

Bath Road Overbridge BKE 3729
Heritage Statement
Prepared for Network Rail
August 2017



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Executive Summary

This Heritage Statement has been prepared by Alan Baxter Ltd (ABA) to support an application for listed building consent by Network Rail for works to Bath Road Overbridge (BKE 3729). The application follows pre-application response from Reading Borough Council received on 14 September 2016.

Works are required to Bath Road Overbridge in order to fulfil the safety requirements for a bridge over a railway line which is powered by overhead electrification. The works to adapt this bridge will make it safe to operate the electrified railway. The proposed works comprise the addition of a steel perforated plate parapet extension above the central span. This will raise the parapet above the central span, the regulation defined 'Danger Zone' to a minimum height of 1.85m. Mesh panels will be installed at the rear to prevent access. The works include the introduction of anti-climb ledges to the external elevations. Four electrocution warning signs will be attached to the parapets.

The parapets stand at approximately 1.46m from the level of the pavement. Outside of the 'Danger Zone' there will be no need for a parapet extension.

Bath Road Overbridge is a tall triple-span semi-elliptical overbridge of c.1845-47. The bridge is little altered, although both parapets were subsequently raised with brickwork coping topped with decorative anti-climb spikes. Its significance lies mainly in it being a structure originally designed by Brunel and dating from what Historic England has called the 'heroic age' of railway construction. It is a handsome and well-preserved example of such a bridge and forms part of group with Tilehurst Road Overbridge (BKE 3709).

The proposals are subject to the statutory tests in the Planning (Listed Buildings and Conservation Areas) Act 1990 s.16, the policy tests in the National Planning Policy Framework (NPPF) and Reading Borough Council's Adopted Core Strategy (2008, with alteration adopted January 2015) and its Sites and Detailed Policies Document (2012, with alteration adopted January 2015).

The proposed works will have an impact on the heritage significance of Bath Road Overbridge by changing its appearance and thereby its historic character. However, the works have been developed in line with advice from the Local Planning Authority and involve minimal loss of historic fabric. The works will not cause substantial harm to the significance of the structure.

The less than substantial harm caused by the works would be outweighed by the public benefits they bring. The public benefits come from the electrification itself, which will provide a more efficient and more environmentally friendly railway, and from the safer operation of that railway.

1.0 Introduction

1.1 Purpose of the report

This Heritage Statement has been prepared by Alan Baxter Ltd (ABA) to support an application for listed building consent by Network Rail (NR) to Reading Borough Council for works to Bath Road Overbridge (BKE 3729).

The document has been prepared in accordance with the requirements of the National Planning Policy Framework (NPPF) to provide an assessment of the significance of the heritage asset affected by the works. It explains why the degree of harm to significance is necessary to realise the public benefits of electrification of the Great Western Main Line (GWML) route and to demonstrate the ways in which harm has been minimised through good design and in line with pre-application advice.

The application is one of a series which form part of the Greater West Programme (GWP), a programme to complete, in phases, the electrification of the GWML Capital to Capital route between London Paddington and Cardiff Central. The Reading to Newbury line is included as a subsidiary line within the electrification project.

ABA has been involved in many aspects of the electrification process, including assessing the history and significance of the GWML and subsidiary lines and assisting in the preparation of listed building consent applications for all listed structures affected by the electrification programme.

1.2 Consultation process

Pre-application advice to Network Rail's revised proposals was received from Reading Borough Council for both Tilehurst Road Overbridge and Bath Road Overbridge (pre-app ref no: 161555) in September 2016.

The conservation officer in the pre-application response of 14 September 2016 noted of the proposed works: 'I consider the proposed approach to raising the parapet of the Listed Bath Road Bridge height [...] using a metal fence attached' to be the 'correct approach and have no objection in principle.'

Under Section 6 Appraisal the conservation officer also noted the heritage led approach of the current proposals: 'the metal fence parapet [...] above the existing bridge railings is an acceptable proposal that the previous 'wholesale' parapet demolition that was considered to destroy the C19 unusual parapet.'

The conservation officer stated that the detailing of the parapet fence 'will be important' and that the specification for the fence, specification for the mesh at the back, the spacing of fixings to the parapet wall and materials and fixing of the anti-climb strip should be included in the listed building consent application.

The conservation officer expects further details of the proposed fixings to the underside of the bridge. Subject to this detailing 'the revised scheme would in principle preserve the external appearance of the heritage assets and the amenity of the neighbourhood in accordance with Core Strategy policies CS7, and CS33 as well as the National Planning Policy Framework.'

1.3 Structure of the report

Section 2: lays out the relevant national and local policy and guidance

Section 3: describes the history and development of the heritage asset

Section 4: assesses the heritage significance of Bath Road Overbridge and its relationship to other listed buildings

Section 5: describes the proposed works and explains how the design has been arrived at

Section 6: assesses the impact of the proposed works on the significance of the heritage asset and the balance between that level of harm and the public benefits.

Supporting information is given in the appendices.

1.4 Methodology

It is the nature of existing buildings that details of their construction and development may be hidden or may not be apparent from a visual inspection. The conclusions and any advice contained in this report – particularly relating to the dating and nature of the fabric – are based on our research, and on observations and interpretations of what was visible at the time of our site visits. Further research, investigations or opening up works may reveal new information which may require such conclusions and advice to be revised.



Figure 1: Location map



Figure 2: Network Rail ownership highlighted in green

2.0 Planning policy

Bath Road Overbridge is a Grade II listed building (list entry 1409263). Any works that are likely to affect its character as a structure of special historic and architectural interest are therefore subject to statutory controls exercised by the local planning authority.

2.1 National legislation and policy

2.1.1 Planning (Listed Building and Conservation Areas) Act 1990

Section 7 states that listed building consent is required for any works of alteration or extension which would affect its character as a building of special architectural or historic interest.

Section 16(2) requires the local authority to have 'special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses'.

2.1.2 Town and Country Planning (General Permitted Development) Order 1995

The legislation which originally authorised construction of the railway (Great Western Railway Act 1835) granted the Railway Company and its successors in title the right to carry out work necessary for the running and management of the railway, including construction, alteration or demolition of bridges. Such work is now permitted by virtue of Part 11 of the Town and Country Planning (General Permitted Development) Order 1995 and therefore does not require planning permission. Local authority approval under the Order is nevertheless needed before any alterations are made to a structure. The local authority may consider only the design, materials or siting of the works to ensure development would not 'injure the amenities of the neighbourhood' and could not be 'reasonably carried out elsewhere'.

Network Rail's permitted development rights do not remove the need for listed building consent where the structures concerned are listed.

2.1.3 National Planning Policy Framework (NPPF)

The NPPF identifies a set of twelve core planning principles to underpin both plan-making and decision-making, with the overall aim of encouraging sustainable development. The need to secure good quality design, conservation of heritage assets in a manner appropriate to their significance, and supporting the transition to a low carbon future are the three principles most relevant to this application.

Section 7 *Requiring good design*

- **Para 56** states that the Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making better places for people.
- **Para 60** states that planning policies and decisions should not attempt to impose architectural styles or particular tastes and they should not stifle innovation, originality or initiative through unsubstantiated requirements to conform to certain development forms or styles. It is, however, proper to seek to promote or reinforce local distinctiveness.

Section 12 *Conserving and enhancing the historic environment*

- **Para 128** requires applicants to provide a description of the significance of the heritage asset affected by the proposed development and its setting that is proportionate to its importance
- **Para 129** requires local planning authorities to take account of that significance when assessing an application
- **Para 131** emphasises the desirability of sustaining and enhancing the significance of heritage assets and of new developments making a positive contribution to local character and distinctiveness.
- **Para 132** states that great weight should be given to the conservation of heritage assets and explains that any harm or loss to a heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building or registered park and garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including grade I and II* listed buildings and World Heritage Sites, should be wholly exceptional.
- **Para 134** sets out that where a development would lead to less than substantial harm, local planning authorities should weigh this harm against the public benefits of the proposal.

The electrification of the GWML will play a part in helping to promote sustainable transport; as such policies from **Section 4, Promoting sustainable transport**, are relevant.

2.2 National planning guidance

Planning Practice Guidance (Department of Communities and Local Government, 2014)

The aim of the Planning Practice Guidance (PPG) is to support implementation of the policies set out in the NPPF. The section *Conserving and enhancing the historic environment* was last updated in April 2014.

The PPG reiterates that the appropriate conservation of heritage assets forms one of the core principles underpinning the planning system. In reference to development proposals, it is the degree of harm to the asset's significance rather than simply the scale of the development that should be assessed. It explains that significance derives not only from a heritage asset's physical presence but also from its setting, which is defined as 'the surroundings in which an asset is experienced [which] may therefore be more extensive than its curtilage. All heritage assets have a setting irrespective of the form in which they survive and whether they are designated or not.'

The PPG highlights that the public benefits that may follow a development could be anything that delivers economic, social or environmental progress as described in the National Planning Policy Framework (Para 7). It adds that benefits 'do not always have to be visible or accessible to the public in order to be genuine public benefits.'

Historic Environment Good Practice Advice in Planning Note 2 – Managing Significance in Decision-taking in the Historic Environment (Historic England, 2015)

This advice note supports the implementation of policy in the NPPF. It emphasises that the information required in support of applications for listed building consent should be no more than is necessary to reach an informed decision and proportionate to the significance of the heritage assets affected and the impact on that significance. It explains the importance of understanding the nature, extent and level of significance as part of the application process for listed building consent.

Historic Environment Good Practice Advice in Planning Note 3 – The Setting of Heritage Assets (Historic England, 2015)

This advice note supports the implementation of policy in the NPPF. It is largely derived from the earlier guidance on setting issued by English Heritage in 2011. It contains advice on the extent of setting, its relationship to views and how it contributes to significance. It also sets out a staged approach to decision-taking.

2.3 Local policy and guidance

2.3.1 Reading Borough Council Core Strategy (2008, with alteration adopted January 2015)

The Core Strategy was originally adopted on 29 January 2008. Alteration to policy CS16 (Affordable Housing) was adopted on 27 January 2015.

The Core Strategy sets out Reading Borough Council's adopted planning strategy and how planning and development will achieve the Reading 2020 Vision for the town and 'a framework for how Reading can grow in a sustainable way in the future.'

The relevant policies are CS7 Design and the Public Realm and CS33 Protection and Enhancement of the Historic Environment.

Policy CS7 Design and the Public Realm notes that all development must be of a high design quality 'that maintains and enhances the character and appearance of the area of Reading in which it is located.' The components of development including:

- *Layout, urban structure and urban grain;*
- *Landscape;*
- *Density and mix;*
- *Scale: height and massing; and*
- *Architectural detail and materials.*

[...] will also be assessed to ensure that they: -

Respond positively to their local context and create or reinforce local character and distinctiveness, including protecting and enhancing the historic environment of the Borough and providing value to the public realm;

[...]

- *Address the needs of all in society and are accessible, usable and easy to understand by them; and*
- *Are visually attractive as a result of good high quality built forms and spaces [...] and appropriate materials and landscaping.*

Policy CS33 states that historic features and areas of historic importance and other elements of the historic environment including settings, 'will be protected and where appropriate enhanced.' Paragraph 11.9 notes:

The character and integrity of listed buildings will be preserved, and the Council will seek to enhance the settings of Listed Buildings wherever appropriate, by ensuring that new development in their vicinity is sympathetic.

2.3.2 Reading Borough Council Sites and Detailed Policies Document (2012, with alteration adopted January 2015)

The Sites and Detailed Policies Document was originally adopted on 23 October 2012. Alteration to policy DM6 (Affordable Housing) was adopted on 27 January 2015.

Policy SD1: Presumption in Favour of Sustainable Development notes that 'a positive approach to considering development proposals will be taken that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.'

Section 9 deals with the Built and Natural Environment. Paragraph 9.1.7 notes that the 'focus is on conservation and where appropriate enhancement, recognising that some new development may make a positive contribution to the character and local distinctiveness of a part of the historic environment.' Paragraph 9.1.10 further notes:

Heritage assets are a non-renewable resource. Harm to or loss of an asset's significance including the complete loss, demolition or destruction, causes a loss of value to society and a loss of public benefit. There is a presumption in favour of conservation of all heritage assets. Any harm to or loss of an asset needs clear and convincing justification as set out in national planning policy.

2.3.3 Reading's Culture and Heritage Strategy 2015-2030

The strategy was produced by Reading's Cultural Partnership. The proposed period covered by the strategy is 2015-2030 with a review planned in 2020. The strategy states that 'Culture and Heritage in Reading are integral to the town's success as a place that welcomes and excites people to live, work and visit.' Heritage is a key part of Reading's Cultural Vision:

Reading's heritage is an important and unique asset, albeit sometimes out best kept secret, playing a vital part in the local people's pride and sense of identity. Reading's vision for the town's heritage is applied within the framework of national and local policies for culture, heritage and planning. The local planning authority has a statutory responsibility to protect Reading's assets.

3.0 Understanding Bath Road Overbridge

3.1 Description

Bath Road Overbridge was designed c.1845-47. It carries the London to Bath (A4) road over the Berkshire and Hampshire branch line, to the west of Reading city centre.

It is a tall triple-arch skew road overbridge with semi-elliptical spans. It was constructed in red brick, laid in English bond, and the parapets have limestone coping stones. The central arch is slightly taller and wider than the side arches. The carriageway measures 24ft (7.3m) between the parapets. The outer face of the parapets is stepped and a string course runs across each face. There are tall tapering piers and as built were pierced by three tapering transverse arches (now infilled so they are blind arches). The wing walls are vertical and straight.

Its dimensions appear to be similar to those of the neighbouring and contemporary Tilehurst Road Overbridge (BKE 3709). However, Bath Road Overbridge was built to carry the London-Bristol turnpike (now A4) and therefore has a wider roadway than normal.

The bridge is generally not visible in the wider landscape because it is in a cutting and because of topography and existing structures. However, it is interspersible with Tilehurst Road Overbridge (BKE 3709).

3.2 The Great Western Main Line

The original Great Western Railway was part of the 'pioneering phase' of railway development. It was built at the initiative of Bristol businessmen and industrialists who recognised that a railway link to London and the rest of the country would help invigorate their city's economy. The committee set up to promote the link appointed Isambard Kingdom Brunel as engineer for the line in 1833; he carried out the first surveys of the route in about nine weeks immediately after he had been appointed.

The main line was built in stages from the two ends: London to Wootton Bassett was complete by December 1840, and Bristol to Bath by August the same year. The middle section, including Box and Middlehill Tunnels, was completed in June 1841, enabling trains to run from London to Bristol for the first time. The main line is known by the Engineer's Line Reference MLN1.

The Reading to Newbury Line, known by the Engineer's Line References BKE and BHL, was one of the subsidiary lines built shortly after the completion of the Great Western Railway between London and Bristol. The line was completed between 1845 and 1847 by the Berks and Hants Railway Line. The company was incorporated under the Berks & Hants Railway Act of 30 June 1845 and amalgamated with the Great Western Railway in May 1846.

The line formed part of the route south of the Marlborough Downs that Brunel had dismissed as a result of his first surveys. In its planning stages it was the subject of a dispute between the GWR and the London & South Western Railway. The resolution of this dispute allowed the Berks & Hants to complete the line to Hungerford via Newbury. The line opened in December 1847.

3.3 The structure today

Bath Road Overbridge carries the London to Bath (A4) road over the railway.

Overall, the bridge is relatively little altered, although it does have some brick patching and alterations to the parapets completed in red engineering brick. The piers were originally pierced by three tapering transverse arches. These have been blocked up with red brick so that they are now blind arches.

The parapets were subsequently raised by two courses of red engineering brick above the original coping (which was left *in situ*). The parapets were also rebuilt at the ends in red engineering brick, possibly in connection with the construction of the entrances to the modern footbridges which flank the bridge on both sides. In particular, the east end of the south (high mileage) parapet was truncated and rebuilt in engineering brick so that it curves back to form part of the entrance for the southern footbridge.

Due to the deep cutting it is in, and the modern steel footbridges that flank either side, only partial views of the bridge are possible from neighbouring overbridges. The footbridges have high sides so it is difficult for pedestrian to get clear views of Bath Road Overbridge. There is no pedestrian access on Bath Road Overbridge itself.

In railway terminology, the high and low mileage is taken from the distance from London Paddington.



Figure 3: 1830 OS first series



Figure 4: 1872 Survey



Figure 5: High mileage face seen from modern footbridge



Figure 6: Detail of low mileage side with decorative spikes



Figure 7: Detail of high mileage face with decorative spikes



Figure 8: Detail of high mileage face



Figure 9: Detail of low mileage parapet showing the modern footbridge in the background



Figure 10: Bath Road Overbridge seen from Tilehurst Road

4.0 Assessment of significance

4.1 Assessing significance

'Significance' is the means by which the cultural importance of a place and its component parts can be identified and compared, both absolutely and relatively. By identifying and analysing the significance of a site it is possible to provide a clear set of guidelines against which the impact of proposals for alteration or addition can be judged.

The primacy that should be given to the analysis of significance in plan-making and planning decisions is at the heart of national planning policy. Para 129 of the NPPF states: 'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal [...] taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.'

The **Great Western Main Line – Overhead Line Electrification – Environmental Statement and Impact Assessments** described the significance of every structure on the route. This was necessarily at a high level; a listed building consent application requires a more detailed and sophisticated analysis. This chapter provides such an analysis.

In accordance with English Heritage's **Conservation Principles, Policies and Guidance** (2008), which is a recognised methodology for meeting the requirements of the NPPF, the significance of Bath Road Overbridge is articulated as the sum of its identified heritage values. In addition to the familiar architectural-historical values used in most assessments of significance, this takes account of a wider range of values:

Evidential values: the potential of Bath Road Overbridge to provide primary evidence about the past

Historical values: the way in which Bath Road Overbridge provides a means of connecting to and interpreting aspects of past people, events and movements

Aesthetic values: the visual qualities of Bath Road Overbridge, deriving from conscious design and changes over time

Communal values: the symbolic or social importance attached to Bath Road Overbridge by individuals or communities and its contribution to local identity

The summary of significance at the end of this section is an amalgam of these different values and interests.

4.2 Statutory designations

The following designations are relevant to the consideration of the significance of Bath Road Overbridge:

- Bath Road Overbridge – listed at Grade II in 2012. This recognises the special historic and architectural interest of the bridge.

Bath Road Overbridge is in a sequence of other structures designed by Brunel on the GWML: Tilehurst Road Overbridge is approx. 390m down mileage from Bath Road Overbridge. Together with other structures on the line they hold group value in relation to the GWML as a whole; however, they are not statutorily listed as a group. These two bridges are intervisible although views are obstructed by the modern steel footbridge that flanks Bath Road Overbridge. They therefore have some impact upon each other's setting.

Together with other surviving Brunel structures on the route they hold substantial group value.

An early nineteenth-century mile post, listed at grade II, is located approximately 195m from Bath Road Overbridge. This structure does not have a direct historic relationship with the overbridge and is not easily visible from the overbridge. Therefore works to Bath Road Overbridge will have only a minor impact to the setting of this heritage asset.

No other heritage assets are within the setting of the bridge.

4.3 The significance of the GWML and its overbridge

To understand the significance of Bath Road Overbridge it is necessary to consider it not just as an isolated structure, but also as a part of Brunel's Great Western Railway from Paddington to Bristol Temple Meads. Although individual structures vary in quality and interest, they combine to give the line as a whole a distinctive character and an historical and engineering importance that is greater than the sum of the parts. A fuller analysis of the significance of the GWML, and of Brunel's overbridges, is given in **History and Significance of the Great Western Main Line** (ABA, April 2012), but the key points are set out below.

4.3.1 The overall significance of the GWML

Evidential values: the survival of large parts of the fabric of Brunel's railway provides evidence of the way railways were built and operated during the nineteenth century.

Historical values: the GWML mainline belongs to what Historic England has described as the 'pioneering phase' of railway development. The line from Reading to Newbury and Hungerford belongs to what Historic England has described as the 'heroic age' of railway development. It has a powerful association with one of the great nineteenth-century engineers, Isambard Kingdom Brunel.

Aesthetic values: many of its structures display a high quality of design, in a variety of architectural styles, and parts of the line were moulded to the landscape with picturesque effect in mind.

Communal values: the Great Western Railway, which built the line and operated it for over a hundred years had a strong culture and identity, and has a special value for railway enthusiasts and for the communities it served.

4.3.2 The significance of Brunel's overbridges as a group

Evidential and historical values: as a group, the overbridges on the GWML, including the subsidiary line from Reading to Newbury and Hungerford, are integral parts of one of the most important railways dating from the 'pioneering phase' and 'heroic age' and all were personally designed by Brunel.

The simpler overbridges are generally a development on a large scale of the simple masonry arch bridge; a type that was already common on canals. Except where a skew was necessary – to carry a road over the railway on a diagonal – they show no innovation in design or construction.

Later alterations to many of the overbridges add to their historical interest because they illustrate the widening of the Great Western in the late-nineteenth century to accommodate growing volumes of traffic. This interest is strengthened by the fact that it can be seen on many structures along the line, not just in isolated cases. It is also of historic interest that these changes were often carried out with great sensitivity, out of respect for Brunel's achievement.

Aesthetic values: the overbridges vary in appearance, some being plain engineering structures while others are more obviously architectural. As a group they therefore demonstrate the way in which Brunel altered his design approach according to the location of the bridge and its functional requirements. The aesthetic values of the overbridges also derive from the choice of materials, generally local stone or brick that was readily available. It is notable that in many cases, aesthetic appreciation of the bridges as a group is today largely limited to train drivers or track workers - passengers no more than glimpse them.

Communal values: since the ability to appreciate most overbridges is limited, as described above, their social and symbolic importance as a group is largely restricted to railway enthusiasts.

4.4 Significance of Southbury Lane Overbridge

Evidential values: Bath Road Overbridge is a good example of a tall triple-arch skew overbridge dating from c. 1845-47. It subsequently had its parapets raised and the ends rebuilt in red engineering brick. In particular, the east end of the south (high mileage) parapet has been truncated and rebuilt. It has undergone some areas of re-patching. However, the form of the bridge is well preserved and retains its original form as designed by Brunel.

Historical values: The historical importance of Bath Road Overbridge lies in its construction as part of the 'heroic age' Berks & Hants Railway and its association with I.K. Brunel. Its proportions are largely unaltered and the bridge is intervisible with Tilehurst Road Overbridge. The Berks & Hants Railway was one of the early subsidiary lines built after the completion of the GWR mainline.

Aesthetic values: Bath Road Overbridge retains the original Brunel three-span design with its taller central arch. The bridge has not been extended. Its original parapet and brick stone coping were raised by the addition of two brick courses and steeple coping. The coping was topped by decorative anti-climb spikes. The east end of the south (high mileage) parapet was truncated and rebuilt. It curves back to form part of the entrance for the southern footbridge.

Communal values: The setting of the bridge is urban but is not visible in the wider landscape. A modern pedestrian footbridge is located adjacent to both its high and low mileage faces. This has impacted on the view of the bridge from the neighbouring Tilehurst Road Overbridge.

4.5 Summary of significance

Taking into account all the values (evidential, historical, aesthetic, and communal), the significance of Bath Road Overbridge lies in it being:

1. a surviving structure from the Berks & Hants Railway built c.1845-47
2. retains its original Brunel design
3. intervisible with the neighbouring Tilehurst Road Overbridge.

5.0 Proposed works

5.1 Design objective

The design of electrification and associated works along the GWML and its branch lines aims to minimise the danger of public proximity to a fatal amount of electricity, while minimising the physical impact on historic fabric and the visual impact on listed structures and their settings. In consultation with local planning authorities and Historic England (formerly English Heritage) it has been agreed that, along with satisfying safety requirements, the new works affecting the historic structures along the route shall, as far as practicable, prioritise maximum fabric retention and be of sympathetic design.

The design of a form of parapet extension to achieve safety requirements on the bridges seeks to maintain the integrity of the historic structures and add something which is of practical design in its own right. Furthermore, the use of a common approach on Tilehurst Road Overbridge will create a consistency for this group of Brunel-era bridges.

In the design of the parapet extensions, a balance has been achieved between the maximum retention of the bridge's historic fabric and the preservation of their overall aesthetic qualities. It was decided that the significance of the bridge as a heritage asset was best conserved by adding a parapet extension across the central span, retaining the decorative anti-climb spikes and leaving the existing fabric *in situ* so that distinct 'historic' and new layers would be legible in the structure.

5.2 Design requirements

The electrification of the GWML introduces risks to the public and to those working on the railway, putting them in proximity to a fatal amount of electricity. The risks have to be made as low as reasonably practicable in order to comply with UK and European legislation and regulations. The relevant standards are described in detail in ABA's *A Guide to Overhead Electrification* (March 2017 Rev 12.1).

In summary, the aim of the safety measures is to prevent anyone from coming sufficiently close to the live wires to be electrocuted. This affects the following aspects of the existing parapets:

- Height*
- Coping profile
- Solidity

Two general options have been identified for modifying bridges to comply with Network Rail's standards:

- A) 1.85m high solid parapet raised in masonry or steel with steeple coping
- B) 1.25m high solid parapet with a 0.6m high perforate top (making a total height of 1.85m) and treatment to deter access to outside face

Both of these options satisfy the requirement to achieve a 1.8m height. The addition of a further 0.05m has been factored in to allow for future road or pavement resurfacing which, by building up the standing surface over time, would reduce the effective height of the parapet.

In some circumstances, the height over the 'Danger Zone' can be reduced to 1.55m, where the standing surface of the bridge is more than 2.25m above the proposed live parts. As Bath Road Overbridge is considered to constitute a suicide risk, however, the reduction is not possible in this case.

For parapet copings that are wide enough to stand on, they should either be profiled to deter standing (e.g. a 45° slope on each side, or 35° on the inner face and 60° on the outer) or be made somehow inaccessible. Similarly, ledges on the outside faces of overbridges should be treated to deter anyone walking along them from either end and thereby reaching the centre of the bridge.

**The height standards apply only to 3m either side of fixed live components - known as the 'Danger Zone' - not the full length of the bridge.*

5.3 Description of proposed works to Bath Road Overbridge

The proposed works to Bath Road Overbridge constitute alterations to the historic structure, to enable it to retain its original use in relation to the newly electrified railway. The following aspects of Bath Road Overbridge are not compliant with the safety standards described above and therefore need remedial work.

- The parapets stand at approximately 1.46m from the level of the pavement in the central part of the bridge
- The string course and the plinth above it are deep enough to form a standing surface on the outside of the bridge.

The proposed works are shown in full on the application drawings, but are summarised here.

Network Rail's proposal is to leave the existing historic fabric of the bridge intact and satisfy the anti-climb and safety requirements through the addition of a steel perforated plate parapet extension above the central span. This will raise the parapet above the central span, the regulation defined 'Danger Zone' to a minimum height of 1.85m. The addition of a steel parapet extension above the central span has the beneficial effect of avoiding parapet demolition and leaving the unusual decorative anti-climb spikes in place. Outside of the 'Danger Zone' there will be no need for a parapet extension.

The ends of the 1.85m 'Danger Zone' parapet extensions will have mesh panels installed at the rear to prevent access. The mesh will measure 25mm x 25mm and will be welded to the steel frame.

The ends of the 'Danger Zone' also require the introduction of anti-climb ledge treatments to the external elevations. The long section of chamfered brick will be designed to match the existing masonry. The ledge detail will be of natural stone or fired brick – this detail is to be confirmed with the Local Planning Authority.

The paint colour of the steelwork is to be confirmed with the Local Planning Authority.

The following repairs are to be conducted prior to completion of the works.

- Rake out and repoint all areas of mortar loss deeper than 10mm
- Replace all bricks that are spalled to a depth of 30mm or more
- Repointing
- Remove and treat all vegetation on all spans including parapets, spandrel walls and string course

Please refer to the Repair Specification for full details.

Warning signage, required as a safety precaution on the bridge, will be placed to either side of the regulated defined 'Danger Zone'. There will be a total of four signs either side of the centre of the bridge, which will be fixed to the existing parapet.

6.0 Heritage impact assessment

6.1 Overview

The proposed parapet extension above the central span and the anti-climb ledges will fulfil the safety requirements for a bridge over a railway line with overhead electrification. The way in which it is proposed to achieve this has been designed to minimise the harm to the significance of the listed structure by providing a physically reversible option which leaves all of the historic fabric above the central span *in situ*. There will be no need for a parapet extension outside the 'Danger Zone' as the parapets stand at approximately 1.46m from the level of the pavement.

Nevertheless the proposals will cause some harm to the significance of the structure and cumulatively to the significance of the neighbouring Tilehurst Road Overbridge which forms a group with Bath Road Overbridge. This section of the Heritage Statement will demonstrate that this harm has been minimised, is less than substantial and is outweighed by the public benefits that the proposals deliver.

6.2 Impact on historic fabric

The proposals involve the addition of a parapet extension raising the parapet height above the central span to a minimum of 1.85m. These proposals result in the very minor loss of historic fabric wherever the steel panels and anti-climb ledges are fixed. The proposals will retain the decorative anti-climb spikes. However, the vast majority of the historic fabric will be left *in situ*.

6.3 Visual impact

The addition of a parapet extension above the central span means that exterior elevations of the original Brunel structure will remain visible, albeit with an added element above. The extent of the parapet extension has been minimised to just the 'Danger Zone' above the electrified wires which will minimise visual impact.

The impact in views of the bridge seen obliquely as one crosses the bridge will be negligible. Outside the central span 'Danger Zone' there will be no need for a parapet extension. Above the central span 'Danger Zone' the parapet extension is of perforated plate which will allow views out from the bridge.

The warning signage, required by safety regulation to be on the overbridge, has been designed to be as small as possible to minimise its visual impact.

6.4 Impact on the neighbouring listed buildings

Bath Road Overbridge forms part of a group with neighbouring Tilehurst Road Overbridge. As these two bridges are intervisible, they impact on each other's setting, although the view of Tilehurst Road Overbridge is obscured by the pedestrian footbridge. As outlined in the pre-application advice from Reading Borough Council, the works to Tilehurst Road Bridge will be carried out in matching materials and use a common design approach to Bath Road Overbridge where possible.

Approximately 195m to the east of Bath Road Overbridge is one listed structure: a nineteenth-century mile post. The bridge is not easily visible in long views from this location and the works to Bath Road Bridge will have a negligible effect on the setting of this heritage asset.

6.5 Cumulative impact

The proposals for Bath Road Overbridge are one component of the works required to electrify the GWML. Alterations are needed to all overbridges which have low parapets, and, where the structure is listed, a separate listed building consent application is being made for each one.

Bath Road Overbridge and Tilehurst Road Overbridge are well-preserved examples of Brunel's design on the Reading to Newbury line. A common design approach is being taken with both bridges: to preserve the majority of the historic fabric *in situ* and add a parapet extension where necessary to achieve the necessary safety requirements on the bridges. The cumulative impact on significance will be minimised.

6.6 Setting

The proposed works to Bath Road Overbridge will have little impact on setting. The bridge is located in a deep cutting and its topography, as well as the location of other structures, means that it is not visible in the wider landscape.

6.7 Mitigation

A historic building record of Bath Road Overbridge has been undertaken prior to the commencement of works to the bridge. This was to Historic England's recording level 2. The record will be deposited in the Berkshire Historic Environment Record.

6.8 Public benefits

This proposal is necessary to enable the electrification of the line from Reading to Newbury. The electrification of the GWML is a project of strategic national importance and effect. The GWP will make a significant contribution to securing a low carbon future, a key objective of the NPPF. The improved rail infrastructure that GWP will supply will deliver trains that are more efficient, cleaner, quieter, lighter and faster to accelerate. Consequently, the proposal delivers public benefits that are manifestly substantial.

6.9 Conclusion

The proposal will cause harm to the significance of Bath Road Overbridge by altering its overall form and appearance. It will have little effect on the views between this bridge and the nearby Tilehurst Road Overbridge (BKE 3709). The structure will still be recognisable as a Brunel designed overbridge dating from the construction of the Berks & Hants Railway. The majority of the bridge's historic fabric will remain untouched: both its Brunel-designed fabric and the later parapet fabric designed with decorative spikes. There will be no need for a parapet extension outside the 'Danger Zone' as the parapets stand at approximately 1.46m from the level of the pavement. The proposal respects the integrity of Brunel's design and takes account of its group value. Overall the proposed works amount to less than substantial harm to the significance of the heritage asset.

In such circumstances, the NPPF requires that harm be weighed against the public benefits of the proposal (para 134). In this case the safe operation of an improved and less environmentally damaging train service outweighs the harm to significance, which has been minimised by designing on the basis of an understanding of the heritage values of the structure.

Therefore the proposal is in accordance with national planning policy and the core planning principles of the NPPF, in particular those of sustainable development, high quality design, the transition to a low carbon future and sustaining the significance of heritage assets. It meets the requirements of local policies by sustaining the significance of Reading Borough Council's heritage assets.



Historic England

Bath Road Bridge (BKE3729)

List Entry Summary

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Name: Bath Road Bridge (BKE3729)

List entry Number: 1409263

Location

Bath Road Bridge, Bath Road, A4, Reading

The building may lie within the boundary of more than one authority.

County:

District: Reading

District Type: Unitary Authority

Parish: Non Civil Parish

National Park: Not applicable to this List entry.

Grade: II

Date first listed: 17-Jul-2012

Date of most recent amendment: Not applicable to this List entry.

Asset Groupings

This list entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List entry Description

Summary of Building

Tall, triple-arch skew road overbridge with semi-elliptical spans, set in a cutting, erected c.1845-47.

Reasons for Designation

Bath Road Bridge is designated at Grade II for the following principal reasons:

* Selectivity: a triple-arch skew overbridge with semi-elliptical arches; in this case it is unusually high, built to span a deep cutting; * Design, engineering & material interest: built to the high standard employed for brick-built bridges of this date; intact outer faces, semi-elliptical arches and arch rings, with slightly heightened, patched and repaired parapets; similar to Tilehurst Bridge which was constructed with internal voids and spine walls that reduce the weight of the superstructure and carry the carriageway; * Historic interest: built 1845-7, shortly after the main line by the Hampshire and Berkshire Railway for the Reading-Newbury line, probably by an assistant engineer to Brunel's earlier specification; the drawings survive; * Group Value: forms an impressive pair with the similar and contemporary Tilehurst Road Bridge.

History

The railway line from Reading to Newbury, opened in 1847, was the outcome of a dispute between the Great Western Railway (GWR) and the London and South Western Railway about the provision of a railway to Newbury. The GWR originally proposed to reach the town by a branch from the main line at Pangbourne, but eventually settled on the present route. This was built by a

subsidiary company to the GWR, the Berkshire and Hampshire Railway. The engineer was Isambard Kingdom Brunel (1806-59) who, as with the main line, designed the line on the broad gauge. Having previously dismissed the idea of a route to Bristol via Newbury and the Vale of Pewsey he did not regard this as a major project: it only became part of the direct GWR route to Exeter in 1906. It is not known who was the Resident Engineer for the project.

Bath Road Bridge was erected during the construction of the line c. 1845-7 to carry the London-Bristol turnpike (now the A4) south-west of Reading.

In one or more phases in the late-C19 and mid to late-C20 some patching and refacing, and other minor alterations, have been carried out in engineering brick. In the last few decades, steel footbridges have been built alongside on both sides.

Details

MATERIALS: original handmade red brick. Red engineering brick used for patching and for alterations to the parapets. English bond. Limestone copings.

DESCRIPTION: the central arch is slightly taller than the side arches. Dimensions appear to be similar to those of the neighbouring and contemporary Tilehurst Road Bridge (BKE3709), which has a central span of 38ft 4in and c. 30ft side arches. The carriageway is 24ft [7.3m] between parapets. The piers are tapered and were originally pierced by three tapering transverse arches. These arches have been blocked up with brick so they now read as blind arches. At least one tie plate is visible in the north (low mileage) face. Abutments/wing walls are vertical and straight. A stepped string course runs across each face and above the outer face of the parapet is stepped. They have been raised in the C20 by two courses of red engineering brick above the original coping left in-situ and have steeply pitched purple brick copings with small anti-climb spikes. The parapets are also rebuilt in red engineering brick at the ends, possibly in connection with the construction of the entrances to the modern steel footbridges which flank the bridge on both sides (these are not attached.) In particular, the east end of the south (high mileage) parapet was truncated and rebuilt in engineering brick so that it curves back on a concrete raft to form part of the entrance to the southern

footbridge. The modern steel footbridges are not of special interest.

The bridge is generally not visible in the wider landscape because it was designed to span a cutting. However, it is mutually visible with Tilehurst Road Bridge (BKE3709).

Selected Sources

Books and journals

Brindle, S, Cruickshank, D, Brunel: The Man Who Built the World, (2005)

Cross-Rudkin, P, Chrimes, M, EDS, Biographical Dictionary of Civil Engineers Volume 2: 1830–1890 , (2008)

MacDermot, E T, A History of the Great Western Railway, (1927, revised ed. 1964)

Pugsley, A, The Works of Isambard Kingdom Brunel, (1976)

Vaughan, A, A Pictorial Record of Great Western Architecture , (1977)

Other

Alan Baxter & Associates, The History and Significance of the Great Western Main Line , 2012,

Kinchin-Smith, R, Crossrail Technical Assessment of Historic Railway Bridges , 2005,

National Grid Reference: SU7004272662

Map



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The above map is for quick reference purposes only and may not be to scale.
 For a copy of the full scale map, please see the attached PDF - [1409263 .pdf](http://mapservices.HistoricEngland.org.uk/printwebservicehle/StatutoryPrint.svc/472847/HLE_A4L_Grade/HLE_A3L_Grade.pdf)
http://mapservices.HistoricEngland.org.uk/printwebservicehle/StatutoryPrint.svc/472847/HLE_A4L_Grade/HLE_A3L_Grade.pdf

The PDF will be generated from our live systems and may take a few minutes to download depending on how busy our servers are. We apologise for this delay.

This copy shows the entry on 04-Aug-2017 at 10:41:23.

End of official listing

Berkshire Archaeology Event/Activity Full Report

23/09/2014

Number of records: 2

Archaeological events within a 200m radius of Bath Road Bridge BKE3729

Event ID	Event Name	Event Type
ERD35	Former Carmelite Monastery, 1 Southcote Road, Reading, Berkshire	Negative Event - Intervention

External Reference:

Dates: 06/09/1999 - 10/09/1999, between (1999)

Project Details:

Event/Activity Types

Archaeological Intervention / Evaluation

Event/Activity References

SITE - Sitecode 47091

Organisation: Wessex Archaeology

Associated Individuals

Associated Organisations

Wessex Archaeology Archaeological Unit

Location

Grid Reference

SU 69860 72671 (point) SU67SE Area

Administrative Areas

Non Parish Area Reading, Reading, Berkshire

Unitary Authority Reading, Berkshire

Address

1 Southcote Road,, Reading, Berkshire

Description and Sources

Description

An archaeological evaluation was carried out in the grounds of the former Carmelite monastery at 1 Southcote Road following a planning application to develop the site.

The site is located immediately to the north of the Bath Road. The site is approximately 1.0ha in size and is level at 78mOD, although the existing monastery building lies on higher ground at c. 80mOD. The underlying geology is Valley Gravel (Geological Survey of Great Britain, Sheet 268).

A recent site investigation revealed the presence of orange brown clay overlying gravel from a depth of c. 0.5m. The evaluation consisted of the machine excavation of seven trial trenches measuring 30m x 1.6m.

The evaluation demonstrated that large parts of the site had been subject to gravel extraction and those areas that had not, contained no archaeological remains. The gravel extraction certainly dated from the 19th/20th century, and possibly from as early as the 17th century.

Finds recovered during the evaluation were of post-medieval date, probably 19th/20th century. Therefore the site is regarded as being of no archaeological interest <1>.

Sources

(1) Unpublished document: Wessex Archaeology. 1999. Former Carmelite Monastery, 1 Southcote Road, Reading, Berkshire.

Associated Monuments - None recorded

EventFullRpt

Report generated by HBSMR from exeGesIS SDM Ltd

Page 1

Event ID: ERM1571 **Name:** Bath Road Reservoirs, Reading, Berkshire

Event ID	Event Name	Event Type
ERM1571	Bath Road Reservoirs, Reading, Berkshire	Event - Survey

External Reference: BRR13/109

Dates: 09/08/2013 - 01/11/2013, between (2013)

Project Details:

Event/Activity Types

Field Survey / Building Recording

Event/Activity References

OASIS - OASIS ID thamesva1-176470

SITE - Sitecode BRR13/109

Organisation: Thames Valley Archaeological Services

Associated Individuals

Associated Organisations

Thames Valley Archaeological Services Archaeological Unit

Location

Grid Reference

Centroid SU 70230 72754 (MBR: 69m by 38m) SU77SW Dispersed

Administrative Areas

Non Parish Area Reading, Reading, Berkshire

Unitary Authority Reading, Berkshire

Address - None recorded

Description and Sources

Description

Building recording was undertaken at Bath Road Reservoirs following planning consent to redevelop the former reservoirs for residential use. The development is to include conversion of the water tower to residential use, retention of wild-life rich habitat and demolition of the reservoirs and replacement with housing.

A condition of the consent was a programme of building recording prior to conversion and demolition in order to mitigate the effects of the development on the historic structures.

The site is located on the north side of Bath Road. The site lies at approximately 60m above Ordnance datum and the underlying geology is the Lynch Hill gravel terrace.

The water tower on the site is Grade II listed. The pump house and the boundary wall are also recorded on the Berkshire Archaeology HER.

A range of Ordnance Survey and other historical maps of the area were consulted at Berkshire Record Office and online in order to show the development of the site. In 1848 Parliament introduced the Public Health Act as the first step in improving sanitary conditions and therefore public health. A local Water Act was passed in 1851 for Reading and was amended in 1868 to further provide waterworks for Reading. The original plans for the Bath Road reservoir site are dated 30th November 1850 and show the two reservoirs, four circular filtration tanks surrounded by a bund and the pump house in the south-west corner. The field is numbered '24' and is recorded as being an arable field belonging to William Stephens, who appears to be a local landowner.

In 1853 the Board of Health commissioned a map of the waterworks within Reading, which included the reservoirs. This map appears to show the site as it was built, with the two reservoirs at the rear and four filtration tanks at the southern end of the site. The pump house was located to the south-west and the superintendents' house was beside it to the west (now separate from the current site). The pump house has been extended to the rear and cut into the bund around the reservoir. It is not clear whether it was built larger than the original plan or rapidly extended after being built. The boundary with Bath Road is marked by a wall which curves to an entrance at the west end of the site. The water tower is not present at this point.

EventFullRpt

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Page 2

Event ID: ERM1571 Name: Bath Road Reservoirs, Reading, Berkshire

The next map to show any detail of the site is the 1879 Reading Town plan, which however, extends only as far as the water tower. The rest of the site is included on the 1881 map which shows the water tower (labelled tank) and pumping house, behind which were the two reservoirs and six circular tanks. The pump house has been extended again, to the east. At this period the house to the west of the pumping station was included within the boundary of the waterworks and was housing for the superintendent. No change is shown by 1899– 1900, but the round tanks are now labelled as filter beds. By 1911–1912 the eastern block of the pump house has been extended at the front and rear and by 1931–1932 further buildings have been added to the rear of the pump house. The westernmost of the filtration beds has also been filled in. By 1958–1960 the eastern filtration bed has also been filled in. By 1968 the northern reservoir is labelled as disused and no further changes are apparent.

The building survey was carried out in accordance with guidelines set out by the Royal Commission on Historic Monuments for a level 3 record. The survey comprised a fully analytical record of the building's development, a comprehensive photographic survey, attention to the methods of construction, chronological development and alterations, and features of special interest. The building has been recorded photographically both digitally and on 35mm format using colour print and black and white media.

The site fronts Bath Road and extends to the north. The buildings are located along the street frontage, with the water tower to the east and the pumping station and ancillary buildings to the west. The reservoirs and tanks occupy the majority of the site, to the north. Along the street frontage the boundary is marked by a limestone block wall, divided into alternating panels of full-height stone wall and lower stone wall surmounted by iron railings, separated by square stone pillars each topped with a concrete capstone. The entrance, at the western end of the site was marked by a curved section of limestone wall and a pair of pillars built in ashlar style and surmounted by a pediment with dentile decoration on the underside.

The majority of the site is approximately 6m higher than the street frontage and buildings area. This takes the form of an earth bund and is accessed via a set of concrete steps located in the centre of the site between the water tower and the pump house. At the top of the steps are the circular filtration beds, behind which is the covered reservoir. Behind the covered reservoir, the disused reservoir was covered in scrub.

The water tower was located in the south-east corner of the site and was square in plan with four near-identical elevations. The tower was of brick construction, predominantly laid in English bond in a mixture of red and blue bricks (probably Staffordshire blue bricks), set in cement mortar though this is presumably later pointing of original lime mortar. The blue bricks were laid to create pairs of horizontal bands across the elevations with a central pair set slightly further apart and in-filled with a cross decoration. Within each elevation were three tall lancet openings above which were three oculi with a white stone keystone at each quarter of the circle. The oculi and top of the lancets were also decorated with blue and red bricks. Within the bottom of the lancets were located doors to access each room, above which was cladding painted brown. Two doorways in the north face had been blocked up. The oculi were filled with brown louvers. On the east and west elevations the central lancet and oculus were built blind (bricked to match the elevation). The entablature of the building consisted of rows of projecting and moulded brickwork in red brick with a single band of blue bricks running through it. Above the entablature was the cast iron water tank.

Internally the water tower building was divided into six equal sized rooms. Each room originally had individual access from the north or south sides and four of the rooms had further access from the east and west sides. Internally the design of tall lancet openings with oculi above continued on the east–west aligned central wall, linking two rooms together. The pattern created by the use of blue bricks was not continued inside, nor were the stone keystones within the oculi on the internal walls. The walls were of plain brick; however a horizontal line of stone blocks were used to sit the water tank onto. The floor treatment varied from room to room with concrete floors found in rooms 1, 4 and 5, flagstone floors found in rooms 3 and 6 and a wooden floor in room 2.

Stairs leading up to the tank at the top of the tower were within room 2. These steps were steep and narrow, and of a simple wooden construction supported on cast iron brackets. A number of wooden landing stages were present up the height of the tower, but these were not safe to access. Within room 3 a c. 2.5m high wall had been built, in stretcher bond, at a later date to sub-divide the room. Graffiti on the wall within this room gives the dates '3 May 1918 on; 24 May [...] off'. Within room 4 the ground level was lower than the outside resulting in a step down into the room from the entrance in the west wall. The step was formed from an inverted arch and then in-filled with bricks. The same step arrangement could be seen in the blocked opening in the north wall. Within room 5 was housed part of the machinery for the tower and throughout the other rooms were various pipes and meters.

The pump house was located in the south-west corner of the site and was roughly square in plan, but with varying

Event ID: ERM1571 Name: Bath Road Reservoirs, Reading, Berkshire

roof lines and a small extension to the north. The building was brick built of red brick and laid in Flemish bond. A plinth course was present around the building topped with stone. The roof was covered in slate and the gable ends were in the Dutch style surmounted by stone with a spiked ball at the top.

Within the south façade of the pump house were two Dutch gable ends at the western end. Within each of the gables was an arrow slit type window picked out in stone. A stone string course was also present across the gable ends at the height of the roof line. At both ends of the façade was a rectangular window with a stone block surround, and in-filled with white glazed bricks. The windows may have been built blind originally. Beside each of the windows was a door with a double curved brick arch above it, supported on a pair of brick pilasters with stone capitals. The western door had a stone keystone and glass above the door. To the east of it was a scar in the brickwork showing where the two walls butted each other. The centre of the façade had a pair of double loading doors raised up above the ground, with a hoist.

The east façade of the pump house was predominantly obscured by the bund and vegetation. Removal of this revealed the Dutch gable end with the parapet extending to cover the valley between the two roofs. A small lean-to extension was present in the centre of the façade. The northernmost block was of plain brick laid in English bond. The west façade contained two blocked up/blind windows and two pairs of double doors, along with a small window towards the north end. The north façade was not accessible.

Internally the pump house building could be sub-divided into seven rooms (numbered here as 7-12). Entrance was gained through a pair of double doors in the south façade into room 7. The floor was of concrete and the ceiling was timber clad. A small area had been separated off in the north-east corner with a stud partition wall. Machinery was also present within the room. To the east was room 8, accessed via a set of steps up to the raised metal floor. Within room 8 was housed more machinery. In the south-west corner was a blocked doorway. To the north of room 7 was room 9, a large double height room with two rows of skylights in the roof, which was supported by metal trusses. The floor was covered in red quarry tiles and the walls were a combination of painted brickwork on the upper half and tiled on the lower half with white glazed tiles. A line of brown tiles decorated it with a line of moulded brown tiles along the top. The room housed more machinery, including a hoist mechanism that could track along the length of the building, built by Appleby Frodingham steel company. The I-beam across the room was built by Herbert Morris of Loughborough, crane manufacturers. In the north-west corner was a small store cupboard (room 10). Room 11 was located to the west of room 10. It was sub-divided by a low wall, with the southernmost part having no access on the day. The roofline at the southern end was lower than the majority of it. A pair of double doors was present in the western façade and a blind window. To the north was a toilet. To the north of room 12 was a further room which had no internal access and was the former sub-station.

Aspects of the original building are still present. Room 8 forms part of the pump house that was on the original designs. It is possible that the westernmost block is contained within part of room 11, but it is not possible to see any evidence of this in the brickwork. It is likely that the north-east corner of room 9 is the same as that seen on the 1853 plans. Room 7 forms the extension seen on the 1879 Ordnance Survey map. By 1910, the western block, incorporating room 11 had been extended. This may have occurred in more than one stage based on the change of height within the roof line, although it may have been to tie in with the existing gable end.

Two ancillary buildings were present to the rear (north-west) of the pumping station. The larger building was a substation with a smaller building tacked onto the rear. The substation was of red brick construction bonded in (pointed) cement mortar. Above the windows and doors were concrete lintels. The roof was flat and constructed of concrete lintels. A small parapet was present on the north and south walls constructed of line of proud stretchers above which was a soldier course. Internally the building was a simple rectangle with access in the south face via a pair of double iron doors, and two windows in the west wall and one in the north wall. The floor was concrete, with a gully running round the edge, presumably for pipes and cables.

To the rear of the building was a low, single-storey building in a dilapidated state. This building was subdivided into two rooms, each with its own access. The bricks were laid in stretcher bond.

The Filtration Beds and Reservoirs were located within an earthen bund, accessed by a set of steps from the south-central part of the site, between the pump house and water tower. The steps were of brick construction overlaid by a stone slab and held together by cement mortar. Down the western side of the steps was a steel rail, which was probably a later addition.

The filtration beds were at the southernmost end of the bund and consisted of a covered circular tank which was covered in scrub and inaccessible. Further to the north was a larger circular tank of brick construction and whitewashed. No access was possible. Within the centre of the tank was a brick pillar. Around the edges were various cast iron inlet and outlet pipes. A set of iron ladder rungs were laid into the wall on the southern side for

Event ID: ERM1571 **Name:** Bath Road Reservoirs, Reading, Berkshire

access. To the north of the main tank was a further small, brick built, covered tank.

Behind the filtration beds was the rectangular, covered reservoir. This was completely grassed over and no detail of the actual reservoir could be seen. Around the edges were brick built box structures. Architectural plans suggest that the reservoir had approximately 45° sloping sides and a flat base. The proposed cover was constructed of iron, supported on columns and girders. The signature and date suggest that the cover was constructed around 1933.

At the rear of the site (northern end) was the disused reservoir. It was rectangular in shape, except for the north-west corner where it followed the line of the site boundary and railway line. It consisted of sloped sides at approximately a 45° angle and a flat base. The entire reservoir was overgrown with scrub.

In conclusion, much of the site is as it was designed in 1850 and mapped in 1853. The pump house has undergone a number of changes from its initial design in 1850 through to the first mapping of the site in 1853, with subsequent extensions prior to 1879 and 1910. The water tower did not feature in the initial designs for the site but was built at some point between 1853 and 1879 in the gothic style. Probably around 1930, a new substation and lean-to were constructed to the rear of the pump house <1>.

Sources

- (1) Unpublished document: Thames Valley Archaeological Services. 2014. Bath Road Reservoirs, Reading, Berkshire - Building Recording.

Associated Monuments

MRM15888	Water Tower, Bath Road, Reading, Berkshire (Listed Building MRM15888)
MRM16230	Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire (Monument MRM16230)
MRM16231	Station supervisor's house, the waterworks site, Bath Road, Reading, Berkshire (Monument MRM16231)
MRM16232	Limestone boundary wall and cast iron railings, the waterworks site, Bath Road, Reading, Berkshire (Monument MRM16232)
MRM17561	Ancillary buildings - Bath Road Reservoirs, Bath Road, Reading, Berkshire (Monument MRM17561)
MRM17562	Reservoirs and filter beds - Bath Road Reservoirs, Bath Road, Reading, Berkshire (Monument MRM17562)
MRM17563	Reading Water Works - Bath Road, Reading, Berkshire (Monument MRM17563)

Berkshire Archaeology Designation Full Report

23/09/2014

Number of records: 2

Designations within a 200m radius of Bath Road Bridge BKE3729

DesigUID: DRM2663	Type: Listed Building	Status: Active
NHLE ID	National Ref	Volume/Map/Item
1409263	1409263	
Name:	Bath Road Bridge (BKE3729)	
Grade: II	Date Assigned: 17/07/2012	Amended:
		Revoked:

Legal Description

Bath Road Bridge, Bath Road, A4, Reading Grade: II Date first listed: 17-Jul-2012

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description

Summary of Building
Tall, triple-arch skew road overbridge with semi-elliptical spans, set in a cutting, erected c.1845-47.

Reasons for Designation

Bath Road Bridge is designated at Grade II for the following principal reasons:

- * Selectivity: a triple-arch skew overbridge with semi-elliptical arches; in this case it is unusually high, built to span a deep cutting;
- * Design, engineering & material interest: built to the high standard employed for brick-built bridges of this date; intact outer faces, semi-elliptical arches and arch rings, with slightly heightened, patched and repaired parapets; similar to Tilehurst Bridge which was constructed with internal voids and spine walls that reduce the weight of the superstructure and carry the carriageway;
- * Historic interest: built 1845-7, shortly after the main line by the Hampshire and Berkshire Railway for the Reading-Newbury line, probably by an assistant engineer to Brunel's earlier specification; the drawings survive;
- * Group Value: forms an impressive pair with the similar and contemporary Tilehurst Road Bridge.

History

The railway line from Reading to Newbury, opened in 1847, was the outcome of a dispute between the Great Western Railway (GWR) and the London and South Western Railway about the provision of a railway to Newbury. The GWR originally proposed to reach the town by a branch from the main line at Pangbourne, but eventually settled on the present route. This was built by a subsidiary company to the GWR, the Berkshire and Hampshire Railway. The engineer was Isambard Kingdom Brunel (1806-59) who, as with the main line, designed the line on the broad gauge. Having previously dismissed the idea of a route to Bristol via Newbury and the Vale of Pewsey he did not regard this as a major project: it only became part of the direct GWR route to Exeter in 1906. It is not known who was the Resident Engineer for the project.

Bath Road Bridge was erected during the construction of the line c. 1845-7 to carry the London-Bristol turnpike (now the A4) south-west of Reading.

In one or more phases in the late-C19 and mid to late-C20 some patching and refacing, and other minor alterations, have been carried out in engineering brick. In the last few decades, steel footbridges have been built alongside on both sides.

Details

MATERIALS: original handmade red brick. Red engineering brick used for patching and for alterations to the parapets. English bond. Limestone copings.

DESCRIPTION: the central arch is slightly taller than the side arches. Dimensions appear to be similar to those of the neighbouring and contemporary Tilehurst Road Bridge (BKE3709), which has a central span of 38ft 4in and c. 30ft side arches. The carriageway is 24ft [7.3m] between parapets. The piers are tapered and were originally pierced by three tapering transverse arches. These arches have been blocked up with brick so they now read as blind arches. At least one tie plate is visible in the north (low mileage) face. Abutments/wing walls are vertical and straight. A stepped string course runs across each face and above the outer face of the parapet is stepped. They have been raised in the C20 by two courses of red engineering brick above the original coping left in-situ and have steeply pitched purple brick copings with small anti-climb spikes. The parapets are also rebuilt in red engineering brick at the ends, possibly in connection with the construction of the entrances to the modern steel footbridges which flank the bridge on both sides (these are not attached.) In particular, the east end of the south

DesigUID: DRM2663 **Name:** Bath Road Bridge (BKE3729)

(high mileage) parapet was truncated and rebuilt in engineering brick so that it curves back on a concrete raft to form part of the entrance to the southern footbridge. The modern steel footbridges are not of special interest.

The bridge is generally not visible in the wider landscape because it was designed to span a cutting. However, it is mutually visible with Tilehurst Road Bridge (BKE3709).

Selected Sources

- 1.Book Reference - Author: Brindle, Steven and Cruickshank, Dan - Title: Brunel: The Man Who Built the World - Date: 2005
- 2.Unpublished Title Reference - Author: Alan Baxter & Associates - Title: The History and Significance of the Great Western Main Line - Date: 2012 - Source: Alan Baxter & Associates
- 3.Book Reference - Author: Cross-Rudkin, P and Chrimes, M - Title: EDS, Biographical Dictionary of Civil Engineers Vol 2: 1830-1890 - Date: 2008
- 4.Unpublished Title Reference - Author: Kinchin-Smith, R - Title: Crossrail Technical Assessment of Historic Railway Bridges - Date: 2005 - Source: RPS Planning and Environment
- 5.Book Reference - Author: MacDermot, E, T - Title: A History of the Great Western Railway - Date: 1927, revised ed. 1964
- 6.Book Reference - Author: Pugsley, A - Title: The Works of Isambard Kingdom Brunel - Date: 1976
- 7.Book Reference - Author: Vaughan, A - Title: A Pictorial Record of Great Western Architecture - Date: 1977

National Grid Reference:SU7004272662

Curatorial Notes

Designating Organisation: English Heritage

Location

Grid Reference: SU 70042 72662 (point)

Map sheet: SU77SW **Area (Ha):** 0.00

Administrative Areas

Non Parish Area Reading, Reading, Berkshire
Unitary Authority Reading, Berkshire

Postal Addresses - None recorded

Listed Building Addresses

Bath Road, A4, Reading

Sources

English Heritage National Inventory: English Heritage. The National Heritage List for England. 1409263

Associated Monuments

MRM16677 Listed Building: Bath Road Bridge (BKE3729), Reading, Berkshire

Additional Information

LegacyID:

List Locality:

List Parish: READING

List District: READING

List County:

Group Value: **Upload Date:**

DesigUID: DRM1843	Type: Listed Building	Status: Active
NHLE ID	National Ref	Volume/Map/Item
1366003	1366003	934, 13, 10018
Name: MILE POST APPROXIMATELY 50 METRES SOUTH WEST OF WATER TOWER		
Grade: II	Date Assigned: 22/11/1995	Amended: Revoked:

DesigUID: DRM1843 **Name:** MILE POST APPROXIMATELY 50 METRES SOUTH WEST OF WATER

Legal Description

1.READING SU7072 BATH ROAD 934- /13/10018 (North side) Mile post approx 50m SW of water tower GV II.
2.Mile post. Early C19. Cast iron. A raised backplate is inscribed LONDON 40, above a canted hollow lower section inscribed READING (?)1 on the left side and NEWBURY 16 on the right. Stands against a wall, which is not of special architectural or historic interest. Included as part of the street furniture of the old London to Bristol highway, manifesting its former importance as the main route to the west.
Listing NGR: SU7022572728

Curatorial Notes

Type and date: Early C19 MILEPOST. Date: from 1800 to 1832
Main material: cast iron

Designating Organisation:

Location

Grid Reference: SU 70225 72728 (point)

Map sheet: SU77SW **Area (Ha):**

Administrative Areas

Unitary Authority Reading, Berkshire

Postal Addresses

76 Bath Road, Reading, RG30 2BE

Listed Building Addresses

Statutory

MILE POST APPROXIMATELY 50 METRES SOUTH WEST OF WATER TOWER

Sources - None recorded

Associated Monuments

05052.27.001 Listed Building: Mile post 50m SW of Water Tower, Bath Road, Reading

Additional Information

LegacyID: 444911

List Locality:

List Parish:

List District: READING

List County: BERKSHIRE

Group Value: **Upload Date:**

Berkshire Archaeology Monument Full Report**23/09/2014****Number of records: 8****Monuments within a 200m radius of Bath Road Bridge BKE3729**

HER Number	Site Name	Record Type
05052.27.001 - MRD5973	Mile post 50m SW of Water Tower, Bath Road, Reading	Listed Building

A grade II listed cast iron mile post is located 50 metres SW of the Water Tower on the Bath Road, Reading.

Monument Types and Dates

MILESTONE (Post Medieval - 1800 AD to 1900 AD)
Evidence STRUCTURE

Description and Sources**Description**

A grade II listed cast iron mile post. A raised back plate is inscribed LONDON 40, above a canted hollow section inscribed READING (?) 1 on the left side and NEWBURY 16 on the right. It stands against a wall, which is not of special architectural or historic interest. It is included as part of the street furniture of the old London to Bristol Highway, manifesting its former importance as the main route to the west <1>.

Recorded by the Berkshire Field Research Group in 1966 - details and sketch<2>.

Sources

- (1) English Heritage National Inventory: English Heritage. The National Heritage List for England.
- (2) Bibliographic reference: Rosevear, A. 2004. Milestones in The Thames Valley - A survey by the Milestone Society.
- (3) Index: Berkshire Field Research Group. 1963-7. Card catalogue of the Milestones of Berkshire I - New Berkshire. Ref. 2

Location**National Grid Reference**

SU 70225 72728 (point) SU77SW Point

Administrative Areas

Non Parish Area Reading, Reading, Berkshire
Unitary Authority Reading, Berkshire

Address/Historic Names - None recorded**Designations, Statuses and Scorings****Associated Designations**

Listed Building (II) - 1366003	MILE POST APPROXIMATELY 50 METRES SOUTH WEST OF WATER TOWER	Active	DRM1843
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Other Statuses and Cross-References

Historic Environment Record - 05052.27.001	Active
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Ratings and Scorings

Condition	Good
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Land Use**Associated Historic Landscape Character Records - None recorded****Other Land Classes**

Geology	river terrace gravel
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Related Monuments

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Page 1

HER Number 05052.27.001 - MRD5973 **Site Name** Mile post 50m SW of Water Tower, Bath Road, Reading

05052.00.000	A4 Bath Road from London to Bristol through Berkshire	Hierarchical
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Finds - None recorded**Associated Events/Activities - None recorded****Associated Individuals/Organisations - None recorded**

zMonFullRpt

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Page 2

HER Number 05055.01.000 - MRD6122 **Site Name** Reading to Mortimer Station, Berkshire

HER Number	Site Name	Record Type
05055.01.000 - MRD6122	Reading to Mortimer Station, Berkshire	Monument

Section of Basingstoke branch railway line between Reading and Mortimer Station.

Monument Types and Dates

RAILWAY (Post Medieval to Modern - 1848 AD to 2050 AD)
Evidence STRUCTURE

Description and Sources

Description

Section of Basingstoke railway line between Reading and Mortimer Station. The Basingstoke branch line went from Reading to Reading West, Mortimer, Bramley and Basingstoke <1>.

Sources

(1) Bibliographic reference: Adams, W (ed). 1993. Encyclopedia of the Great Western Railway.

Location

National Grid Reference

Centroid SU 69932 72232 (MBR: 1563m by SU67SE Area 3398m)

Administrative Areas

County Berkshire
Non Parish Area Reading, Reading, Berkshire
Unitary Authority Reading, Berkshire

Address/Historic Names - None recorded

Designations, Statuses and Scorings

Associated Designations - None recorded

Other Statuses and Cross-References

Historic Environment Record - 05055.01.000 Active

Ratings and Scorings

Condition Good

Land Use

Associated Historic Landscape Character Records - None recorded

Other Land Classes - None recorded

Related Monuments - None Recorded

Finds - None recorded

Associated Events/Activities - None recorded

Associated Individuals/Organisations - None recorded

HER Number MRM16230 **Site Name** Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire

HER Number	Site Name	Record Type
MRM16230	Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire	Monument

A Victorian pump house formed part of the 19th century development of the waterworks site.

Monument Types and Dates

WATER PUMPING STATION (Post Medieval to Modern - 1852 AD? to 2050 AD)
Evidence EXTANT BUILDING

Description and Sources

Description

Also at the waterworks site is an unlisted Victorian red brick pump house built in an eclectic baroque revival style. This single storey brick building is of modest architectural pretensions, but is nonetheless a robust piece of municipal engineering. It is of loosely baroque revival style with Dutch gables fronting Bath Road. Visual inspection of the building clearly reveals that it has been extended rearwards into the reservoir bank at some stage, and map evidence indicates that this was during the 20th century. It must be assumed that this building originally housed a steam pump, but it now contained 20th century pumping gear. Along with the water tower and the front boundary wall and railings, the pump house marks a significant stage in the 19th century development of Reading <1>.

It is probable that the pump house originally housed two 8-horsepower vertical steam engines, which were replaced in 1894 by two large steam engines, with an even larger one added in 1902. The two smaller engines were again replaced in 1927 by three electric pumps and a further diesel pump, presumably replacing the larger steam pump <2>.

The original plans for the Bath Road reservoir site dated 30th November 1850 show the pump house in the south-west corner of the site.

The Board of Health commissioned a map in 1853 of the waterworks within Reading. This appears to show the site as it was built, with the two reservoirs at the rear and four filtration tanks at the southern end of the site. The pump house was located to the south-west and the superintendents' house was beside it to the west. The pump house has been extended to the rear and cut into the bund around the reservoir. It is not clear whether it was built larger than the original plan or rapidly extended after being built. By the 1881 Ordnance survey map the pump house has been extended again. By 1911–1912 the eastern block of the pump house has been extended at the front and rear and by 1931–1932 further buildings have been added to the rear of the pump house including a new sub-station and lean to.

Building recording of the pump house was undertaken in 2013. The pump house was located in the south-west corner of the site and was roughly square in plan, but with varying roof lines and a small extension to the north. Externally, the building was brick built of red brick measuring 230mm x 112mm x 75mm (9 1/16" x 4 11/16" x 2 15/16") and laid in Flemish bond. A plinth course was present around the building topped with stone. The roof was covered in slate and the gable ends were in the Dutch style surmounted by stone with a spiked ball at the top.

Within the south façade were two Dutch gable ends at the western end. Within each of the gables was an arrow slit type window picked out in stone. A stone string course was also present across the gable ends at the height of the roof line. At both ends of the façade, was a rectangular window with a stone block surround, and infilled with white glazed bricks. The windows may have been built blind originally. Beside each of the windows was a door with a double curved brick arch above it, supported on a pair of brick pilasters with stone capitals. The western door had a stone keystone and glass above the door. To the east of it was a scar in the brickwork showing where the two walls butted each other. The centre of the façade had a pair of double loading doors raised up above the ground, with a hoist.

The east façade was predominantly obscured by the bund and vegetation. Removal of this revealed the Dutch gable end with the parapet extending to cover the valley between the two roofs. A small lean-to extension was present in the centre of the façade. The northernmost block was of plain brick laid in English bond.

The west façade contained two blocked up/blind windows and two pairs of double doors, along with a small window towards the north end. The north façade was not accessible.

Internally the building could be sub-divided into seven rooms or chambers (numbered 7-12 here). Entrance was gained through a pair of double doors in the south façade into room 7. The floor was of concrete and the ceiling was timber clad. A small area had been separated off in the north-east corner with a stud partition wall. Machinery was also present within the room. To the east was room 8, accessed via a set of steps up to the raised metal floor. Within room 8 was housed more machinery. In the south-west corner was a blocked doorway. To the north of room 7 was room 9, a large double height room with two rows of skylights in the roof, which was supported by metal trusse. The floor was covered in red quarry tiles and the walls were a combination of painted brickwork on the upper half and tiled on the lower half with white glazed tiles. A line of brown tiles decorated it with a line of moulded brown tiles along the top. The room housed more machinery, including a hoist mechanism that could track along the length of the building, built by Appleby Frodingham steel company. The I-beam across the room was built by Herbert Morris of Loughborough, crane manufacturers. In the north-west corner was a small store

HER Number MRM16230 **Site Name** Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire

cupboard (room 10). Room 11 was located to the west of room 10. It was sub-divided by a low wall, with the southernmost part having no access on the day. The roofline at the southern end was lower than the majority of it. A pair of double doors was present in the western façade and a blind window. To the north was a toilet. To the north of room 12 was a further room which had no internal access and was the former sub-station.

Aspects of the original building are still present. Room 8 forms part of the pump house that was on the original designs. It is possible that the westernmost block is contained within part of room 11, but it is not possible to see any evidence of this in the brickwork. It is likely that the north-east corner of room 9 is the same as that seen on the 1853 plans. Room 7 forms the extension seen on the 1879 Ordnance Survey map. By 1910 the western block, incorporating room 11 had been extended. This may have occurred in more than one stage based on the change of height within the roof line, although it may have been to tie in with the existing gable end <3>.

Sources

- (1) Unpublished document: CgMs Consulting. 2008. Historic Buildings Report - The Water Tower, Bath Road, Reading, Berkshire.
- (2) Newsletter: Berkshire Industrial Archaeology Group. 2009. BIAG News. No. 21. Pages 9-10 "A Layman's Potted History of the Bath Road Reservoir" by Graham Griffiths
- (3) Unpublished document: Thames Valley Archaeological Services. 2014. Bath Road Reservoirs, Reading, Berkshire - Building Recording. Pages 5-6; Figs: 4-9 and 14-15; Plates 11-19.

Location

National Grid Reference

Centroid SU 70211 72744 (MBR: 20m by 20m) SU77SW Area

Administrative Areas

Non Parish Area Reading, Reading, Berkshire

Unitary Authority Reading, Berkshire

Address/Historic Names - None recorded

Designations, Statuses and Scorings

Associated Designations - None recorded

Other Statuses and Cross-References - None recorded

Ratings and Scorings - None recorded

Land Use

Associated Historic Landscape Character Records - None recorded

Other Land Classes - None recorded

Related Monuments

MRM17563	Reading Water Works - Bath Road, Reading, Berkshire	Hierarchical
MRM15888	Water Tower, Bath Road, Reading, Berkshire	Functional Association
MRM16231	Station supervisor's house, the waterworks site, Bath Road, Reading, Berkshire	Functional Association
MRM16232	Limestone boundary wall and cast iron railings, the waterworks site, Bath Road, Reading, Berkshire	Functional Association
MRM17561	Ancillary buildings - Bath Road Reservoirs, Bath Road, Reading, Berkshire	Functional Association
MRM17562	Reservoirs and filter beds - Bath Road Reservoirs, Bath Road, Reading, Berkshire	Functional Association

Finds - None recorded

Associated Events/Activities

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HER Number MRM16230 **Site Name** Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire

ERM926 The Water Tower, Bath Road, Reading, Berkshire (Event - Interpretation)

ERM1571 Bath Road Reservoirs, Reading, Berkshire (Event - Survey. Ref: BRR13/109)

Associated Individuals/Organisations - None recorded

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HER Number MRM16232 **Site Name** Limestone boundary wall and cast iron railings, the waterworks site, Bath Road, Reading, Berkshire

HER Number	Site Name	Record Type
MRM16232	Limestone boundary wall and cast iron railings, the waterworks site, Bath Road, Reading, Berkshire	Monument

A limestone boundary wall and cast iron railings in mid-Victorian style along the street frontage of the waterworks site.

Monument Types and Dates

BOUNDARY WALL (Post Medieval to Modern - 1852 AD? to 2050 AD)

Evidence EXTANT STRUCTURE

RAILINGS (Post Medieval to Modern - 1852 AD? to 2050 AD)

Evidence EXTANT STRUCTURE

Description and Sources

Description

At the front of the site, facing Bath Road, there is a continuous limestone boundary wall with cast iron railings set in at intervals extending for the entire site frontage of the site. The boundary wall and railings are of typically mid Victorian style, and clearly date from the time of the establishment of the waterworks site. However, both the railings and wall were deleted from the listing description in 1995. Together with the water tower and unlisted pump house, the railings and boundary wall mark a significant stage in the 19th century development of Reading <1>.

The street frontage of the Bath Road Reservoirs is marked by a limestone block wall divided into alternating panels of full-height stone wall and lower stone wall surmounted by iron railings, separated by square stone pillars each topped with a concrete capstone. The railings were of wrought iron painted black and surmounted by finials in the shape of a foliate bud. Supporting the railings were scroll shaped backstays. The entrance, at the western end of the site was marked by a curved section of limestone wall and a pair of pillars built in ashlar style and surmounted by a pediment with dentile decoration on the underside. There was a slightly recessed panel on the pillar <3>.

Sources

- (1) Unpublished document: CgMs Consulting. 2008. Historic Buildings Report - The Water Tower, Bath Road, Reading, Berkshire.
- (2) Newsletter: Berkshire Industrial Archaeology Group. 2009. BIAG News. No. 21. Page 10 "A Layman's Potted History of the Bath Road Reservoir" by Graham Griffiths
- (3) Unpublished document: Thames Valley Archaeological Services. 2014. Bath Road Reservoirs, Reading, Berkshire - Building Recording. Page 3; Plates 1-2; Figure 11

Location

National Grid Reference

Centroid SU 70212 72725 (MBR: 82m by 20m) SU77SW Line

Administrative Areas

Non Parish Area Reading, Reading, Berkshire

Unitary Authority Reading, Berkshire

Address/Historic Names - None recorded

Designations, Statutes and Scorings

Associated Designations - None recorded

Other Statutes and Cross-References - None recorded

Ratings and Scorings - None recorded

Land Use

Associated Historic Landscape Character Records - None recorded

Other Land Classes - None recorded

Related Monuments

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HER Number MRM16232 **Site Name** Limestone boundary wall and cast iron railings, the waterworks site, Bath Road, Reading, Berkshire

MRM17563	Reading Water Works - Bath Road, Reading, Berkshire	Hierarchical
MRM15888	Water Tower, Bath Road, Reading, Berkshire	Functional Association
MRM16230	Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire	Functional Association
MRM16231	Station supervisor's house, the waterworks site, Bath Road, Reading, Berkshire	Functional Association

Finds - None recorded

Associated Events/Activities

ERM926 The Water Tower, Bath Road, Reading, Berkshire (Event - Interpretation)

ERM1571 Bath Road Reservoirs, Reading, Berkshire (Event - Survey. Ref: BRR13/109)

Associated Individuals/Organisations - None recorded

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HER Number	MRM16677	Site Name	Bath Road Bridge (BKE3729), Reading, Berkshire
HER Number	MRM16677	Site Name	Bath Road Bridge (BKE3729), Reading, Berkshire
		Record Type	Listed Building
A Grade II listed red brick tall, triple-arch skew road overbridge with semi-elliptical spans, set in a cutting, erected c.1845-47.			
Monument Types and Dates			
ROAD BRIDGE (Post Medieval to Modern - 1845 AD to 2050 AD)			
Evidence EXTANT STRUCTURE			
Description and Sources			
Description			
A Grade II listed tall, triple-arch skew road overbridge with semi-elliptical spans, set in a cutting, erected c.1845-47 <1>.			
A good example of the standard Brunel triple-arched overbridge, dating from the construction of the Berkshire & Hampshire Line. Semi-elliptical arches, red brick and skewed. The bridge was built to carry the London-Bristol turnpike (now A4) and therefore has a wider roadway than normal. Original handmade red brick. Red engineering brick used for patching and for alterations to the parapets. English bond. Limestone copings. The central arch is slightly taller than the side arches. Dimensions appear to be similar to those of neighbouring and contemporary Tilehurst Road Bridge, which has a central span of 38 ft 4 in and c. 30 ft side arches. The carriageway is 24 ft [7.3 m.] between parapets. The piers are tapered and were originally pierced by three tapering transverse arches. These arches have been blocked up with brick so they now read as blind arches. At least one tie plate is visible in the north (low mileage) face. Abutments/wing walls are vertical and straight. A stepped string course runs across each face and above the outer face of the parapet is stepped. They have been raised in the twentieth century by two courses of red engineering brick above the original coping left in-situ and have steeply pitched purple brick copings with small anti-climb spikes. The parapets are also rebuilt in red engineering brick at the ends, possibly in connection with the construction of the entrances to the modern steel footbridges which flank the bridge on both sides. In particular, the east end of the south (high mileage) parapet was truncated and rebuilt in engineering brick so that it curves back on a concrete raft to form part of the entrance to the southern footbridge. Considered to be of medium architectural and historic interest and no archaeological or artistic interest <2>.			
Sources			
(1) English Heritage National Inventory: English Heritage. The National Heritage List for England. List entry Number: 1409263			
(2) Unpublished document: Alan Baxter. 2012. Great Western Main Line Route Structures Gazetteer. BKE3729			
Location			
National Grid Reference			
SU 7004 7266 (point)	SU77SW	Point	
Administrative Areas			
Non Parish Area	Reading, Reading, Berkshire		
Unitary Authority	Reading, Berkshire		
Address/Historic Names - None recorded			
Designations, Statutes and Scorings			
Associated Designations			
Listed Building (II) - 1409263	Bath Road Bridge (BKE3729)	Active	DRM2663
Other Statutes and Cross-References - None recorded			
Ratings and Scorings - None recorded			
Land Use			
Associated Historic Landscape Character Records - None recorded			
Other Land Classes			
Landuse	In use as building		
Related Monuments			
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HER Number	MRM16677	Site Name	Bath Road Bridge (BKE3729), Reading, Berkshire
05053.00.000	Great Western Railway (GWR) - London to Reading Station	Hierarchical	
Finds - None recorded			
Associated Events/Activities - None recorded			
Associated Individuals/Organisations - None recorded			
zMonFullRpt			
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HER Number MRM17561 **Site Name** Ancillary buildings - Bath Road Reservoirs, Bath Road, Reading, Berkshire

HER Number	Site Name	Record Type
MRM17561	Ancillary buildings - Bath Road Reservoirs, Bath Road, Reading, Berkshire	Monument

Two ancillary buildings built around 1930 were located to the rear of the pumping station at Bath Road Reservoirs.

Monument Types and Dates

BUILDING (Modern - 1930 AD)	
Evidence	DOCUMENTARY EVIDENCE
Evidence	EXTANT BUILDING
ELECTRICITY SUB STATION (Modern - 1930 AD)	
Evidence	DOCUMENTARY EVIDENCE
Evidence	EXTANT BUILDING

Description and Sources

Description

Two ancillary buildings were present to the rear (north-west) of the pumping station. The larger building was a substation with a smaller building tacked onto the rear. The substation was of red brick construction bonded in (pointed) cement mortar. Above the windows and doors were concrete lintels. The roof was flat and constructed of concrete lintels. A small parapet was present on the north and south walls constructed of a line of proud stretchers above which was a soldier course. Internally the building was a simple rectangle with access in the south face via a pair of double iron doors, and two windows in the west wall and one in the north wall. The floor was concrete, with a gully running round the edge, presumably for pipes and cables.

To the rear of the building was a low, single-storey building in a dilapidated state. This building was subdivided into two rooms, each with its own access. The bricks were laid in stretcher bond.

From the OS mapping these buildings can be seen to have been added to the rear of the pump house by 1931-1932 <1>.

Sources

- (1) Unpublished document: Thames Valley Archaeological Services. 2014. Bath Road Reservoirs, Reading, Berkshire - Building Recording. Pages 6-7; Figures 8-9; Plate 20

Location

National Grid Reference

Centroid SU 70196 72757 (MBR: 9m by 13m) SU77SW Area

Administrative Areas

Non Parish Area Reading, Reading, Berkshire
Unitary Authority Reading, Berkshire

Address/Historic Names - None recorded

Designations, Statutes and Scorings

Associated Designations - None recorded

Other Statutes and Cross-References - None recorded

Ratings and Scorings - None recorded

Land Use

Associated Historic Landscape Character Records - None recorded

Other Land Classes

Geology gravel

Related Monuments

MRM17563	Reading Water Works - Bath Road, Reading, Berkshire	Hierarchical
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HER Number MRM17561 **Site Name** Ancillary buildings - Bath Road Reservoirs, Bath Road, Reading, Berkshire

MRM15888	Water Tower, Bath Road, Reading, Berkshire	Functional Association
MRM16230	Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire	Functional Association
MRM17562	Reservoirs and filter beds - Bath Road Reservoirs, Bath Road, Reading, Berkshire	Functional Association

Finds - None recorded

Associated Events/Activities

ERM1571 Bath Road Reservoirs, Reading, Berkshire (Event - Survey. Ref: BRR13/109)

Associated Individuals/Organisations - None recorded

zMonFullRpt

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HER Number MRM17563 **Site Name** Reading Water Works - Bath Road, Reading, Berkshire

HER Number	Site Name	Record Type
MRM17563	Reading Water Works - Bath Road, Reading, Berkshire	Monument

Reading Water Works date back to the mid 19th century. A number of extant buildings are still on the site including the pump house, water tower and Station Supervisors house.

Monument Types and Dates

WATERWORKS (Post Medieval - 1853 AD)	
Evidence	DOCUMENTARY EVIDENCE
Evidence	EXTANT BUILDING

Description and Sources

Description

In 1848 Parliament introduced the Public Health Act as the first step in improving sanitary conditions and therefore public health. A local Water Act was passed in 1851 for Reading and was amended in 1868 to further provide waterworks for Reading. The original plans for the Bath Road reservoir site are dated 30th November 1850 and show the two reservoirs, four circular filtration tanks surrounded by a bund and the pump house in the south-west corner. The field is numbered '24' and is recorded as being an arable field belonging to William Stephens, who appears to be a local landowner.

In 1853 the Board of Health commissioned a map of the waterworks within Reading, which included the reservoirs. This map appears to show the site as it was built, with the two reservoirs at the rear and four filtration tanks at the southern end of the site. The pump house was located to the south-west and the superintendents' house was beside it to the west. The pump house has been extended to the rear and cut into the bund around the reservoir. It is not clear whether it was built larger than the original plan or rapidly extended after being built. The boundary with Bath Road is marked by a wall which curves to an entrance at the west end of the site. The water tower is not present at this point.

The next map to show any detail of the site is the 1879 Reading Town plan, which however, extends only as far as the water tower. The rest of the site is included on the 1881 map which shows the water tower (labelled tank) and pumping house, behind which were the two reservoirs and six circular tanks. The pump house has been extended again, to the east. At this period the house to the west of the pumping station was included within the boundary of the waterworks and was housing for the superintendent. No change is shown by 1899–1900, but the round tanks are now labelled as filter beds. By 1911–1912 the eastern block of the pump house has been extended at the front and rear and by 1931–1932 further buildings have been added to the rear of the pump house. The westernmost of the filtration beds has also been filled in. By 1958–1960 the eastern filtration bed has also been filled in. By 1968 the northern reservoir is labelled as disused.

The water tower is a Grade II listed building. A building survey of the buildings on the Bath Road Reservoirs site (excluding the Station Supervisors House) was undertaken in 2013 <1>.

Sources

- (1) Unpublished document: Thames Valley Archaeological Services. 2014. Bath Road Reservoirs, Reading, Berkshire - Building Recording.
- (2) Unpublished document: CgMs Consulting. 2008. Historic Buildings Report - The Water Tower, Bath Road, Reading, Berkshire.
- (3) Newsletter: Berkshire Industrial Archaeology Group. 2009. BIAG News. No. 21.

Location

National Grid Reference

Centroid SU 70202 72844 (MBR: 163m by 252m) SU77SW Area

Administrative Areas

Non Parish Area	Reading, Reading, Berkshire
Unitary Authority	Reading, Berkshire

Address/Historic Names - None recorded

Designations, Statutes and Scorings

Associated Designations - None recorded

Other Statutes and Cross-References - None recorded

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HER Number MRM17563 **Site Name** Reading Water Works - Bath Road, Reading, Berkshire

Ratings and Scorings - None recorded

Land Use

Associated Historic Landscape Character Records - None recorded

Other Land Classes

Geology	gravel
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Related Monuments

MRM15888	Water Tower, Bath Road, Reading, Berkshire	Hierarchical
MRM16230	Victorian pump house, the waterworks site, Bath Road, Reading, Berkshire	Hierarchical
MRM16231	Station supervisor's house, the waterworks site, Bath Road, Reading, Berkshire	Hierarchical
MRM16232	Limestone boundary wall and cast iron railings, the waterworks site, Bath Road, Reading, Berkshire	Hierarchical
MRM17561	Ancillary buildings - Bath Road Reservoirs, Bath Road, Reading, Berkshire	Hierarchical

Finds - None recorded

Associated Events/Activities

ERM1571 Bath Road Reservoirs, Reading, Berkshire (Event - Survey. Ref: BRR13/109)

Associated Individuals/Organisations - None recorded

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Alan Baxter

Prepared by Susannah Homer and Reider Payne

Reviewed by Nicolas Chapple

Issued August 2017

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