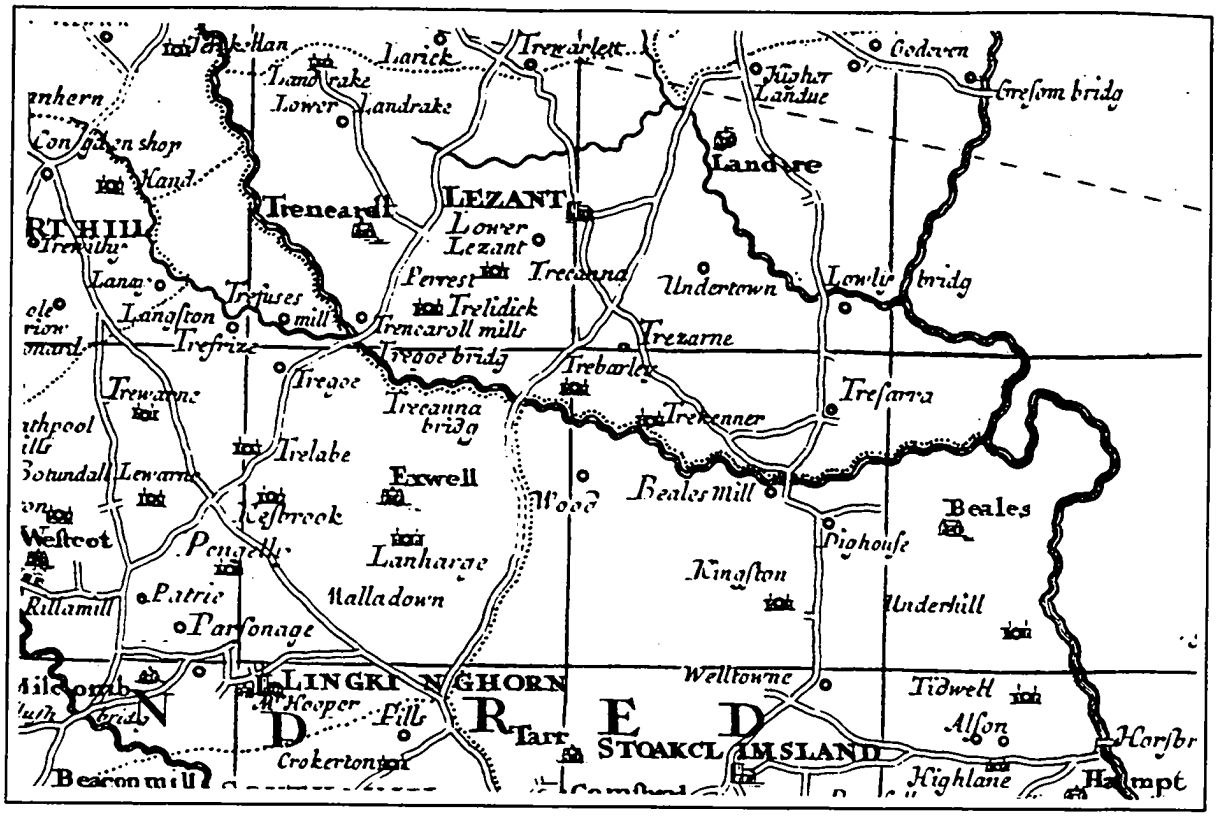


Figure 2: Extract from Joel Gascoyne's map of Cornwall 1699

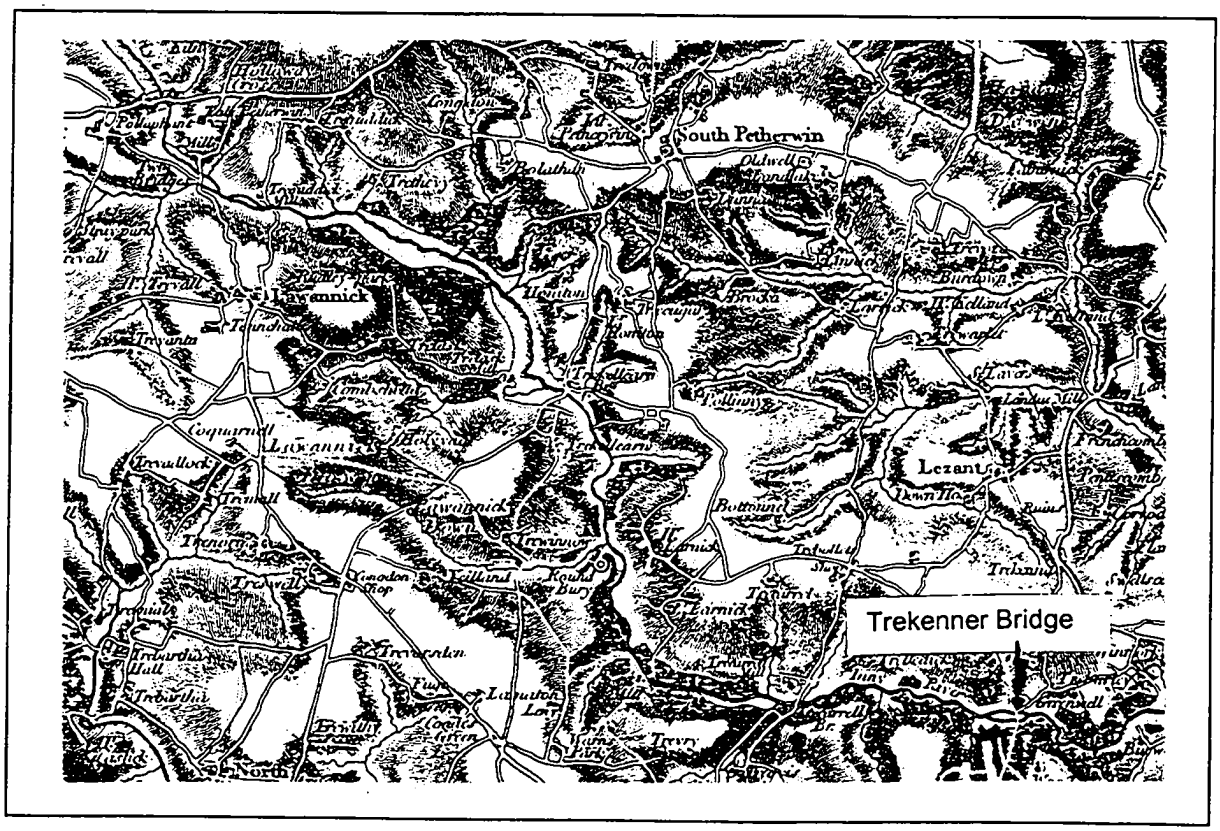


Figure 3: Extract from Old Series OS map, *c*1805

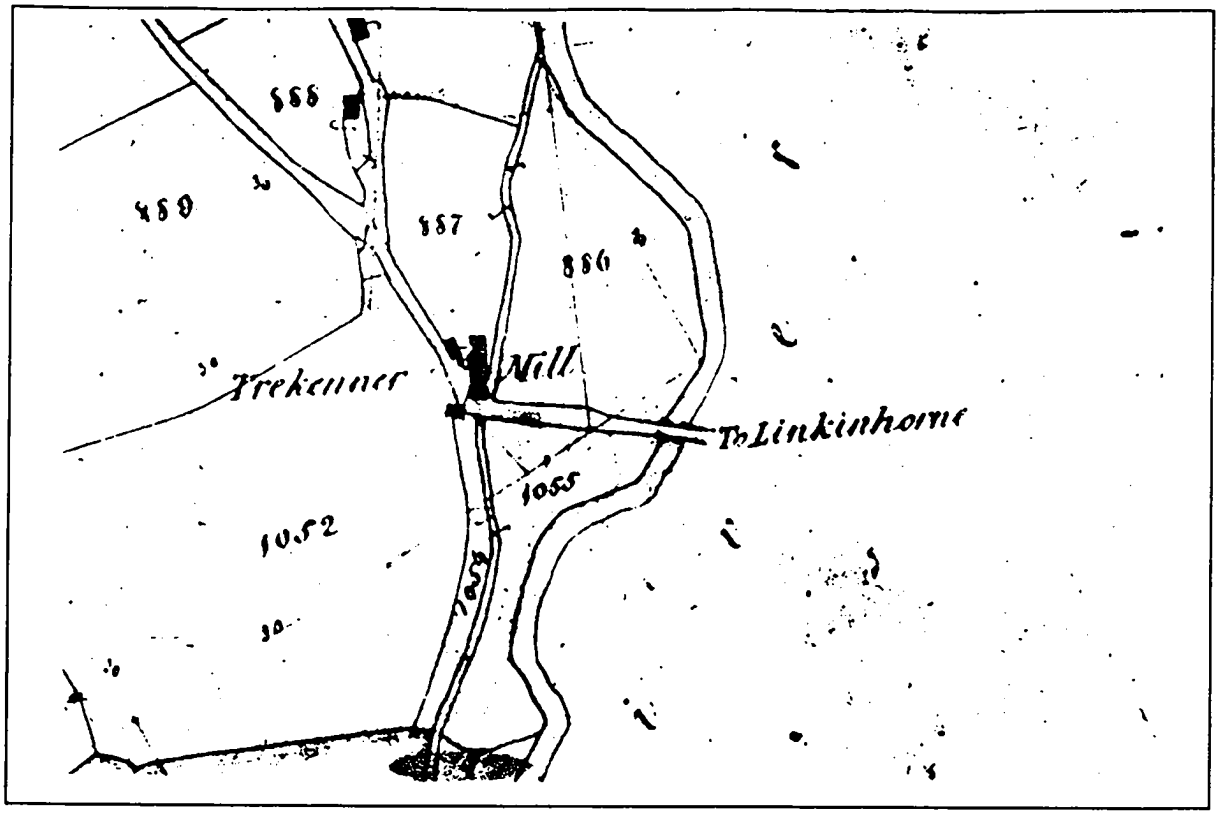


Figure 4: Extract from Lezant Tithe Map, 1840

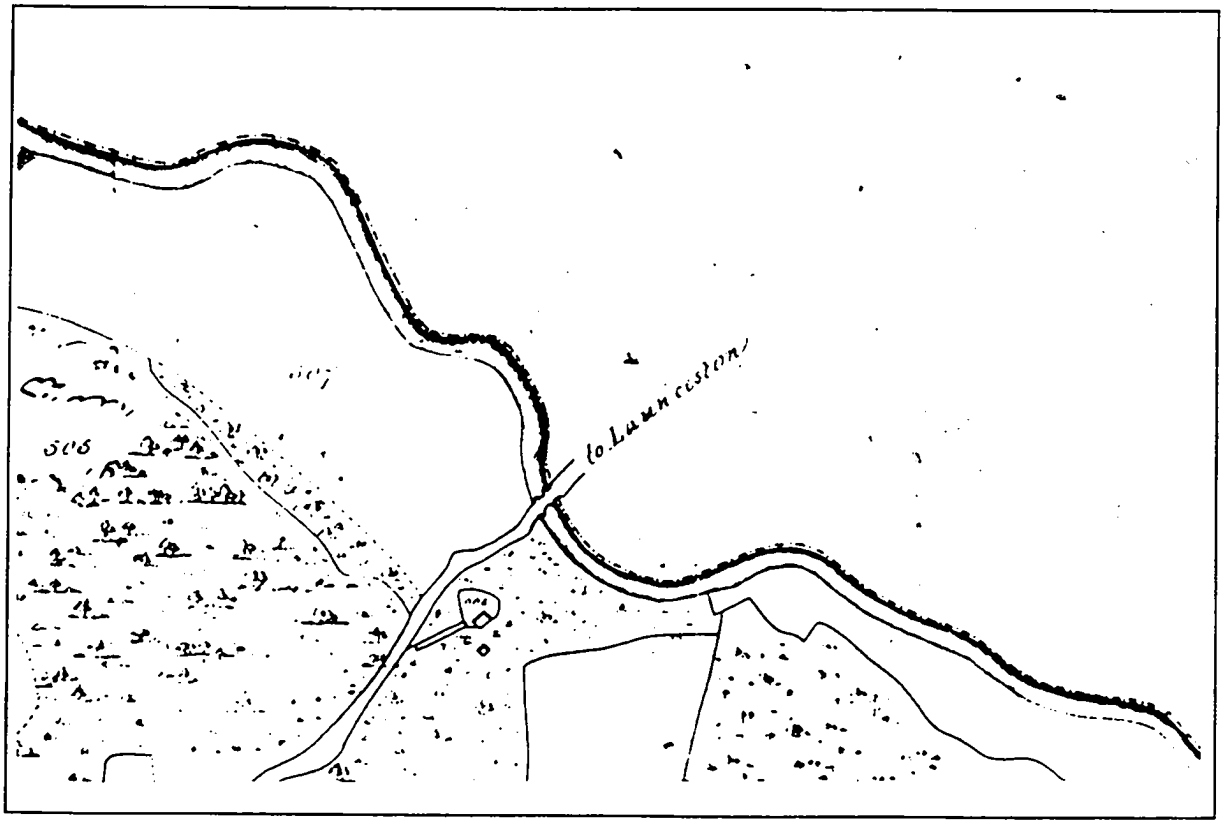


Figure 5: Extract from Stoke Climsland Tithe Map, 1840

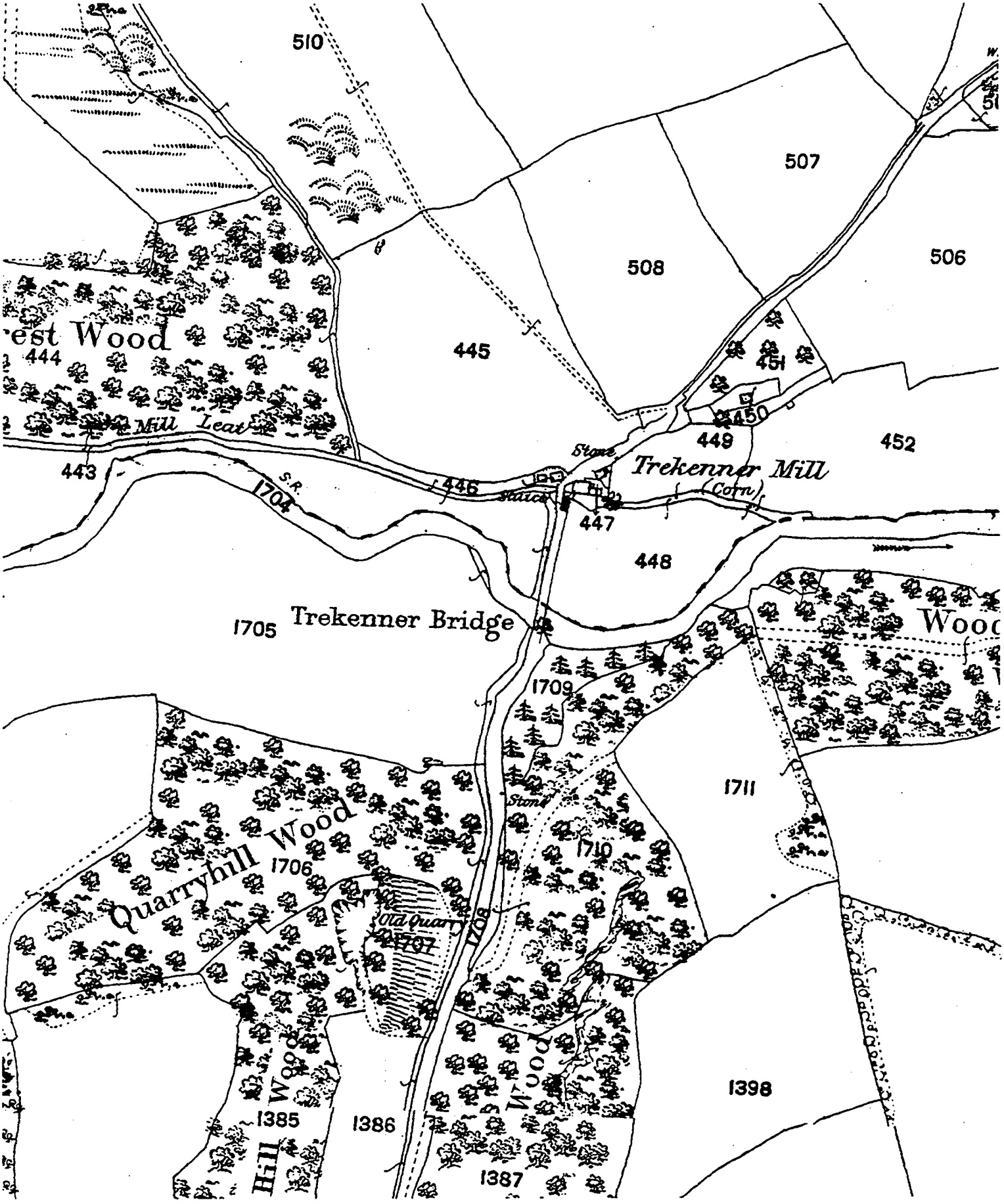


Figure 6: Extract from 1st edition OS map 1880 (scale 1:2500)

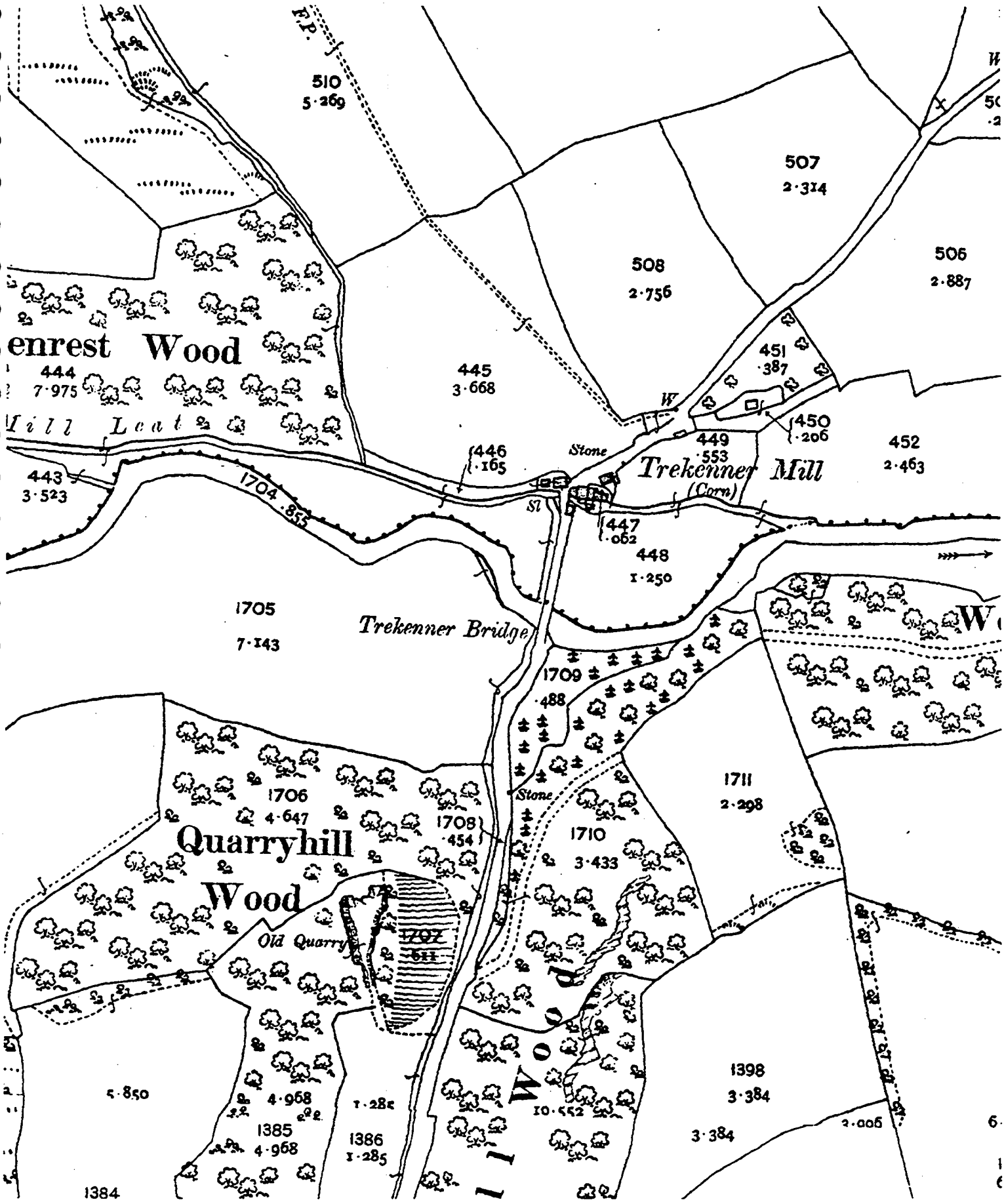


Figure 7: Extract from 2nd edition OS map 1907 (scale 1:2500)

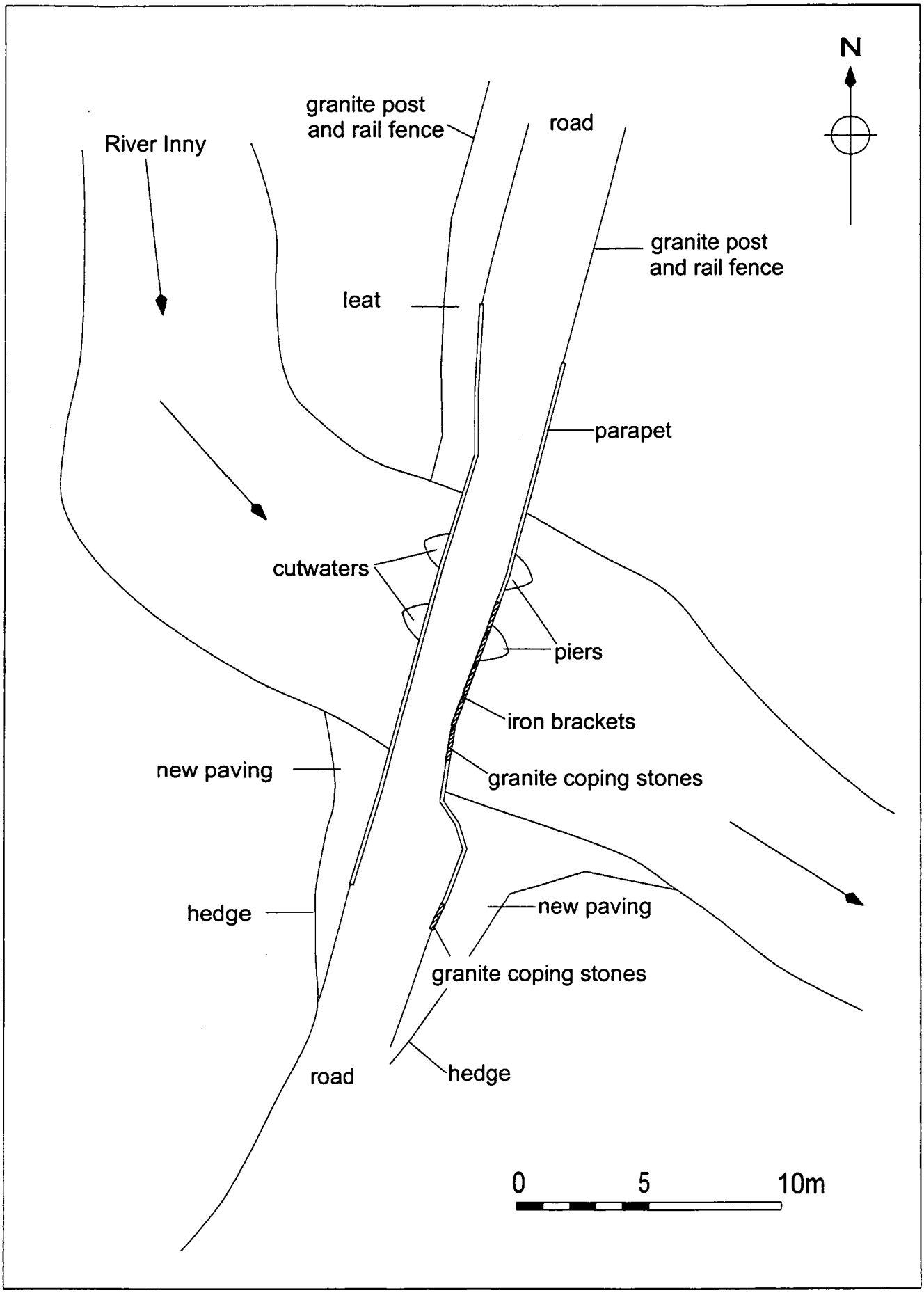


Figure 8: Plan of Trekenner Bridge

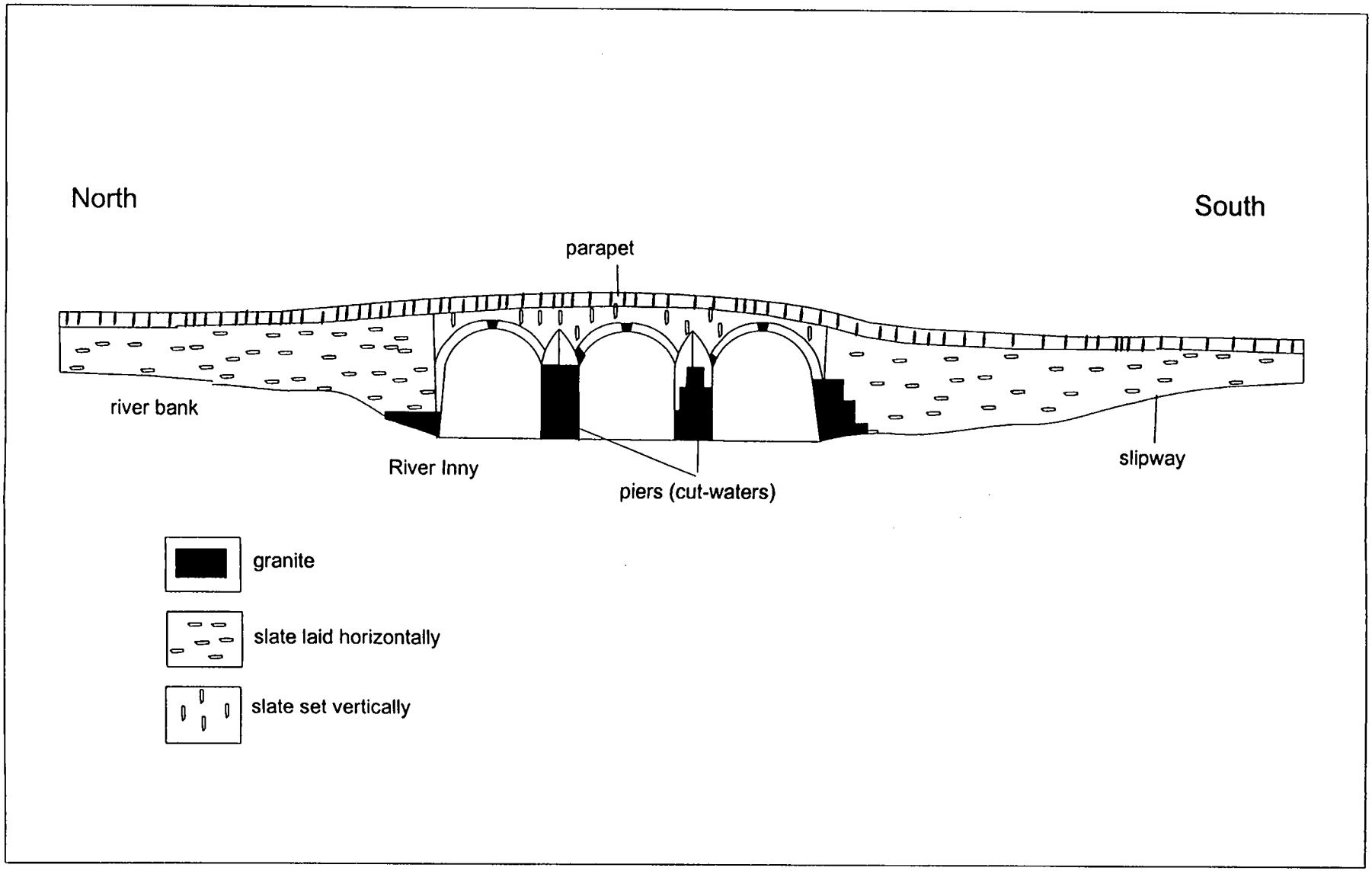


Figure 9: Upstream elevation of Trekenner Bridge, based on sketch (not to scale)

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