

RECORD OF TIDAL OUTFALL AT HILL PILL

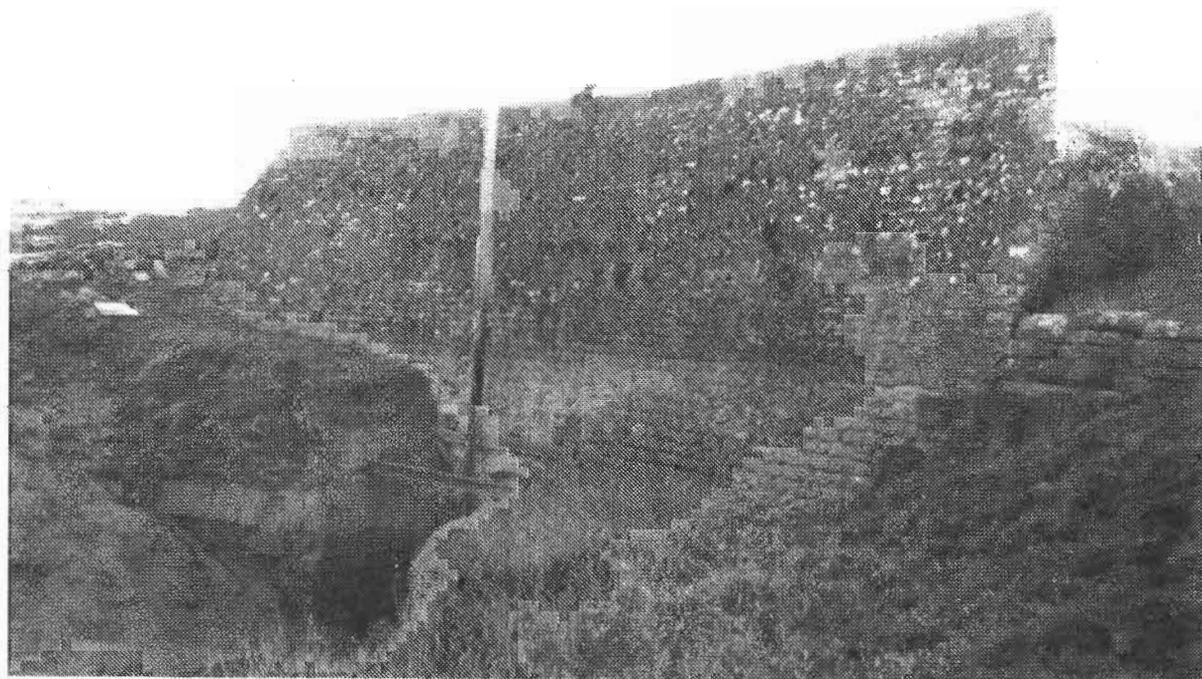
Ray Wilson

Introduction

Hill Pill lies between Berkeley and Oldbury power stations and is one of the main drainage channels for the low-lying lands on the Eastern bank of the River Severn. The outfall at the mouth of the pill is fitted with a tidal flap. This permits the water to run out from the pill to the river at low tide but prevents the water from entering the pill when the tide rises.

Land drainage measures in the area go back to at least as early as 1312, the date of the first recorded Commission of Sewers in Severn Vale. Since 1937 laid drainage there has been the responsibility of the South Gloucestershire Internal Drainage Board. A short history of the Board and also land drainage in the area was published in 1987 (1).

In 1989 the National rivers Authority (NRA) decided to replace the old stone built outfall on Hill Pill with a modern concrete structure. The NRA, through one of its conservation officers invited GSIA to record the site.



Hill Pill Outfall

Visits were made to the site in November 1989 and January 1990 by Ray Wilson and Jim Simmons of the Gloucestershire Society for Industrial Archaeology. Subsequent documentary research has dated the structure as c. 1749. Another structure which is believed to be an earlier outfall for Hill Pill was also noted. Basic measurements of the two structures were taken together with a number of photographs. Figure 2 shows a plan of the later structure and figure 3 is a cross-section through it.

Happily, in the event, the 1749 outfall was not destroyed by the scheme as the position of the new outfall was altered to a few metres south of the stone one. The new channel passes close to the stone structure which has been conserved and remains as a monument to the masons of the mid eighteenth century.

Brief History

The positions of the two existing structures are shown on Figure 1. The earlier structure (NGR ST 6282 9712 and marked A) appears on a Hill Estate map of 1659 (2). The minutes of a meeting of the Court of Sewers held at the home of Margaret Fowler in Hill on 22 September 1749 gives full details of a decision to build a new outfall nearer the river (3). The Commissioners had visited the site earlier in the day and it was concluded that re-location of the outfall was necessary to improve the poor drainage after very heavy rain. An extract from the minutes is included as an appendix. The replacement outfall was built some 165m nearer the river at NGR ST 6271 9723 shown by B on Figure 1.

Description

(All dimensions are approximate.)

The outfall is constructed of roughly dressed stone in regular courses. The material is sandstone (possibly from the Forest of Dean).

The length of the structure is 16m on the riverside but only 7m on the inland side. The overall thickness is 7m at the top increasing to 9m at the base. Water is allowed to pass through the structure at low tide via a culvert controlled by a cast iron 'one-way' tidal flap. The channel immediately on either side of the outfall is masonry lined. The channel to the river is in the form of a broad curve. (see Figure 1)

A track passes over the outfall, the width of the roadway being 6.4m. The parapet on each side are 1.2m high. They are 1m thick at the base tapering to just 0.38m at the top. They are capped by massive coping stones. These are approximately semi-circular

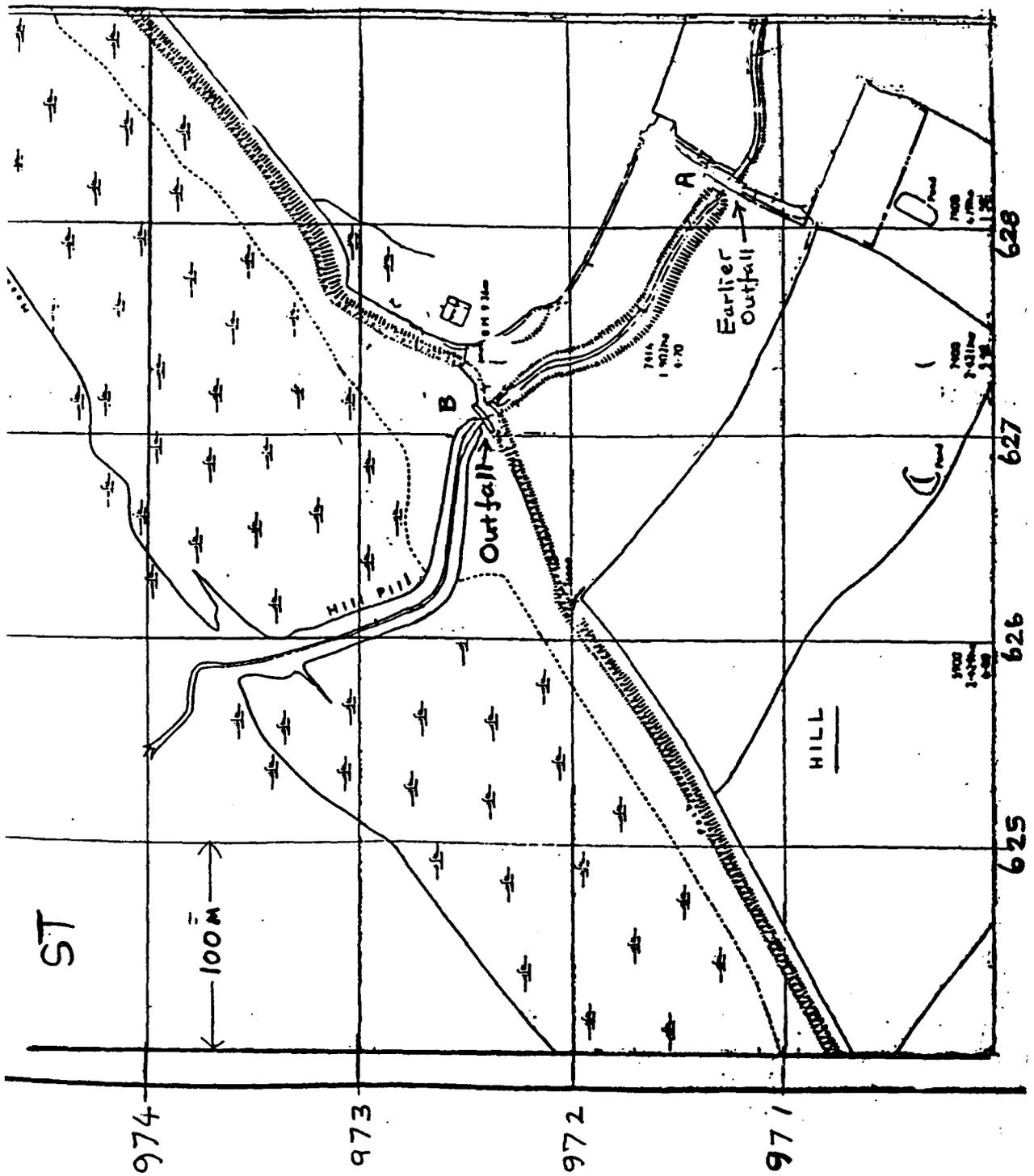
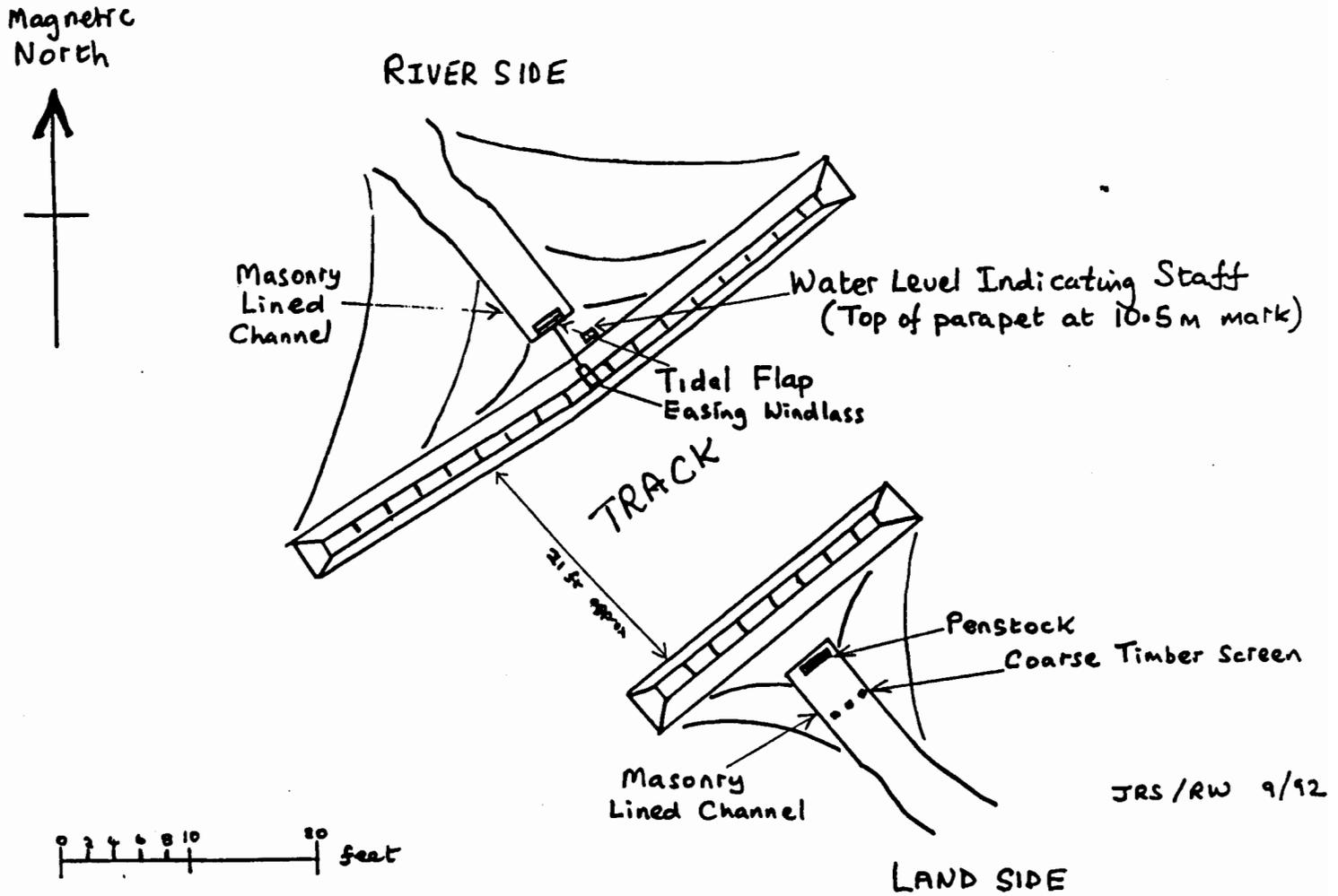


FIG 1. LOCATION OF HILL PILL OUTFALL (ST62719723)

(Earlier Outfall at ST 62829712)

FIG 2. HILL PILL OUTFALL (PLAN)



in cross-section and are typically 0.38m wide by 0.30m high and 0.76m long.

A coarse timber screen is fitted in front of the culvert on the inland side to protect against blockage from large debris in the pill. A water level indicator is fitted on the riverside.

References

- (1) History of the South Gloucestershire Internal Drainage Board published by the Board.
- (2) GRO Hill Estate Map (1659) Gloucestershire Board Office.
- (3) GRO D272 3/3.

Appendix

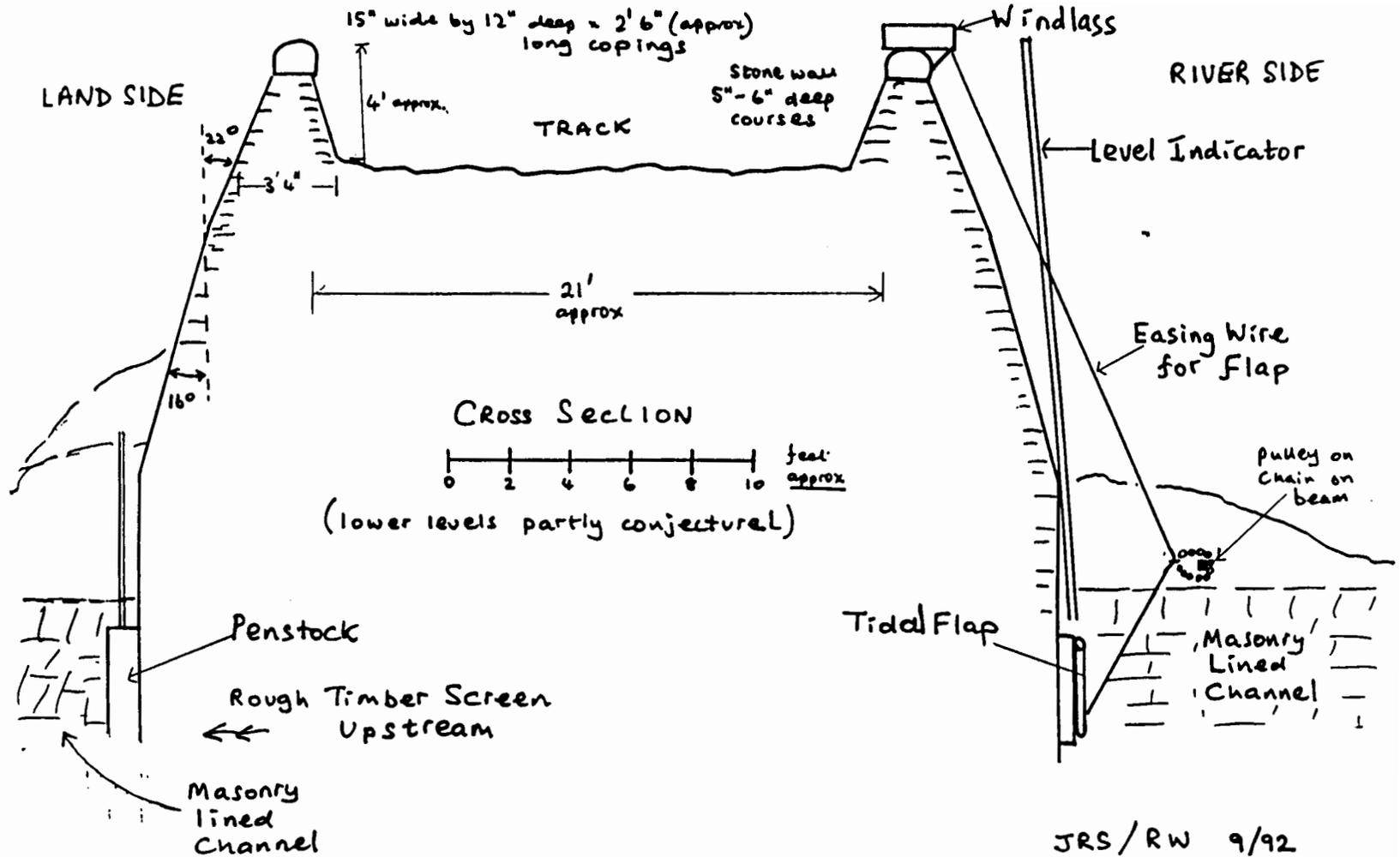
Gloucestershire Record Office D272 3/3

Extract from the Minute Book of the Court of Sewers

A court or Sessions of Sewers held at the dwelling house of Margaret Fowler known by the sign of the White Horse in Hill otherwise Hull in the said county in and for the lower level of the same county on Friday the 22 day of September 1749. Before Sir Francis Fust Bart. and John Hooper Morse Esq. Robert Laybe. John Heathfield Thomas Hicks and John Champneys Gentlemen his Majesties Commissioners for Sewers for the said lower level of the said county (and whereof three and more are of the quorum). Whereas it appears to us his majesties Commers. of Sewers by view and survey by us this day made that Hill Pill otherwise known as Hull's Pill otherwise New Warff's Pill below the Drough in the parish of Hill otherwise Hull within the upper part of this level in a very defective and inadequate and by the flatness thereof to carry of the water and drain the grounds and lands above the same Drough when the land floods and are very violent.

And whereas it appears unto us that it is impossible to make the said Pill sufficient to drain the said waters without new making a Drough at some distance below the present drough which we taking into our consideration do adjudge absolute necessary for the Publick good that a new Drough said be made erected and set up in the said Pill below the Drough. And we will therefore by Notice of the Laws and statutes in that case made and to the power and authority to us thereby given do hereby order direct and Appoint that a new Drough shall be erected and set up about seven and twenty perch (at the rate of 21 feet to the perch) below the said old Drough which said new Drough will be made ass near the same dimensions as the old now is or as the place

FIG. 3. HILL PILL OUTFALL (SECTION)



will admit of and we do also adjudge if absolute that a new wall or bank shall be made from the corner of the wall or bank adjoining to the brick kiln belonging to Sir Francis Fust Bart. to the said new drough and hence to the corner of the sea wall on the other side of the said Pill being in length about 20 perch according to the rate aforesaid and to be of the same height and dimensions as the adjoining walls and we do hereby request and devise that the said Sir Francis Fust Bart. taking to his assistance if needed John King one of the surveyors for the upper part of this level and any other persons will cause the new drough to be made erected and performed with substantial materials in every part thereof and that Mr John Heathfield also taking to his assistance the said John King and any other person or persons will cause the said walls and banks to be made and performed to this our order and whatever expense they or either of them shall be at or doing thereof shall be paid by such landowners of the said parish of Hill otherwise Hull who shall receive any benefit or advantage from the new making of the said Drough walls or banks.