CHAPTER 7
CONSTRUCTING THE PARRETT NAVIGATION COMPANY'S WORKS, 1836-1841

The Company of Proprietors held their first meeting on 28 July 1836, when Nicholas Broadmead was elected Clerk to the PNC and a Management Committee was constituted with instructions to 'ascertain the best Line for the Canal from the confluence of the Isle and Parrett to Park Gate' in time for the first Annual General Meeting on 29 August.¹ On 3 August the Committee asked Gravatt to inspect both lines of the canal as drawn on the deposited plan; Gravatt later stated this was the first time he had been involved with this navigation.² The following day they accepted his recommendation to adopt the line via the Isle around the north and west sides of Midelney Farm, and instructed him to prepare a plan of the 'canal' for use in negotiations with Thomas Best.³ From that time, the 'canal' seems to have been generally understood to mean the whole length of the 'canalised' river Isle and the West Moor canal. A week later, on 11 August, the Committee resolved to employ Gravatt as 'Engineer to the Company.' They also appointed Henry Draper, a Langport auctioneer, as 'Superintendent of the Works' on two guineas per week, plus an allowance of half a guinea for a horse.⁴

Gravatt's terms of employment were not specified, the Committee simply directed Broadmead to give him the 'necessary instructions.' In actual fact Gravatt's role was that of a consulting engineer whom the PNC called in as necessary, as opposed to that of the 'Engineer to the Company' in the generally accepted sense. He later said that he 'came down when there was anything difficult to do.' He stressed that he had seen none of the estimates made by Jones and Brunel, nor any of their designs and plans except the deposited plan; and that he was not asked to make, so did not make, either a complete plan of the whole works or an estimate of the whole works. Instead, he designed and estimated all the individual works in compliance with the requirements

¹ SRO D/RA 3/1/1, Minutes of General Meeting, 28 Jul 1836.
² TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, p.35.
³ SRO D/RA 3/1/2, PNC Committee Minutes, 4 Aug 1836.
⁴ Ibid, 11 Aug 1836. Draper was expected to devote the whole of his time to the service of the PNC:

… except so much as may necessarily be occupied in his business of an Auctioneer when he may absent himself on obtaining the consent of one of the Committee and finding a substitute if required, to be paid by him.
already laid down in the plan and Act, but he did this in a piecemeal way, as-and-when directed by the PNC. He said they applied to him:

… when they wanted a drain or bridge or flood gates made … I submitted designs of the works as fast as they were wanted, sometimes one, two, three, four & as they wanted them, up to thirteen or fourteen – I was always pressed to furnish designs.¹

Broadmead quickly opened negotiations with the land owners along the Parrett, the Isle and the line of the canal across West Moor.² By 22 August he had agreed terms with William Cely Trevilian who had extensive estates along the left banks of the Parrett and Isle at West Moor, Midelney and Westover, and whose cooperation was therefore crucial. The original scheme stipulated that the PNC would culvert the West Moor main drain under the Isle and connect it to a new collateral drain running close alongside the west bank of the Parrett through Westover Farm; under the terms of the new agreement the collateral drain would now be realigned westward so that it acted in effect as a catchwater drain to protect Trevilian's land, from the Parrett/Isle confluence down to Barge Bridge. The PNC would also straighten the Isle across Trevilian's land near Midelney Bridge, and rebuild the bridge to the south of its original site.³ The arrangements seem to have been well-received by the tenants of Midelney Farm, but there were concerns that the collateral drain-cum-catchwater would injure Westover Farm, as later explained to Trevilian by the tenant there:

Now I understand the plan to be this – The old river is to be the canal, the line of navigation. Up the river Parrett by Westover Farm, into the river Isle, and up nearly to Middleney Bridge where there is to be a new Cut across the end of the field called Washams through the road and up through the middle of the Piece of meadow on the right hand over Middleney Bridge called Broadmead, and consequently Middleney Farm can't sustain much damage. But Westover is very differently situated, there is to be a catch water drain made from the Cross rivers ⁴ between the Plow lands and the meadow in width I believe nearly 40 feet quite across

¹ TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.36-52 passim, 94-95.
² For example, at a site meeting on 26 July Broadmead agreed with Walter Long's representative that the level of the sill of Langport Bridge would be taken as the datum level for all the river works: SRO D/RA 3/3/11/21, Declaration signed by Nicholas Broadmead and John Combes, 26 Jul 1836.
⁴ Probably referring to the confluence of the Parrett and the Isle.
the Farm, and my Father and brother think it will be a very serious injury to the estate.¹

Freeman used the word 'canal' in the same sense as was used in the instruction to the Management Committee on 28 July.

The PNC's first Annual General Meeting on 29 August 1836 resolved to employ an engineer to survey the Yeo with a view to reviving the earlier Ilchester Navigation proposals, if in their opinion there were financial benefits.² It is not clear at what stage Gravatt was consulted about the proposals but, in the event, James Warren and Gravatt were jointly named as 'Surveyors' on a plan and a longitudinal section-cum-profile that were deposited in November 1836.³ The plan is in Warren's hand, and was clearly based on an annotated and amended preliminary draft plan which carries his signature.⁴ The section on the deposited plan was drawn by a different hand and appears to have been based on an undated and anonymous longitudinal section of the Yeo that had probably been surveyed by the J. Pinkerton who had been taken on in about August 1836 as an assistant surveyor on the B&ER and had now apparently been seconded to the PNC.⁵ Only one lock was shown on the deposited plan and section, about a mile upstream of Load Bridge; it was also shown on the draft plan, which suggests that Warren was responsible for locating it there, it clearly being assumed that the intended Langport lock and weir would maintain river levels in the Yeo sufficiently high for craft to reach that point. Calculating that the PNC could save themselves many hundreds of pounds if they carried out the improvements on the Parrett and Yeo in one undertaking, Broadmead set out a series of palliative proposals to mollify landowners: the PNC would rebuild Langport Bridge 'with the aid of £1,000 which they can get from other parties,' enlarge

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¹ John Freeman junior to William Cely Trevilian, 18 Nov 1836: SRO DD/CTV 60. Freeman was mistaken about the intended width of the West Moor drain, which was to be 8ft. at the bottom.

² SRO D/RA 3/1/2, PNC Committee Minutes, 19 Aug 1836; SRO D/RA 3/1/1, Minutes of General Meeting, 29 Aug 1836.

³ SRO Q/RUp 132, 'Plan and section of Parrett and Yeo Navigation between Ilchester and Langport; Surveyors: J.H. Warren and Wm. Gravatt,' deposited 30 Nov 1836.


⁵ SRO D/RA 3/3/21, 'Section of the River Yeo', undated [c.1836]. The same principal features were shown and named on both the sections, and significantly the idiosyncratic spelling of 'clys' for 'clyse' is identical. In October 1836 the PNC Committee made two payments totalling £30 to 'Mr. Pinkerton - Engineer - Towards Salary,' together with a payment to Ambrose Hoare and his sons for assisting Pinkerton 'in taking levels, measuring, &c.:' SRO D/RA 3/2/1, PNC Committee Accounts, 19,20 Oct 1836.
the waterway at Load Bridge and make the lock 'self acting.' In the event, nothing came of the scheme.

The Committee was keen to quickly open the works all the way to West Moor as the rival Chard Canal was also under construction. Advertisements appeared in mid-October for forming the West Moor canal and its associated bridges, and for building 'a pair of self-acting Flood Gates' at Stanmoor, and 'two pairs of self-acting Flood Gates' on the Isle 'to operate as a lock on that River.' An undated draft tender form and specification for erecting 'Floodgates across the River Parrett near Boro' Bridge' survives, signed by Gravatt. This is almost certainly the specification referred to in the advertisement; unfortunately an accompanying drawing has not been found, and without this the intended structural form of the floodgates cannot be sensibly interpreted. Nothing similar has been found relating to the works at Midelney. Gravatt later made it clear that it was the Committee themselves who decided the order in which these and all the other works were to be advertised and carried out:

I cannot afford to give a number of days consecutively but must give them when I can – therefore the works that were most pressing they wrote to me requesting me to come and see about them – for instance the Stanmoor Gates – that was some time previous to the other works – I made various designs for the Gates at Stanmoor and having taken that which was best on the whole then I of course estimated that very carefully and was prepared when it was put into the paper to see the tenders.

It seems unlikely that he had actually prepared anything meaningful for the Midelney site at that time; indeed it seems impossible that 'two pairs of self-acting Flood Gates' could actually 'operate as a lock.'

Henry Draper, who was by now styled 'Clerk of the Works,' let the West Moor works by auction at the Bell Inn, Curry Rivel, on 31 October. Gravatt had prepared a specification for the earthworks, which comprised the canal across West Moor, a

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1 SRO D/RA 3/3/21, Statement as to navigating the Yeo, undated [c.1836].
2 SRO D/RA 3/1/2, PNC Committee Minutes, 5 Sep 1836; SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Thomas Watson Bagehot, 15 Mar 1839, p.16.
3 Notices inviting tenders, dated 14 October 1836: Western Flying Post 17 Oct 1836; Taunton Courier 19 Oct 1836.
5 TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.40-41.
6 SRO D/RA 3/3/10/8, printed handbill, 'Parrett Navigation: Lots of Work to be let', undated but signed by the successful tenderers 31 Oct 1836.
diversion cut for the Isle across Midelney Broadmead, and lengths of catchwater and collateral drains at Westover Farm and Long Sutton.\(^1\) There were bridges over the canal and drains, and another over the new cut in the Isle. The bridge plans have not been found but a manuscript specification, based on an undated preliminary draft signed by Gravatt, survives, in which the bridges were stated to be elliptical arches of 21ft. span and 5ft. 3in rise.\(^2\) The successful tenderers for the bridge works were Job Bradford, James Champion and a consortium comprising William Mead of Thorney and two erstwhile contractors for the enclosure bridges, namely John Stone and Robert Mear.\(^3\)

Payments totalling £52 15s. 7\(\text{d}\) were made to Henry Draper during October 1836, 'towards his Salary as foreman of the works & payments by him.'\(^4\) The last payment was described as 'the residue,' suggesting it was a final salary payment, although there was one further small payment which probably related to his role in letting the works.\(^5\) His name does not appear in the PNC accounts thereafter. John Harris' name occurs in the accounts from mid-November 1836 through to the end of 1837, generally in connection with payments for 'Salary and money paid by him to workmen,' which suggests that he was supervising the contractors who were cutting the drains.\(^6\) Indeed, when Broadmead was asked in 1839 whether the PNC had consulted an engineer to give them detailed advice on forming the drains, he replied, 'Not a regular Engineer … We had a man of the name of Harris a great deal concerned in such works.'\(^7\) The first payment to an earthworks contractor was for £12, paid on 3 December

\(^1\) SRO D/RA 3/3/10/41, 'Parrett Navigation ... Specification of the Cuttings and other Earth work for the new Canal ...[signed] Wm. Gravatt' undated [c.1836].
\(^3\) SRO D/RA 3/3/10/6, 'Specification of Road Bridges', signed by Robert Mear, John Stone and William Mead, undated [c.1836]; SRO D/RA 3/3/10/7, 'Prices at which the Bridges were let & agreements for the same', including agreements signed by Robert Mear, John Stone, William Mead, Job Bradford and James Champion, 31 Oct 1836.
\(^4\) SRO D/RA 3/2/1, PNC Committee Accounts, 10,19 Oct 1836.
\(^5\) Ibid, 5 Nov 1836. The previous day John Fussell Palmer of the Bell Inn, Curry Rivel, was paid £8 1s. 3\(\text{d}\) for his charges in connection with the letting of contracts: ibid, 4 Nov 1836.
\(^6\) Ibid, 14 Nov – 23 Dec 1837 passim.
\(^7\) TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Nicholas Broadmead, 14 Mar 1839, pp.91-92.

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to Thomas Quick; thereafter the majority of payments were relatively small sums to similar contractors.¹

Thomas Hutchings, the Bridgwater builder who had earlier installed Lovibond's 'railway' under Langport Bridge, submitted a tender on 21 November 1836 in the sum of £1,950 for the 'erection of flood Gates near Boro' Bridge … according to the Plan and Specification exhibited.² The similarity in title and spelling suggests that it was Gravatt's undated specification that had been 'exhibited' to Hutchings. A month later two of the bridge contractors, William Mead and John Stone, submitted a joint tender of £1,860 for the same work.³ Neither of the tenders was accepted and no other tenders at that period for the Stanmoor and Midelney works have been discovered, although Gravatt later said that contractors had contacted him to discuss the designs, 'and I gave advice accordingly – some were too high and some too low.'⁴

In March 1837 articles of agreement were drawn up between the PNC and William Longhurst and his son Richard, road and canal building contractors of Keynsham, for the 'erection of self acting floodgates' at Stanmoor for the sum of £1,173 12s.⁵ A specification was included that was generally based on Gravatt's undated specification but with an additional section that was referred to as 'W. Gravatt's further specification' on the cover sheet of the agreement. It began with a reference to an accompanying drawing that has not been found. Then followed amended details for some of the piles and timber work, with the comment, 'This is an essential improvement on my first design,' and further on:

As to the length of the piles under the Gates, until the Ground is further examined I can only say they must not be less than 9 feet long … the first pile you drive will tell the whole secret if the operation of driving be carefully watched, but not otherwise.⁶

¹ SRO D/RA 3/2/1, PNC Committee Accounts, passim.
² SRO D/RA 3/3/10/38, 'Mr. Hutching's [sic] Tender for the erection of flood Gates near Boro Bridge,' 21 Nov 1836.
⁴ TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, p.41.
⁶ Emphasis as in the original.
The wording of this 'further specification' is identical to that in a paper dated May 1837, signed by Gravatt and headed 'As to the Locks'.

Gravatt later said that the reason for the alteration was that the foundation was not as bad as he had anticipated:

In general I divide [foundations] into three classes - a good one, a moderate one and a bad one, and I called this bad.

He also said that he had laid the sill of the lock sufficiently low so that:

… we could have vessels of even a greater draught than we have been talking of, that the sill might permit vessels of four feet draught to come in, contemplating that [Burrow] shoal would at some future time be removed ... [As] any prudent Engineer would do ... I have made a resolution that I would always allow sufficient, after having pulled up a Lock that Smeaton built because he had not laid his sill low enough.

The evidence around this period is further complicated by statements made by William Longhurst in a letter written on 14 March 1837. Longhurst related that he visited Gravatt's office and 'had the plan perfectly explained' to him:

… and there is a great many of Oak piles to be Driven under Water wich the Specification expresses to be of Fir and the Masonry work Fully double that Shewn on your plan and if I do not leave 400 Pounds in hand they assures me that I am not to have the Contract.

As a result Longhurst had given up the 'former contract' and revised his lump-sum price to £1,173 12s., so now:

… if your honour think proper of Accepting this Amount I am ready to sign the Contract and Leaving £400 in hand until the Contract is Compeleted then to Receive £200 Leaving the Other £200 for 3 Months After Completed.

The most likely sequence of events appears to be as follows. Gravatt produced his original specification and drawings for the works at both Stanmoor and Midelney in time for them to be displayed to prospective tenderers on 20 October 1836. No suitable tenders having been received by the closing date, the PNC concentrated their efforts on negotiating with potential contractors, such as Hutchings and Mead & Stone, for the Stanmoor works only, but to no avail, no doubt because the tendered lump-sums were far above the figure anticipated by the PNC: Brunel had estimated £600 for the 'half

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1 SRO D/RA 3/3/10/39, 'As to the Locks,' May 1837.
2 TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.55, 77, 111. The 'lock that Smeaton built' has not been identified.
Lock with the flood Gates,\textsuperscript{1} and Gravatt's estimate was a little over £1,000 on the assumption that the foundation would be bad.\textsuperscript{2} Eventually the Longhursts tendered for the Stanmoor work some time shortly before 7 March 1837, still on the basis of Gravatt's original specification. After the Longhursts had been awarded the contract, Gravatt then revised his design to incorporate his 'essential improvement,' which he explained to the Longhursts shortly before 14 March. They submitted a new tender on the basis of Gravatt's revised design; their price would be close to Gravatt's estimate, as he later said, 'I never allow a contractor to take the work much under my estimate and certainly not much over it because it is always ample.'\textsuperscript{3} The date of the formal agreement, 7 March 1837, might indicate the date Gravatt gave his verbal explanation of the revisions to the Longhursts. Eventually, in May 1837 Gravatt produced a written specification for the revisions, and this was appended to the revised contract. In the event, the first contract payment to the Longhursts was for £140 on 20 May 1837.\textsuperscript{4} John Allen was taken on as 'resident engineer' in late-April 1837, presumably to supervise the Stanmoor works. It seems likely that interviews for the post had been held earlier that month as an engineer named Bryant was paid travelling expenses of £2 on 19 April for 'coming from Bristol as a resident Engineer, but he was not competent.'\textsuperscript{5}

On 10 March 1837 the Committee ratified the variation in their earlier agreement with Trevilian regarding the collateral drain, on condition that Trevilian would 'continue to afford every reasonable facility to the Company for the completion of their works.'\textsuperscript{6} However, within five weeks, Broadmead had cause to express his 'disappointment and vexation' to Trevilian who now appeared to be dissatisfied with the terms of the agreement, despite Broadmead having induced the Company to pay over £200 more than they were obliged to do, and to make the collateral drain through Westover Farm 120yds. longer than the preferred riverside route. Trevilian's main concerns at this time seem to have been about the likely quantity and quality of the land near Midelney.

\begin{itemize}
  \item \textsuperscript{1} SRO D/RA 3/3/3, evidence taken before the Commons Committee on the Parrett Navigation Bill, I.K. Brunel, 10 May 1836, p.36.
  \item \textsuperscript{2} TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, p.55.
  \item \textsuperscript{3} Ibid, William Gravatt, 15 Mar 1839, p.39.
  \item \textsuperscript{4} SRO D/RA 3/2/1, PNC Committee Accounts, 20 May 1837.
  \item \textsuperscript{5} Ibid, 19 Apr, 15 Jun 1837; emphasis as in the original.
  \item \textsuperscript{6} Vincent Wallis to William Cely Trevilian, 8 Mar 1837: SRO DD/CTV 60; John Hancock to William Cely Trevilian, 19 Mar 1837: ibid; SRO D/RA 3/1/2, PNC Committee Minutes, 10 Mar 1837.
\end{itemize}
Bridge; basically this was the abandoned and filled-in river course that he was to get in exchange for the land for the proposed diversion cut, although, according to Broadmead:

… the company are to make satisfaction to the Tenant until the Land in that bed becomes good, and they are to build an excellent Bridge in lieu of the present old dilapidated one.¹

Negotiations stalled until it became apparent that Trevilian's advisers had misunderstood the part of the agreement that related to Midelney Bridge, believing that the PNC would build an 'excellent bridge' on the site of the existing bridge, plus another new bridge over the new cut. As a result of the misunderstanding construction of the new bridge had not started by June 1837, despite the consortium of Mead, Stone and Mear having been awarded the contract in October 1836.² Sometime during 1837 Gravatt signed a drawing which is certainly a design for Midelney Bridge, though merely titled 'Parrett Navigation.'³ It shows a semi-elliptical masonry arch bridge of 28ft. span and 7ft. rise, over a 23ft. wide 'Canal' and a 5ft. wide towing path (Fig. 7.1). The 'canal' corresponds to the diversion cut for the Isle across Midelney Broadmead, which was specified to be 23ft. wide at the bottom. Not surprisingly the style and details of the bridge were similar to those of the B&ER over-bridges (cf. Fig. 3.3). Only two direct references to the construction of Midelney Bridge have been noted: on 14 April 1838 William Mead was given to notice to finish the bridge, and on 11 May he was paid £62 'on account of his

Figure 7.1  Part of Gravatt's drawing for Midelney Bridge


¹ Nicholas Broadmead to William Cely Trevilian, 15 Apr 1837: SRO DD/CTV 60.
² SRO D/RA 3/3/10/7, 'Prices at which the Bridges were let & agreements for the same', 31 Oct 1836; SRO DD/CTV 60, anonymous notes, 22 Jun 1837.
contract for Middleney Bridge.\footnote{SRO D/RA 3/1/2, PNC Committee Minutes, 14 Apr 1838; SRO D/RA 3/2/1, PNC Committee Accounts, 11 May 1838.} At some stage between Gravatt signing the drawing and construction starting, the line of the towing path was diverted to cross over the bridge from one bank to the other, and the bridge was actually built with a span of about 24ft.; presumably Mead had successfully re-tendered for the revised design without involving Mear and Stone.

In early May 1837 the Committee agreed all the unresolved technical details of the collateral drains. The Muchelney drain would be culverted under the Yeo just below Bicknell's Bridge to join the Long Sutton drain. The united drains would be carried down on the right bank to join with the West Moor drain which would be culverted under the Parrett below Huish Bridge. The combined drain would then be carried down to join the Portlake Rhyne, and from thence to an outfall into the Parrett downstream of the Langport lock and floodgates. Huish Bridge would be replaced by a timber carriageway-bridge at a narrower part of the river, downstream of its existing position. J.F.H. Warren was directed to set out the line and levels of the drains and also to 'take Sections of the Rivers at the two points where the floodgates are to be placed,' which suggests that it was still intended to build floodgates at both Langport and Middleney.\footnote{Ibid, 2 May 1837, present writer's emphasis.}

Other than those to John Harris, no payments to engineering or supervisory staff have been noted between Draper's departure, in October 1836, and mid-June 1837 when John Allen was paid £25 towards his salary as 'resident engineer'; Allen's second salary payment, £14 6s. on 7 July, was described as the 'balance,' implying a final payment.\footnote{SRO D/RA 3/2/1, PNC Committee Accounts, 15 Jun, 7 July 1837.} The only evidence of his actual work is his drawing of an unidentified culvert for use on the Parrett navigation.\footnote{SRO D/RA 3/3/10/27/1, 'Culvert 7ft. span, John Allen, May 1837.'} It is possible that Allen was merely employed on a short-term basis while Charles Hodgkinson, whom the PNC engaged as Resident Engineer on 24 June, worked out a period of notice on a Birmingham canal; Hodgkinson had previously worked on the B&TC and the Kidwelly & Llanelly Canal.\footnote{TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Charles Hodgkinson, 14 Mar 1839, p.136.} Nothing more is known about Hodgkinson's previous career, but he seems to have proved himself capable of planning and supervising the construction of the Parrett navigation without much help from Gravatt, albeit Broadmead took it upon himself to meet him daily, 'to consider what
was best to be done.\textsuperscript{1} Hodgkinson's salary on the PNC was £250 per year plus a house; he had no written contract of employment, which was a factor that would have potentially serious consequences for him nine months later.

\textsuperscript{1} TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Nicholas Broadmead, 13 Mar 1839, pp.8-9. Tony Haskell has noted the coincidence in name and profession hints at a family connection with another Hodgkinson who was, according to Haskell, Resident Engineer on the B&TC for a short time before his death in September 1826: Haskell T., op.cit., p.25. Certainly there was an 'engineer' named Hodgkinson working on the B&TC in February
The Committee demonstrated their early confidence in Hodgkinson's proficiency by resolving to advertise another large package of works in July – to build the locks at Langport and Midelney and the culverts for carrying the drains under the rivers, and to complete all the collateral drains. The locks were to be 70ft. long and 16ft. wide with 'Floodgates across the river opposite the locks.'¹ However, within a week of the advertisements being published the Committee revoked their resolution, having become belatedly aware of the huge scale of the undertaking, their inability to control the costs and the programme, and the problems resulting from inadequate day-to-day engineering expertise. It seems likely that Hodgkinson had alerted them to the fact that they were now faced with a serious financial difficulty as the result of their naivety; in Broadmead's words, 'Within 12 months after the Act was passed £13,800 was spent & they then found out that additional funds would be required.' He felt they had been 'deceived in estimates,' as the scope of the work was far more extensive than either Jones or Brunel had foreseen, particularly the collateral drains. Also, the Act had cost the PNC over £4,000 against the original estimate of £1,000, due to 'vexatious opposition' orchestrated by the B&TC.² Thomas Bagehot, a member of the PNC Management Committee and a partner in the firm of Stuckey & Bagehot, later admitted that at the time of passing the Bill the promoters did not think the costs of the works were an issue worth consideration.³ The PNC's problems were further compounded by a rapid and substantial rise in wages in Somerset, triggered by the competing construction projects that were concurrently underway. Gravatt later mentioned as examples the B&ER itself, 'which had swallowed up a great many men'; the extension of the B&TC from Huntworth to Bridgwater; and the Chard Canal. He reckoned that a 'Navigator' ('navvy'), could shift 20 cubic yards of 'good light stuff,' compared to the 5 to 7 cubic yards of a

¹ SRO D/RA 3/1/2, PNC Committee Minutes, 4 Jul 1837; notice inviting tenders, dated 6 July 1837: Taunton Courier 12 Jul 1837.
² SRO D/RA 3/3/5/3, evidence taken before the Lords Committee on the Parrett Navigation Bill (further powers), Nicholas Broadmead, 4 Jun 1839, p.4.
³ SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Thomas Watson Bagehot, 15 Mar 1839, p.17.
'Countryman' (field labourer), so there was no advantage in employing the latter on a lower wage.¹

The Committee resolved to complete Stanmoor lock (the Longhursts were still working on this structure) and the towing paths from there up to Langport as soon as possible in order to generate some toll income that would enable them to borrow sufficient funds to finish the works.² A major factor in their decision not to recommend the immediate suspension of the works was the cost of discharging the staff and of having to re-engage them when the problems had been resolved.³ There is no evidence that Gravatt himself was asked at that time to estimate and advise on the outstanding works; however, he made a tour of inspection of the works-in-progress with Hodgkinson shortly before 24 August and reported to the Committee in mid-September.⁴ Essentially his report was a catalogue of faults in the masonry of the bridges and sustaining walls, unacceptable departures from the details on the drawings, and misalignments of the canal. Although the work at Stanmoor was in a forward state, the Longhursts were in danger of being 'thrown into bad weather' unless they improved their progress.⁵ Gravatt noted that he needed a large scale plan of the area around the Parrett/Isle confluence so that he could determine the location of the Midelney lock; clearly the layout of the lock had still not been finalised. The undated plan, with details of the proposals drawn on, was completed by 20 September, which is the date of a written explanation which accompanied it. Gravatt now proposed an oblique weir, not a set of floodgates, in the existing channel of the Isle about 200yds. upstream of its confluence with the Parrett;

¹ TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.8-14.
² SRO D/RA 3/1/2, PNC Committee Minutes, 18 Jul 1837. In effect, the Company kept going on money borrowed from stakeholders; for details of the re-financing arrangements see: Body G. & Gallop R., op.cit., pp.16-17.
³ SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Thomas Watson Bagehot, 15 Mar 1839, p.17.
⁴ SRO D/RA 3/3/10/15, 'Gravatt's Report,' signed and dated 'Wm Gravatt, [London August 24th 1837 – crossed out] Bristol Sepr 16th 1837', but endorsed 'Sepr 15th 1837.' In the report Gravatt states that it was 'some time' since he had explained at considerable length to Hodgkinson the contents of the report.
⁵ At about that time John Gillett was paid £13 16s. 6d, for 'attending the work at Stanmoor, measuring it &c.,' possibly in connection with a stage payment to the Longhursts or an estimate of the work still outstanding: SRO D/RA 3/2/1, PNC Committee Accounts, 11 Sep 1837.
presumably a cost-saving expedient. The proposed lock was shown in a new cut, 18ft.
wide at the bottom, to the north of the weir.1

Writing in September 1837, Trevilian's son set out his view of the PNC's current
problems, and incidentally gave an insight to the high regard in which the Committee
held Hodgkinson at that time. The principal cause of the financial difficulty, he wrote,
arose from the acceptance of Joseph Jones' 'trifling' estimate of £7,630 for all the works:

… which, promising as it did so much advantage, was the trap in which
the Projectors were caught. In the progress of the work, they discovered
that they were in great error on this head, & they have now another
Engineer, a Mr. Hodgkinson, a Man of a very different sort, & of whom
they have a high opinion. His estimate, & which he now makes with the
advantage of observation on what has been already done, is £21,000.
Now the Act of Parliament empowered the Company to collect by shares
£10,500, & by Mortgage of the Tolls £3,300 = £13,800 – all the rest of
£21,000 is deficient; & they have now agreed to borrow £4,000 at 5 pr
cent ... It is really surprising to see clever persons like Broadmead & the
rest prove themselves after all to be so brainless.2

By early December 1837 Broadmead had suggested that it would be in the
interests of all parties to locate the replacement for Barge Bridge to a point about
400yds. downstream, at Muchelney Ford. As far as the travelling public was concerned,
the route via the ford was shorter and straighter than that via Westover, and since the
turnpike road between Muchelney and Langport had been opened in 1830 the crossing at
Westover had ceased to be of much consequence anyway. Trevilian's advisers
recommended that he agree to pay the £100 he and Walter Long were each being asked
to contribute towards the proposals, as the benefits to his Westover property would be
significant: not only would the bridge maintenance costs be saved but also a public
footpath running through the farm could be done away with, rendering the property more
private.3 Trevilian himself felt that in the circumstances it was not worth his while to
contribute more than £20, but Long agreed to contribute £100 despite the fact that the
benefits to his property and tenants were far less than Trevilian's. Broadmead took the
audacious step of surreptitiously approaching Trevilian's son, who Broadmead believed
was willing to agree to the arrangement, with a suggestion that:

1 SRO D/RA 3/3/10/27/8, 'Plan of land at the confluence of the rivers Isle and Parrett,'
undated [1837]; SRO D/RA 3/3/10/37, 'Explanation to accompany the Drawing shewing
the situation of Middleney Lock, the New Channel and the Weir,' 20 Sep 1837.
2 Maurice Cely Trevilian to William Cely Trevilian, undated but postmarked 11 Sep
1837: SRO DD/CTV 54.
3 John Hancock to Maurice Cely Trevilian, 28 Dec 1837: ibid; James Randolph to
William Cely Trevilian, 2 Jan 1838: ibid.
… you would give your note for the payment of the £100 and interest out of the rents of the Estate after your father's death, as I would in that case endeavour to arrange the matter for you with the Parrett Navigation Co. It would be a mere simple agreement between you and myself & not to be mentioned to your father.

Trevilian junior responded to this presumptuous suggestion by giving Broadmead, in his own words, 'a rap over the knuckles,' but he did admit to Broadmead that his father was perhaps in error over the comparative benefits to himself and Long.¹ This prompted Broadmead to set out a detailed case demonstrating that the financial advantages to Trevilian and Long were 3 to 1 in favour of Trevilian.² In the event, Trevilian senior contributed £50.³

Another package of works was advertised in January 1838 for building bridges over the collateral cuts at various points and forming the towing path from Barge Bridge up to Midelney Bridge.⁴ Among the tenders and contract details that have been found for the bridge works there are three drawings of bridges over collateral cuts, and one

¹ Nicholas Broadmead to Maurice Cely Trevilian, 6 Feb 1838: SRO DD/CTV 54; Maurice Cely Trevilian to William Cely Trevilian, 20 Feb 1838: ibid. Maurice Trevilian wrote to Broadmead:

I must beg to state that I reject without a moment's hesitation the proposition … without however presuming to pass a reflection upon the view you must of course take of a proceeding such as it involves, excepting that that view differs widely from mine; for, for my part, I cannot imagine a man to do a more presumptuous thing in the presence (which we at all times are) of Him who directs all things; of whose intentions I cannot possibly know so much as to assume with confidence that He intends I shall outlive my Father; & before whom even were I so assured, I do not feel that I sh'd be a whit more justified in forestalling the Benefit so intended me:

Maurice Cely Trevilian to Nicholas Broadmead, 6 Feb 1838, draft letter: ibid.

² Nicholas Broadmead to Maurice Cely Trevilian, 19 Feb 1838: ibid; Maurice Cely Trevilian to William Cely Trevilian, 20 Feb 1838: ibid. Broadmead reminded Trevilian junior that Long had already contributed £250 in cash towards the new turnpike road without demanding any return on it, and:

… if a good bridge were erected at Muchelney Ford, the Westover Farm would have all the benefit of Mr. Long's outlay for this Turnpike, without subscribing a farthing towards it, and thus have a good communication with Langport, Somerton, Ilchester, Yeovil, &c.

³ In August 1838 the Committee reported that Trevilian and Long were to contribute £150 between them: SRO D/RA 3/3/10/30, PNC Committee report to the Annual General Meeting, 29 Aug 1838. Trevilian was later paid his purchase money for the land taken at Midelney and Westover, '… less £50 contributed towards the New Bridge at Muchelney Ford': SRO D/RA 3/2/1, PNC Committee Accounts, 16 Sep 1839.

⁴ SRO D/RA 3/1/2, PNC Committee Minutes, 25 Jan 1838; notice inviting tenders, dated 26 January 1838: Somerset County Gazette 27 Jan 1838.
specification, all signed by the successful tenderers. The drawings were not drawn in the same hand, or to the same high-quality draughting standard, as those typically produced and signed by Gravatt for the PNC works; the specification is loosely based on Gravatt's earlier draft for the bridges over the collateral cuts that were tendered for in 1836. It seems most likely that these drawings and the specification were prepared by or for Hodgkinson with no direct reference to Gravatt. At about that time, the PNC purchased a lias limestone quarry at Pibsbury and employed their own labourers there to raise stone for the works. Elsewhere, the Longhursts, who were by now in serious financial difficulty, had effectively completed the Stanmoor lock and floodgates, although there were still works outstanding which under normal circumstances they would have carried out as extra works. However, the deductions which the PNC were entitled to make under the terms of the contract brought the total sum payable to them to less than £700.

Figure 7.2 Part of Hodgkinson's (?) drawing for Watery Lane Bridge

Source: SRO D/RA 3/3/10/27/4, 'Bridge, Watery Lane,' undated [1838].

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whereas Gravatt felt the fair value of completed work, plus a proper rate of profit, would be £966. The Committee authorised a payment of £900 and no more, 'and this upon condition that the Clerk apply it in payment to their Creditors.'

By February 1838 the Committee felt confident that they had sufficient financial means to be able to press on with the locks at Langport and Midelney using direct labour. Hodgkinson was directed to begin excavating the lock pits 'as soon as the frost breaks up,' and it was only then that the first borings were made to ascertain the foundation conditions at the site of the Langport lock. The results were far from satisfactory due to 'the excessive badness of soil, being peat' and, in the event, 26ft. long piles were required to support the works. Hodgkinson had let the excavation of the top eight feet depth of the locks by mid-April, when the Committee urged him to use 'extra exertions' to get the locks completed and fit for use by 1 October, and all the other works by 1 November, with the promise of a 'present' of £100 for himself and £50 to be shared between the foremen if the target dates were met. He was finding it increasingly difficult to engage craftsmen locally, particularly masons, and he was authorised to search further afield.

The Committee now turned to Gravatt for help in getting the Langport and Midelney works properly under way. They urged him to use his influence and contacts in the Bristol area to get the outstanding works contracted for; if that was found impracticable, then they would carry on using direct labour, with a foreman for each set of works. Gravatt tried hard to induce some of the larger contractors to take the work, even going so far as to offer a 'friendly' loan to one contractor which, in Gravatt's own words, 'is as far as a man can go.' Eventually he had a promising result when a draft agreement was drawn up in April between the PNC and two Bristol contractors, James Dudley and William Bush, who were probably known to Gravatt from his railway

2 SRO D/RA 3/1/2, PNC Committee Minutes, 14 Feb 1838; TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Nicholas Broadmead, 13 Mar 1839, p.12. Robert Savery was paid £3 5s. 9d for 'boring for foundations for Lock at Langport': SRO D/RA 3/2/1, PNC Committee Accounts, 5 Feb 1838.
3 SRO D/RA 3/1/2, PNC Committee Minutes, 14 Apr 1838. Hodgkinson reported that sufficient sawyers and carpenters, but very few masons, could be found locally.
5 TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.17, 104.
work.1 They were to build Langport and Midelney locks, a 'set of floodgates' opposite Langport lock, and the culverts under the Yeo, Parrett and Isle, for £2,500, all to be completed by 2 September 1838. All the works were to comply with Gravatt's specifications and plans, but once again the plans have not been located and without them the wording of the specifications is so general as to be of little value in determining the structural form of the works. However, it is noteworthy that the specification for the locks provided that the contract was to include the execution of all the work shown in the drawings and also:

... every thing that can fairly be considered as required in the Execution of two Complete Locks and one pair of floodgates although the same may happen to be omitted in the Drawings or Specification or both.2

There is a discrepancy between 'a set of floodgates' in the agreement and 'one pair of floodgates' in the specification. Given that the stated objective of the self-acting principle was 'to give as much waterway in the said rivers as if no locks, floodgates, weirs or dams had been erected', then the dimensions of a 'pair' of flood-gates would have had to be monumental; it seems most likely that a 'set' of gates was intended. Under the terms of the agreement, the PNC would supply limestone from their Pibsbury quarry. The specification set out the minimum numbers of labourers and craftsmen to be employed on each lock and the floodgates, and gives some indication of the scale of the work:

30 Excavators at Langport Lock and 15 at the confluence of the Rivers [Parrett and Isle] ... Ten masons to be employed either in preparing and dressing stone or building each Set of Locks and five men in building a floodgate ... Eighteen Carpenters shall be constantly employed in making Lock Gates, floodgates and other Timber work ... Sixteen Laborers shall be employed in using the piling engines and proceeding with the necessary works in erecting the Locks and Floodgates.

In the event, nothing came of the proposed agreement.

During this period Hodgkinson came under attack from the Committee for 'want of energy in the direction of their works,' and he became apprehensive that he had no written agreement which stipulated the period of notice to quit, should he feel it necessary to resign. According to Hodgkinson, his insistence on a written agreement

1 SRO D/RA 3/3/10/33, 'Proposed agreement with Messrs Jas Jno Dudley & Wm Bush for locks & culverts, April 1838,' present writer's emphasis. Dudley was described as an 'Engineer', Bush as a 'Millwright & Engineer.'
resulted in an implied charge against him of pressing the PNC to agree to continue him in their service against their wishes. His response to the charge of 'want of energy' was that the delays and contractual problems were caused by circumstances beyond his control. As to his desire for a written agreement:

I have observed that the Committee appear to wish (and expect) the works completed sooner than in all probability they can be and that it is likely the Locks may fall into someone's hands who have had little or no experience in the execution of such works, and feeling that in case of any failure I should fall in for my full share of blame these considerations induced me to obtain the agreement that such being the case, I should have it in my power by giving a proper notice to quit the Company's service if I saw I could no longer conduct the business to their satisfaction or my own Credit.¹

The discord was quickly resolved and Hodgkinson was given a written agreement stating that three months notice was to be given by either party prior to its termination.² Whether the absence of such an agreement was a normal state of affairs for a Resident Engineer of Hodgkinson's standing and experience has not been ascertained.

Doubts now began to arise as to whether the Stanmoor floodgates could provide 3ft. of water at all times, as required by the Act.³ The decision not to build a lock somewhere between Stanmoor and Langport had, of course, been based on Brunel's opinion that he 'did not see the object of having one there.'⁴ Now, fearing it might be otherwise, the Committee directed Gravatt to prepare drawings for a lock and floodgates at Oath, for use should it later prove necessary. The design was quickly done, being, in Gravatt's words, 'merely the adaptation – there was a Lock above it with an equally bad foundation so that [the design] was all ready to their hands.'⁵ Hodgkinson continued to supervise the construction of the Langport and Midelney locks and floodgates by direct labour. As with the constructional details, records of progress during their building are

² The written agreement is ostensibly dated 24 Jun 1837 but was probably drawn up and signed in early March 1838: SRO D/RA 3/3/10/2, 'Agreement with Mr. Hodgkinson,' 24 Jun 1837; SRO D/RA 3/1/2, PNC Committee Minutes, 10 Mar 1838.
³ SRO D/RA 3/3/5/1, draft Brief for the Promoters of the Parrett Navigation Bill (further powers), undated [May 1839], p.8. The problem was likely to be most acute 'in the very dryest time of the year, vizt. in the months of September & October.'
⁵ TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.63-64.
scant. During June, July and August 1838 James Heddon, Thomas Chapman and Richard Chappell were supervising labourers and masons at both sites, supplemented at Midelney with men supplied by Richard Stone; James Denham built the masonry invert there.\(^1\) Summer floods hindered progress and cost the PNC £1,300, of which £300 was paid in compensation when a breach of the bank at Midelney lock flooded 90 acres of land about to be mowed. Most of the remainder was spent at Langport lock:

In consequence of these floods we were repeatedly driven off the works … We had got the water way and prepared the foundation, and the floods came & swept over the banks, & we had to do all over again.\(^2\)

A milestone was reached on 4 July 1838 when tolls were collected at Stanmoo lock for the first time.\(^3\) Robert Cross of Stoke St. Gregory was appointed to take charge of the lock and floodgates on 16 July; he took up his post a week later.\(^4\) In September he was issued with printed instructions which detailed the sequence of operations for opening and closing the gates:

The Gates are to be kept entirely open eight Tides before and eight Tides after the highest Tide. At all other times, except the River Water stands three feet deep at low water on the Shoal next below Borough Bridge, you are to close the Gates two hours and half before the computed time of the flowing of the Tide at the Floodgates, and keep them closed until the Boats nearly reach Borough Bridge by the first flow of the Tide; they are then to be opened, the empty Boats are to pass down, and the Floodgates are to remain open until all the Boats pass up through them with the Tide, for which you are to allow twenty minutes and no more from the arrival of the first Boat … At the end of the twenty minutes … you are to close the Gates and keep them closed four hours. You may however, before the flow of the Tide, let off a portion of the waters by the paddles in the

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\(^1\) SRO D/RA 3/3/10/21, PNC Committee Proceedings, 13 Jun 1839, copy made and sent to Hodgkinson, 15 Jun 1839; SRO D/RA 3/2/1, PNC Committee Accounts, 25 Jun – 18 Aug 1838 passim. Richard Chappell was paid £8 17s. for travelling to engage masons from other districts: ibid., 7 Jul 1838.

\(^2\) TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Nicholas Broadmead, 13 Mar 1839, pp.13-15; SRO D/RA 3/3/5/1, draft Brief for the Promoters of the Parrett Navigation Bill (further powers), undated [May 1839], p.7. In June 1838 Job Gillard was paid £7 for damage to his land 'by flood in consequence of the Lock pit': SRO D/RA 3/2/1, PNC Committee Accounts, 27 Jun 1838.

\(^3\) SRO D/RA 3/1/2, PNC Committee Minutes, 29 Jun 1838; SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William How, 20 Mar 1839, p.25.

Floodgates when it may be necessary to deepen the tidal waters for bringing up the Boats to Borough Bridge.¹

Stuckey & Bagehot's manager, Uriah Burt, reported on some encouraging observations he made between July and October 1838, of the operations at Stanmoor; he had:

... tried the experiment of flashing the lock, which is the shutting up of the Stanmoor Floodgates for two hours and then letting it go all at once, by which he found considerable advantage ... he tried it 2 or 3 times in neap ... the tide comes up to Burrow Stones about 20 minutes after the flashing ... by the flashing a [boat] of 15 tons will come thro' the lock ... the head of water was nearly exhausted in the half hour, when the boats were inside the lock - they sometimes went on immediately and sometimes had to wait two hours ... 50 boats could come over at the flashing - it would continue for half an hour - have had boats up several times when there has been no tide at Burrow Stones.²

Despite the Committee's earlier exhortation to Hodgkinson, work on the Langport and Midelney locks was at a virtual standstill between September 1838 and late January 1839, when the Committee directed that he should immediately proceed with the floodgates at the former and the stone weir at the latter.³ The only effective work to have been carried out through the winter months was finishing off the towpaths, 'which is all the improvement that the navigation is capable of at that time of year.'⁴

With the Stanmoor lock and gates now in operation, the Management Committee was able to present an optimistic progress report to the PNC's second Annual General Meeting on 29 August 1838. Construction of Langport and Midelney locks was well forward, and the West Moor works and the collateral drain were almost complete. The principal unfinished works were the new bridge at Muchelney Ford, the three culverts for carrying the drains under the rivers and several small bridges. The Committee concluded with an assurance that it was their constant endeavour to ensure the works were carried out well and expeditiously:

... and if they have not succeeded ... it has been from your Principal Engineer's engagements in the greater concern of the Bristol and Exeter

¹ SRO D/RA 3/3/12, 'Directions to the keeper of the floodgates at Stanmoor,' 7 Sep 1838.
² SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Uriah Burt, 15 Mar 1839, pp.13-14.
⁴ SRO D/RA 3/3/5/1, draft Brief for the Promoters of the Parrett Navigation Bill (further powers), undated [May 1839], p.8.
That Gravatt's 'engagements in the greater concern' were beyond their control is certainly true, but that this was some sort of justification for the work not being performed well and expeditiously is questionable. Furthermore, no documentary evidence has been found to suggest that the PNC Committee was ever dissatisfied with the manner in which Gravatt carried out his duties. However, as has been noted earlier Gravatt himself later stated:

I cannot afford to give a number of days consecutively but must give them when I can – therefore the works that were most pressing they wrote to me requesting me to come and see about them.\(^2\)

Unfortunately, there is no relevant detailed evidence relating to his activities on the B&ER and the Parrett Navigation up this time which could provide data to test the Committee's contention.

It was resolved unanimously at the Annual Meeting on 29 August to apply for a Bill for further powers, authorising the PNC to raise additional capital of £12,000, to increase tolls on various stretches of the Parrett, and to impose a toll on goods proceeding from Langport up the Yeo.\(^3\) The decision to go for a further Act offered the PNC an opportunity to tidy up some loose ends; for example, a sketchy plan of a proposed scheme to enlarge the Portlake Rhyne was deposited with the Clerk of the Peace on 24 November 1838.\(^4\) There was also an opportunity to repeal the Langport Bridge clause in the original Act. By October 1838 attention had already begun to shift towards Langport Bridge and the area around it. Maurice Davis, a Langport builder who was engaged by the Corporation to assess the condition of the bridge, reported, 'I have seen enough to justify me in saying that generally the Bridge is in very bad repair and

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\(^1\) SRO D/RA 3/3/10/30, PNC Committee Report to the Annual General Meeting, 29 Aug 1838.
\(^2\) TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.40-41.
\(^3\) SRO D/RA 3/1/1, Minutes of PNC General Meeting, 29 Aug 1838.
\(^4\) SRO Q/RUp 138, 'Parrett Navigation, plan and section of new cut at Langport, surveyor: J.H. Warren,' deposited 24 Nov 1838. Two copies of a larger scale plan and section showing the same scheme were deposited on 10 May 1839: SRO Q/RUp 146. In consequence of recent changes in the Parliamentary Standing Orders the second copy carries the wording:

Additional Plan and Section on the same scale as the above the both Plans and Sections being on the enlarged scale for buildings required by the Houses of Lords and Commons.
that the [main arch] is very dangerous. At the same time, Thomas Hutchings recalled his examination of the foundations of the arches while he was installing Lovibond's railway in 1833:

I found them in a very loose delapidated state and principally Rubbish stone thrown in an irregular manner. The natural ground being a bed of Peat many feet in depth. I also discovered the principal arch to be in a dangerous condition, and the foundation of the abutting piers of the same very much decayed and the Bridge upon the whole not safe to the public.²

Broadmead reopened negotiations with the Corporation regarding their 1836 offer to make a conditioned payment of £500 towards the costs of rebuilding the bridge and eventually, on 6 March 1839, both parties signed a formal agreement.³ The agreement included a clause that was intended to be introduced into the Bill for further powers, authorising the PNC to reimburse their expenses up to a limit of £3,000 by levying tolls not exceeding 10d. per ton on goods carried 'to, through, above and beyond' the bridge, or 'landed above Stanmoor Floodgates,' on condition that the PNC rebuilt the bridge and maintained it and the roadway in perpetuity. The bridge would have a waterway width of not less than 90ft. in not more than three arches, with a carriageway width of 19ft. and a footway width of 5ft. The river bed under the arches would be lowered at least 1ft. below the sill of the existing bridge.⁴ No evidence has been found that points to Gravatt having been involved in negotiating these conditions.

On 1 March 1839 the PNC Committee approved Broadmead's draft of the Bill for further powers, subject to the insertion of a condition which prevented tolls being taken unless a 3ft. depth of water was kept up 'for a sufficient time for enabling the laden barges which are brought up by the tide to pass on to Langport.' As feared, it had become evident that a 3ft. depth of water could not always be kept up between Langport and Stanmoor for the required time using the lock and floodgates at Stanmoor alone, and the inclusion of this clause had been requested by Thomas Bagehot who felt that the 3ft. depth would add two navigable days in each set of tides and also enable the use of larger

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¹ SRO D/B/la 29, 'M. Davis' Report,' 7 Nov 1838; ibid, 'Plan referred to in M. Davis' Report', undated [1838]. There is a typed transcript of the report and a tracing of the elevation in: SRO D/RA 2/9/54.
² Thomas Hutchings to Richard Caines (the Corporation's Portreeve), 31 Oct 1838: SRO D/B/la 29.
³ SRO D/B/la 8, 15 Feb 1839; SRO D/B/la 29, 'Agreement as to Langport Bridge,' 6 Mar 1839.
⁴ There is a draft of the clause, prepared by the Corporation's clerk and amended by Broadmead, in: SRO D/B/la 29, 'Proposed clauses as to Langport Bridge,' undated [c. February 1839].
barges. Although the flood-gates at Langport were still under construction, the lock had been sufficiently completed for Hodgkinson to test whether the required depth of water down to Stanmoor could be achieved by opening the paddles in the lock gates. The results of the trials have not been found but they cannot have been successful as the decision to build a lock and flood-gates at Oath lock had been taken by mid-March.

The Commons Committee considering the Parrett Navigation Bill (further powers) sat from 13-16 March 1839. Opposition to the Bill came from Henry and John Lovibond who claimed they would lose £400 from the destruction of the 'railway' or 'tram' if Langport Bridge were to be rebuilt, and from some local merchants who feared they would lose trade. Giving evidence on 13 March, Broadmead stated that expenditure to date was about £24,000 and the estimated final cost was now £30,000. The two major items contributing to the increase were the cost of obtaining the original Act, and of the construction of the collateral drains which Brunel had estimated at £500-£600 but which would actually cost the colossal sum of £7,451. Under examination the next day Hodgkinson asserted that the drains were absolutely essential to the operation of the navigation and the protection of the riverside land; he felt that £7,451 was a reasonable sum for the amount of work that was entailed. He said he could have

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2 SRO D/RA 3/1/2, PNC Committee Minutes, 1 Mar 1839; TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.58, 64-65, 84; SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Thomas Watson Bagehot, 15 Mar 1839, p.17. The results of trial borings at Oath were sent to Gravatt at this time: TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, p.58.
3 TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), passim; SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), passim.
4 SRO D/RA 3/3/5/1, draft Brief for the Promoters of the Parrett Navigation Bill (further powers), undated [May 1839], pp.1, 21.
5 SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Nicholas Broadmead, 13,14 Mar 1839, pp.1-7 passim.
6 TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Charles Hodgkinson, 14 Mar 1839, pp.129-164. £2,900 was for land acquisition, £1,816 for excavating the drains, £1,885 for bridges and culverts, £400 for staff salaries and wages, and £450 for outstanding works, which included enlarging the Portlake Rhyne.
provided the PNC with an estimate of the likely costs of any or all of the works at any time, but he was never asked to. He was cross-examined at length about the apparently foolhardy behaviour of the PNC in not asking for proper estimates and for not taking advice from an engineer on the suitability and sufficiency of the tenders, particularly those for cutting the collateral drains; no doubt with an eye to his future prospects with the PNC, he would only go so far as to agree that it might have been prudent for them to have done so.\(^1\) Gravatt's examination, which followed on 15 March,\(^2\) was generally similar to that of Hodgkinson but he was also questioned about the effect on the PNC works of the rise in wages. He said that he had anticipated a greater rise than had actually taken place, and this was reflected in his over-estimating the cost of the works carried out so far. He therefore felt that his latest estimate of £30,000 for the total costs was moderate for such an undertaking.\(^3\) Like Hodgkinson, he stressed that the PNC had never asked him for estimates, and he emphasised that his role was essentially to respond to the PNC's directions.

Hodgkinson recorded the depths of water on the sills of Langport Bridge on 18 March 1839 when, due to a 'partial flood' in the river, the penned level at the Langport lock was 2ft. 1¾ ins. below the level permitted by the Act. The depths under the five arches that he roughly sketched in a letter to Broadmead varied from 7 ins. to 1 ft. 4 ins., with a depth of 1 ft. 1 in. on the sill of the largest main arch, under which Hodgkinson noted 'Boats Pass.'\(^4\) This suggested that a navigable depth of at least 3 ft. could be attained under the large arch, under normal penning conditions.

The Commons Committee rejected the Lovibonds' claim, and on 6 April Henry Lovibond applied to Broadmead for a compensation clause, threatening to oppose the Bill in the Lords if the PNC refused. On condition that the Lovibonds would petition the Commons Committee on the Parrett Navigation Bill (further powers), Charles Hodgkinson, 14 Mar 1839, p.153.

\(^1\) At one point Hodgkinson was asked whether it was not better to consult an engineer about such matters in the case of larger works:

\begin{quote}
\textit{Hodgkinson:} I should think it better to do so. \\
\textit{Q:} Are not men mad who do not do it? \\
\textit{Hodgkinson:} I cannot decide upon that. \\
\textit{Q:} Is it not evidence of insanity that a man enters into a contract for £3,000 that an Engineer will tell him will cost £7,000? \\
\textit{Hodgkinson:} I am not a surgeon.
\end{quote}

TPA HC/CL/PB/2/5/14, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), Charles Hodgkinson, 14 Mar 1839, p.153.


\(^3\) SRO D/RA 3/3/5/2, evidence taken before the Commons Committee on the Parrett Navigation Bill (further powers), William Gravatt, 15 Mar 1839, pp.9-12 passim.

Lords in favour of the Bill, Broadmead agreed to introduce a clause which would provide for them to be paid £200, of which Henry's share would be £160; if the Lords Committee would not allow the clause, the PNC would pay him £100. Henry Lovibond and Broadmead signed an agreement to that effect on 8 April 1839.¹

The anticipated opening of the canal on 2 April 1839 was not to be; at the end of April Hodgkinson reported that at the Langport 'Flood Lock' the gates were all fixed and the piles all driven but only now had the masons commenced pitching the bottom, and piling was still underway at the Midelney weir.² In the event, the canal opened to navigation on 20 May 1839, when Hodgkinson recorded that there was a 4ft. depth of water all the way from Langport to the end of the West Moor canal, except for a few minor shoals.³ The same day he began experiments 'to try whether the 3ft. of water could be secured all the way between Langport and Stanmoor after each tide,' with a view to determining the optimum mode and time of penning and releasing the water. By 24 May 1839, there having been no rain of any consequence for two months, he was able to conclude that:

Supposing the quantity of water & the weeds which keep back a portion of it to continue the same as at present … with the Oath Locks the 3 feet will always be secured on each tide.⁴

The results of a fortnight's experimentation were submitted to Gravatt, who found them:

… perfectly satisfactory to show that with the aid of the Oath Locks & Floodgates there will be always plenty of water to secure the depth of 3ft. of water after each tide for the passage of the barges up & down.⁵

The Lords Committee sat from 4 to 6 June 1839 and the Act for further powers received the Royal Assent on 14 June 1839.⁶ Construction of the Oath lock and

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¹ SRO D/RA 3/3/5/1, draft Brief for the Promoters of the Parrett Navigation Bill (further powers), undated [May 1839], p.21; SRO D/RA 3/3/12, 'Mr. Henry Lovibond - Agreement,' 8 Apr 1839. No similar agreement with John Lovibond has been found.
³ The Committee later resolved that:

… the water shall … be turned off from the Yeo at the Tanyard and from the Parrett at the entrance of the Isle and fifty men be employed to dredge the shoals from Langport Bridge upwards:

SRO D/RA 3/3/10/21, PNC Committee Proceedings, 13 Jun 1839, copy made and sent to Hodgkinson, 15 Jun 1839.
⁴ SRO D/RA 3/3/5/1, Proof of Charles Hodgkinson, undated [May 1839], pp.30-33 passim.
⁵ Ibid, Proof of William Gravatt, undated [May 1839], p.52.
floodgates commenced later that month. Hodgkinson was directed to employ ten masons
to prepare stone for this site and for the Cocklemoor bridge, and another ten masons to
build the latter, under the supervision of James Heddon.\(^1\) In the same month Gravatt
prepared a drawing of a stone bridge with a semi-elliptical arch of 40ft. span and 8ft.
rise, on piled foundations, for the site at Muchelney Ford (Figure 7.3).\(^2\) Once again, the
style and details of the bridge were generally similar to those of the B&ER over-bridges.
On 17 July he submitted an estimate of £1,001 16s. for a stone bridge such as this, and
£620 for a timber bridge of an unspecified form.\(^3\) In the event a timber bridge was built
in 1840; the only records of its construction that have been found are a few fragmentary
financial accounts of payments to John Lock, who was almost certainly the contractor.\(^4\)

The Langport and Oath locks were operational by 18 October 1839, when the
Committee resolved that tolls would be collected from 28 October 1839, which was the
commencement of the next set of neap tides.\(^5\) Payments to Gravatt up to this date
totalled £700.\(^6\) The main focus of attention had already shifted to rebuilding Langport

\(^1\) SRO D/RA 3/3/10/21, PNC Committee Proceedings, 13 Jun 1839, copy made and sent
to Hodgkinson, 15 Jun 1839. Work started on the Cocklemoor bridge on 14 Jun 1839.
The final cost of the bridge was £331, of which £22 10s. was paid to George Denham for
building a brick invert: SRO D/RA 3/3/10/1, 'As to Cocklemoor Bridge, statements
shewn to Mr. Bagehot,' 24 Aug 1840; SRO D/RA 3/3/10/26, 'Cost of building
Cocklemoor Bridge,' Dec 1840. The final account for the bridge construction contains no
items relating to piling; however, it does include payments for 500 cu.yds. of excavation
and 161 cu.yds. of concrete, so it seems reasonable to assume that the abutments, piers
and wingwalls were supported on concrete spread foundations. Details of the history of
this bridge are based on: Greenfield D.J., 'Cocklemoor Bridge, Langport' (unpublished
historical report, 2005).

\(^2\) SRO D/RA 3/3/10/27/7, 'Muchelney Bridge,' Jun 1839.

\(^3\) SRO D/RA 3/3/10/13, 'Mr. Gravatt's estimate of Muchelney Bridge, 17 July 1839,'
copy made 17 Jul 1839.

\(^4\) SRO D/RA 3/2/1, PNC Committee Accounts, 9 May-11 Nov 1840 passim. Thomas
Chapman was paid £11 16s. 7d. on 11 Nov 1840 for taking down and removing the piers
of Barge Bridge: ibid, 11 Nov 1840. The Muchelney Ford Bridge had become known as
Westover Bridge by 1881, when it was described as a wooden bridge 'in a very bad
state'; it was rebuilt sometime between December 1881 and April 1883 as a 'timber
bridge on stone abutments and a central pier of timber pile': SRO D/RA 2/4/24/2,
Commution of Liabilities of the Somerset Drainage Commissioners, Report of the
Parrett Navigation Committee, 1881; SRO DD/LC 33/1, Langport District Drainage
Board Minutes, 6 Dec 1881; SRO D/R/la 32/1/2, Langport Highway Board Minutes, 26
Apr 1883; SRO D/RA 2/4/24/3, 'Report upon the whole of the works formerly belonging
to the Parrett Navigation Company,' by William Lunn, Engineer to the Somerset
Drainage Commissioners, 8 Dec 1900.

\(^5\) SRO D/RA 3/1/2, PNC Committee Minutes, 18 Oct 1839.

\(^6\) SRO D/RA 3/2/1, PNC Committee Accounts, 25 Nov 1839, 9 Oct 1840.
Figure 7.3   Part of Gravatt's drawing for Muchelney Bridge


MAP 7.2    LOCATIONS OF THE WEIRS AND LOCKS AS-BUILT


Half-lock and 'self-acting' floodgates: A – Stanmoor; B – Oath; C – Langport
Lock and fixed weir: D – Midelney
Bridge. The wording of clause 15 of the Act (further powers), repealing the Langport Bridge clause of the original Act, is identical to the first clause agreed between Langport Corporation and the PNC on 6 March 1839. Clause 16, which dealt with the conditions under which extra tolls could be taken, is effectively the same as the second agreed clause, except that provision is made to add the compensation payable 'for the removal of a certain railway or tramroad now existing under the said bridge' to the £3,000 authorised to be raised to reimburse the PNC's expenses.

Two drawings have been found of the proposed new bridge, both signed by Gravatt and dated June 1839. One shows the bridge in elevation and in plan, and the other in longitudinal section with views of various details. The bridge has three semi-elliptical masonry spans; the centre arch spans 34ft., with a rise of 6ft. 9½ins., the outer arches span 28ft., with a rise of 5ft. 7¼ins., giving a total 'waterway width' of 90ft., as required by clause 16 of the Act (further powers) (Figure 7.4). The parapets are iron railings, the total width between the inner faces being 24ft. This width is divided into a carriageway 18ft. wide, a 4ft. wide footway on one side and a 2ft. wide rubbing strip on the other, contrasting with the clause 16 requirement for a 19ft. carriageway and a 5ft. footway. The piers and abutments are founded on timber grillages which are supported on 18ft. long by 1ft. diameter elm piles. The underside of the masonry foundation is shown to be 3ft. 6ins. below the level of the sill of the existing bridge.

Figure 7.4 Gravatt's first design for Langport Bridge.

Source: SRO D/RA 3/3/11/13, signed 'Wm. Gravatt June 1839.'

There are two other documents in the PNC collection which are relevant at this stage. The first is an estimate for building the new bridge which was also signed by

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1 SRO D/RA 3/3/11/13, drawing of proposed new Langport Bridge, elevation and plan on superstructure, signed 'Wm. Gravatt June 1839.'
2 SRO D/RA 3/3/11/14, drawing of proposed new Langport Bridge, longitudinal and other sections, signed 'Wm. Gravatt June 1839.'
Gravatt and dated June 1839.¹ The total of £3,000 comprises estimates for masonry, cast-iron railings, timberwork and cofferdams, plus a contingency sum and a 'guessed' lump sum of £800 to cover four items 'not included in this estimate for want of Data' – diverting the road, erecting temporary bridges, pulling down the existing bridge, and forming the new approaches. The second document is an untitled and anonymous list of 13 comments, queries and suggested alterations which clearly related to details on the drawings, with pencilled annotations in a different hand responding to some of the points.² Neither of the hands has been identified, but the impression gained is that the drawings, or copies, had been passed to a stakeholder's technical adviser for comments, to which Gravatt or an associate had responded. Given that Langport Corporation would be contributing £500 to the scheme, it seems most likely that it was their (anonymous) adviser who prepared the list of comments.

During September 1839 Gravatt prepared three more drawings for the new bridge. Two of the drawings³ were essentially amended versions of the earlier set, some of the amendments reflecting responses to the comments listed above. For example, the parapets were now shown as masonry, with a width of 24ft. between inner faces (Figure 7.5). The third drawing⁴ is a plan of the area around the exiting bridge, with the proposed new bridge and its approaches superimposed on it. Articles of agreement for building the bridge and a specification, dated 14 March 1840, were written on the back of all three drawings.

Figure 7.5  Gravatt's second design for Langport Bridge.

Source: SRO D/RA 3/3/11/16, signed 'Wm. Gravatt Sepr 1839.'

² SRO D/RA 3/3/11/19, PNC papers regarding Langport Bridge, undated [1839].
³ SRO D/RA 3/3/11/15, plan of the existing and proposed Langport Bridges, signed 'Wm. Gravatt Sepr 1839'; SRO D/RA 3/3/11/16, drawing of proposed new Langport Bridge, elevation and plan on superstructure, signed 'Wm. Gravatt Sepr 1839.'
⁴ SRO D/RA 3/3/11/17, drawing of proposed new Langport Bridge, elevation and plan on superstructure, signed 'Wm. Gravatt Sepr 1839.'
Early in October 1839 the PNC arranged an advance of £3,000 with the Langport Bank and began making payments in connection with the scheme.¹ The Langport Bridge scheme was run as a nominally independent concern, with accounting arrangements that were kept separate from the PNC's navigation concern.² Hodgkinson's duties were not extended to cover the bridge works and this arrangement provided him with an opportunity to diversify into contracting. On 8 January 1840 he made an offer to build the bridge for £4,098, and the following day he submitted a breakdown of the quantities on which he had based his offer, highlighting those items where he differed from Gravatt's estimate of June 1839. Following negotiations with Gravatt, Hodgkinson submitted a revised offer of £3,052.³ On 12 February 1840 Edwin Down, the contractor for B&ER contract 3B, submitted a tender for building the bridge in the sum of £2,500.⁴ Gravatt's familiarity with Down's performance on his B&ER contract would be good enough reason for Gravatt to feel that Down would be a suitable contractor; indeed, the specification in the agreement required that 'the Whole of the Masonry shall be equal in every respect to the best Specimens of Masonry of Contract No. 3B on the Bristol & Exeter Railway.'⁵ Down's tender was accepted and he signed the drawings and the agreement on 14 March 1840; the works were to be completed by 1 March 1841. His signature was witnessed by Gravatt and Gravatt's apprentice, William Cobbe, who was

¹ SRO D/RA 3/1/2, PNC Committee Minutes, 3 Oct 1839. Henry Lovibond received £160 as his proportion of the compensation for removing the 'railway,' and Gravatt was paid £100 'in part of his Bill for plans &c. relating to the Bridge': SRO D/RA 3/2/1, PNC Committee Accounts, 3, 25 Oct 1839. It appears that John Lovibond had assigned his interest to Stuckey & Baghot, who were paid £100 on 22 March 1841 for the 'proportion of their loss as to removing Railroad &c. under Langport Bridge': ibid, 22 Mar 1841.

² The accounts for Langport Bridge are contained within a separate section at the end of the PNC Management Committee's ledger: SRO D/RA 3/2/1, PNC Committee Accounts, 'Account of Receipts and Payments relating to the pulling down and rebuilding Langport Bridge,' 3 Oct 1839 – 31 Dec 1842.


⁴ SRO D/RA 3/3/11/1, 'Form of Tender for Langport Bridge,' signed by Edwin Down, 12 Feb 1840.

⁵ In his tender Down referred to 'the Plans and Specification exhibited to me and … all the terms and conditions mentioned therein,' clearly a reference to Gravatt's drawings of September 1839 and the articles of agreement written on the backs.
engaged on 24 April at a salary of £3 3s. per week 'in superintending the erection of the new Bridge under Mr. Gravatt.\textsuperscript{1}

A temporary bridge was installed while the new bridge was being built; in October 1839 Edward Bagehot was paid £60 for damage to his garden and for removing a barn on the right bank, and in the next two years Richard Hurman was paid £31 10s. for rent and damage to his house and garden on the left bank.\textsuperscript{2} It seems most likely that the new Cocklemoor horse bridge was used to carry diverted traffic across the Back River, and a longer-span temporary bridge was built across the Parrett from Cocklemoor to Hurman's garden. The first fortnightly certificate for Down's contract is dated 27 May 1840, covering the demolition of the old bridge and the start of pile driving.\textsuperscript{3} Less than half the piles had been driven by the end of June and the PNC Committee were already 'much dissatisfied' by the slow progress, claiming Down was guilty of gross neglect in not having taken advantage of the unusually favourable weather. They were determined to sue him if the bridge was not completed by the stipulated date, as the PNC's trade would then be seriously injured by competition from the Chard Canal.\textsuperscript{4} Down eventually completed the piling in August 1840, by which time some of the timber grillages had been completed to the stage that masonry building could begin.\textsuperscript{5} The arch centres were fixed in October 1840, and the masonry work in the arches and spandrels was completed at the end of January 1841; the parapets were finished a month later.\textsuperscript{6} On 21 April 1841 Gravatt certified that the contract had been completed to his satisfaction;\textsuperscript{7} payments to Down totalled £2,651, which included a small amount for unspecified 'extra works.' Gravatt had received the 'residue of his charges relating to the Langport Bridge' on

\textsuperscript{1} SRO D/RA 3/3/11/10, PNC Account with William Cobbe, 6 Oct 1840.
\textsuperscript{2} SRO D/RA 3/2/1, PNC Committee Accounts, 6 Oct 1839, 2 Jul, 27 Aug 1840, 5 Feb 1841. Bagehot's house was on the right bank, Hurman's on the left: Charles Hodgkinson to Nicholas Broadmead, 18 Mar 1839, SRO D/RA 3/3/11/2, Plan, 18 Mar 1839.
\textsuperscript{3} SRO D/RA 3/3/11/1, Certificate No.1, 27 May 1840; SRO D/RA 3/2/1, PNC Committee Accounts, 11 Jun 1840.
\textsuperscript{4} SRO D/RA 3/1/2, PNC Committee Minutes, 26 Jun 1840.
\textsuperscript{5} SRO D/RA 3/3/11/1, Certificate No.6, 4 Aug 1840. The total number of piles certified was 144, which equals the total number of piles shown on the contract drawing and seems to indicate that the piling arrangement was built as it had been drawn; inexplicably, in 1882 the Engineer to the Somerset Drainage Commissioners reported that he felt the river bed beneath the bridge could be dredged to a 'good depth' because 'one abutment and two of the piers stand on piling so the dredging can be carried out without danger to the Bridge': Cyrus Combes to the Somerset Drainage Commissioners, 6 May 1882: SRO D/RA 2/8/8, various reports, present writer's emphasis.
\textsuperscript{6} SRO D/RA 3/3/11/1, Certificates Nos.10-16, 14 Oct 1840 – 26 Feb 1841 passim.
\textsuperscript{7} Ibid, Certificate No.17, 17 Apr 1841.
November 1840, and the last payment to Cobbe was on 1 March 1841, 'for the residue of his Salary, expenses &c.' Gravatt then engaged Cobbe as an assistant engineer on the B&ER (see Chapter 3).

The temporary bridge had been partly removed by May 1841 when the Drayton Dyke Reeves summoned Broadmead, 'as Agent to the Canal Company,' to attend the Langport Court of Sewers, for 'not taking out the bearings of a temporary bridge and for not taking out the stones and rubbish in the river near Broad Bow.' The total cost of the new bridge was £3,986, computed up to January 1843 when the accounts were closed and the PNC ceased to levy the special bridge tolls, having by then raised the sum authorised by clause 16 of the Act (further powers) (Table 7.1).

Table 7.1  Expenditure on rebuilding Langport Bridge

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Edwin Down's contract</td>
<td>2651</td>
</tr>
<tr>
<td>2</td>
<td>Temporary bridge</td>
<td>431</td>
</tr>
<tr>
<td>3</td>
<td>Langport Turnpike Trust for stoning the western approach</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Compensation for removing the 'railway'</td>
<td>260</td>
</tr>
<tr>
<td>5</td>
<td>Gravatt's charges</td>
<td>140</td>
</tr>
<tr>
<td>6</td>
<td>Cobbe's salary and expenses</td>
<td>167</td>
</tr>
<tr>
<td>7</td>
<td>Interest charges on the £3,000 advance</td>
<td>237</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,986</td>
</tr>
</tbody>
</table>

The PNC paid no dividends until 1852, ironically just one year before the Yeovil Branch of the B&ER was opened between Durston and Hendford near Yeovil, via Athelney, Oath, Langport, Muchelney and Martock. As a consequence, toll receipts on the PNC rapidly declined and maintenance expenditure was reduced. In 1875 the combination of choked watercourses and poorly maintained river-control structures

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1 SRO D/RA 3/2/1, PNC Committee Accounts, 7 Nov 1840, 1 Mar 1841.
2 Loose notice incorrectly dated '20 June 1841' for 20 May 1841, tipped in SRO D/RA 1/6/2, Sewers Sessions Orders for the Southern Division 1827-1881.
3 SRO D/RA 3/2/1, PNC Committee Accounts, 'Account of Receipts and Payments relating to the pulling down and rebuilding Langport Bridge,' 3 Oct 1839 – 31 Dec 1842 passim; SRO D/RA 3/1/2, PNC Committee Minutes, 26 Aug 1841, 16 Aug 1842, 24 Oct 1843. Hadfield thought the cost of rebuilding the bridge was £4,249, whereas Body & Gallop gave £3,748 17s. 3d.: Hadfield E.C.R, SW England, p.87; Body G. & Gallop R., op.cit., p.18.
exacerbated flooding in West Moor. On 19 February 1875 landowners opened the Langport lock gates to drain off the floods, as they were entitled to do under the provisions of the Act, and forbade the PNC from closing the gates again. From 1 July 1878 the newly formed Somersetshire Drainage Commissioners formally took over responsibility for the watercourses, with power to abandon any or all of the navigation. The river-control structures were removed or converted to drainage and irrigation purposes, effectively putting an end to commercial traffic, although according to Hadfield boats still navigated to Langport and even occasionally to Ilchester into the 20th century.¹