

Archaeological Watching Brief
of a borehole at
**BATH SPA RAILWAY STATION,
BATH, SOMERSET.**

for
SouthGate Limited Partnership, Network Rail
and First Great Western



Report No. 2286/2010



Bristol and Region Archaeological Services

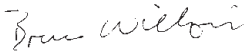

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Archaeological Watching Brief
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BATH SPA RAILWAY STATION,
BATH, SOMERSET.

Centred on
N.G.R. ST 7527 6432

Clients: SouthGate Limited Partnership, Network Rail
and First Great Western
Agent: CgMs Consulting

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<i>Date Issued:</i>	21 April 2010 

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Abbreviations

AD	Anno Domini	Km	Kilometre
aOD	Above Ordnance Datum	m	Metre
BaRAS	Bristol & Region Archaeological Services	NGR	National Grid Reference
BC	Before Christ	NMR	National Monuments Record
BCL	Bristol Central Library	OS	Ordnance Survey
c.	Circa		

NOTE

Notwithstanding that Bristol and Region Archaeological Services have taken reasonable care to produce a comprehensive summary of the known and recorded archaeological evidence, no responsibility can be accepted for any omissions of fact or opinion, however caused.

April, 2010.

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SUMMARY

An archaeological watching brief was carried out during a geotechnical borehole as part of an investigation for a new lift shaft at Bath Spa Railway Station, Bath.

The test pit and borehole revealed made ground layers thought to be associated with the construction of the railway and station buildings, a further 2.75m of possible archaeological layers and natural alluvium at approximately 4.55m below ground surface.

LIST OF ILLUSTRATIONS

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Figure 1 Site location plan, scale 1:1500

Figure 2 Plan showing study area in detail and plate locations, scale 1:100

Plates

Cover View of the entrance to the 'Goods Shed' in which the borehole was situated, looking south-east

Plate 1 Test pit during excavation, looking west

Plate 2 Core sample showing possible archaeological layer (106)

1. INTRODUCTION

- 1.1 Bristol and Region Archaeological Services (BaRAS) were commissioned by CgMs Consulting on behalf of the following parties, SouthGate Limited Partnership, Network Rail and First Great Western to undertake an archaeological watching brief during a geotechnical borehole as part of an investigation for a new lift shaft at Bath Spa Railway Station, Bath, Somerset.
- 1.2 The watching brief was commissioned to comply with a request from the Archaeological Officer for BaNES (application number 06/02656/LBA) and in accordance with a Written Scheme of Investigation prepared by Bristol and Region Archaeological Services (Bryant 2010).
- 1.3 The fieldwork was undertaken on 11 February 2010 under the supervision of Heather Hirons who also compiled this report.
- 1.4 The project archive will be deposited with the Roman Baths Museum & Pump Room under the Accession Number BATRM 2010.15 and a copy of the report will be made available to the National Monuments Record maintained by English Heritage. The project has been entered in the OASIS Online Access to the Index of Archaeological Investigations as: bristola1-72154.

2. THE SITE

- 2.1 The site is centred on NGR ST 7527 6432 (**Fig.1**) and lies in the east end of a Goods Store situated on the west side of the ground floor of Bath Spa Railway Station. The station is situated on the south side of the interchange between Manvers Street, Dorchester Street and Railway Place, approximately 50m north of a bend in the river Avon. The Goods Store in which the investigation took place (**Fig.2**) is on the north side of the west end of the main building. It is currently used as a store for two of the cafés on the station and contained large amounts of shelves and refrigeration units. The site lies at approximately 21.5m aOD.
- 2.2 Bath Spa Station is Grade II* listed and the site lies within the Bath Conservation Area and Bath World Heritage Site.
- 2.3 According to the British Geological Survey, the site lies on alluvium. The underlying solid geology comprises Jurassic clays and limestones, the latter mainly Oolite.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 3.1 Prior to the present project there have been numerous archaeological investigations within the local area, some within 100m of the site, but none on the site itself. However, most recently, a building assessment has been carried out on the site (Roper 2010). The following is a summary of the historical background taken from the building assessment (Roper 2010) and the Written Scheme of Investigation (Bryant 2010).
- 3.2 Bath Spa station was built in 1840. It was designed by I. K. Brunel but built under the superintendence of Mr Frere, resident engineer of the Bristol Division of the Great Western Railway. The station is built in the Tudor revival style. Alterations are recorded for 1897 and 1962, but minor changes to the internal layout no doubt occurred at other times as well. The platforms were originally shorter and were extended sometime in the 1890s. It is during this period that the western building of the north range of the station was constructed. The Ordnance Survey 1:500 plan of 1886 shows the north range of the station without the western addition, which is depicted on the Second Edition Ordnance Survey 1:2500 plan of 1902.

4. AIMS AND METHODOLOGY

- 4.1 The fieldwork complied with the methodology contained within the Written Scheme of Investigation (Bryant 2010). The fieldwork also followed the *Standard and Guidance for an Archaeological Watching Brief* issued by the Institute for Archaeologists (1999). The aim of the watching brief was to record any archaeological features or deposits revealed during the course of intrusive groundworks.
- 4.2 The watching brief involved the monitoring and recording of a borehole to test the ground in preparation for the possible construction of a lift. The groundworks consisted of a hand excavated test pit 0.5m x 0.5m square, dug to a depth of 1.10m, and a borehole cored with a percussion rig into the base of the test pit to a depth of 6.45m. The cores produced were approximately 0.10m in diameter and Standard Penetration Tests were also performed between each 1m length of core taken.

5. RESULTS

- 5.1 The hand excavated test pit (**Plate 1**) revealed a surface of brick setts (101), bedded in soot and poor quality concrete (102) laid on top of two layers of made ground (103 & 104). The first two cores taken from the boreholes then revealed a further layer of made ground (105), and a thick layer of sandy clay (106) (**Plate 2**) containing a single sherd of 18th-19th century pottery, which was not retained. At this point a large piece of concrete rubble from the hand excavated test pit fell into the borehole and blocked the hole, this was subsequently removed, but resulted in the loss of the core from between 3.20m and 4.00m below ground surface. Below 4m the cores revealed a layer that appeared to be redeposited alluvium (107), a layer of compressed organic matter (108), a possible paeleo-channel (109) and the natural alluvium (110).
- 5.2 It is the author's opinion that the exact depths should be viewed with a certain amount of latitude. The disruption caused by the blockage could result in misleading depths below the obstruction. Also, the nature of the percussion rig could compress some softer deposits leading to a misleading depth reading, and the process of the Standard Penetration Test also significantly disrupts the top 0.5m of each core sample.
- 5.3 The full details of the deposits encountered are contained in **Appendix 2**.

6. CONCLUSION

- 6.1 The test pit and bore hole identified approximately 1.80m of made ground layers below the brick surface of the Goods Store, 2.75m of possible archaeological layers and natural alluvium at approximately 4.55m below ground surface. As the window viewed was so narrow the exact nature of these deposits could not be ascertained, although it is assumed that the made ground layers are connected with the construction of the railway and station buildings.

7. PROJECT TEAM

- 7.1 The fieldwork was undertaken by Heather Hirons who also produced this report. The illustrations were prepared and the report compiled by Ann Linge. The archive was compiled and prepared for deposition by Heather Hirons. The project was managed by Bruce Williams.

8. BIBLIOGRAPHY AND SOURCES CONSULTED

Published Works

- DoE, 1990 *Archaeology and Planning* (Planning Policy Guidance Note 16)
- English Heritage, 1991 *Management of Archaeological Projects*
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Railway Station, Bath (BaRAS privately circulated document)
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Marsh, R., 2010 *Somerset* (Constructive Evaluation Limited Report: 09.10.6168,
privately circulated client report)
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Railway Station, Bath (BaRAS report: 2291/2010, privately circulated
client report)

9. ACKNOWLEDGMENTS

BaRAS would like to thank Sisk, Oxford Architects and Constructive Evaluation Ltd for their assistance and co-operation.

APPENDIX 1: Policy Statement

This report is the result of work carried out in the light of national and local authority policies.

NATIONAL POLICIES

Statutory protection for archaeology is enshrined in the Ancient Monuments and Archaeological Areas Act (1979), amended by the National Heritage Act, 1983. Nationally important sites are listed in the Schedule of Ancient Monuments (SAM). Scheduled Monument consent is required for any work that would affect a SAM.

GOVERNMENT POLICY GUIDANCE

Planning Policy Guidance Note 15: Planning and the Historic Environment (1994) and Planning Policy Guidance Note 16: Archaeology and Planning (1990) have been replaced (23 March 2010) by Planning Policy Statement 5: Planning for the Historic Environment (2010) which sets out the Government's national policies on conservation of the historic environment. Those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are called heritage assets.

Of particular relevance within the Planning Policy Statement are:

Policy HE6: Information Requirements for Applications for Consent Affecting Heritage Assets

HE6.1 Local planning authorities should require an applicant to provide a description of the significance of the heritage assets affected and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the relevant historic environment record should have been consulted and the heritage assets themselves should have been assessed using appropriate expertise where necessary given the application's impact. Where an application site includes, or is considered to have the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where desk-based research is insufficient to properly assess the interest, a field evaluation.

Policy HE9: Additional Policy Principles Guiding the Consideration of Applications for Consent Relating to Designated Heritage Assets

HE9.1 There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, grade I or II* listed buildings and grade I and II* registered parks and gardens, World Heritage Sites, should be wholly exceptional.

Policy HE12: Policy Principles Guiding the Recording of Information Related to Heritage Assets

HE12.3 Where the loss of the whole or a material part of a heritage asset's significance is justified, local planning authorities should require the developer to record and advance understanding of the significance of the heritage asset before it is lost, using planning conditions or

obligations as appropriate. The extent of the requirement should be proportionate to the nature and level of the asset's significance. Developers should publish this evidence and deposit copies of the reports with the relevant historic environment record. Local planning authorities should require any archive generated to be deposited with a local museum or other public depository willing to receive it. Local planning authorities should impose planning conditions or obligations to ensure such work is carried out in a timely manner and that the completion of the exercise is properly secured.

DISTRICT POLICY

Bath & North East Somerset Local Plan including waste and minerals policies Revised Deposit Draft 2003 as approved for used for Development Control purposes contains the following policies:

Policy BH.11 – Development which would adversely affect Scheduled Ancient Monuments or any other sites of national importance, and their settings and does not preserve such sites in situ will not be permitted.

Policy BH.12 – Development which would harm important archaeological remains or their settings outside the scope of Policy BH.11 will not be permitted unless the adverse impact of the development proposal on the remains can be mitigated.

Policy BH.13 – Development which adversely affects significant archaeological remains within Bath will not be permitted unless the preservation in situ of these remains can be achieved through a detailed design and construction scheme.

A draft <http://www.bristol-city.gov.uk/ccm/content/Environment-Planning/Planning/planning-policy-documents/planning-policy-documents.en?page=2> - [internalSection2](#) Supplementary Planning Guidance, (SPG) '*Archaeology in Bath & North-East Somerset*' has recently (2004) been prepared. Its principal purpose when adopted is to supplement Policies BH.11, BH.12 & BH.13 of the existing and emerging Bath & North East Somerset Local Plan and should be read in conjunction with these.

APPENDIX 2: Context Descriptions

Context No.	Description
101	Surface; brick setts laid in soot, 0.22 x 0.11 x 0.07m in size.
102	Sub-surface; poor quality grey concrete, 0.14m thick.
103	Made ground; rubble bonded with soot and dark brown, silty, clay, 0.21m to 0.80m below the surface. A void was visible in the north side of the test pit in this context.
104	Made ground; dark brown, gravelly, sand with frequent brick rubble and stones, 0.80m to 1.20m below the surface.
105	Made ground; light brown/dark grey sand, with frequent gravel and brick rubble, 1.20m to 1.80m below the surface.
106	Firm, light brown, sandy, clay with occasional brick fragments and occasional charcoal flecks and degraded limestone fragments, 1.80m to 3.20m below the surface, one fragment of pottery was recovered from this layer – BPT 263, Bridgwater coarseware, 18th-19th century (not retained).
No recovery between 3.20m and 4.00m as concrete from the surface blocked the borehole.	
107	Redeposited alluvium; firm, dark grey/brown, sandy, silt with frequent degraded Oolitic limestone fragments and occasional small slag fragments (not retained), 4.00m to 4.45m below surface level.
108	Organic layer; black layer of compacted organic material with occasional patches of clay and occasional charcoal, 4.45m-4.50m below surface level.
109	Possible paleo-channel; light brown degraded Oolitic limestone gravel and sand, quite wet, 4.50m-4.55m below ground surface.
110	Alluvium; firm, dark blue/grey clayey silt with frequent manganese flecks, bored to a depth of 6.45m.

APPENDIX 3: Borehole Log

constructiveevaluation										BOREHOLE LOG									
Project Bath Spa Lift Feasibility										BOREHOLE No BH1									
Job No 10.6168		Date 11-02-10 11-02-10		Ground Level (m -) Unknown		Co-Ordinates ()		Sheet 1 of 1											
Contractor Constructive Evaluation Limited																			
SAMPLES & TESTS			STRATA																
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	DESCRIPTION										Geology	Instrument/Back fill	
0.50-4.50	ES	WAC				0.06	Paving (Brick)												
						0.32	Light grey probably weak Concrete.												
						0.40	Brick Rubble												
						(0.40)	Firm consistency dark brown Clay (fill).												
						0.80	(MADE GROUND)												
1.00-1.20	B					(0.40)	Loose dark brown/brown very gravelly Sand. Frequent brick, stone, rubble, occasional ceramic, glass fragments. Frequent black gravel sized deposits. Slight hydrocarbon odour.												
1.00-1.20	ES	N9				1.20	(MADE GROUND)												
1.40-1.80	D					(0.60)	Loose to medium dense generally light brown frequent dark grey black Sand. Sand is fine to coarse. Frequent gravel and cobble sized buff brick/masonry rubble. Frequent black gravel sized fragments.												
1.40-1.80	ES					1.80	(MADE GROUND)												
2.00		N9					Firm consistency (occasionally soft/occasionally stiff consistency) light brown sandy Silt/Clay. Sand is fine to coarse. Rare brick fragments. Frequent black/grey/yellow sandy silt deposits. No odour. (Reworked deposits)												
2.20-2.70	ES	D				(1.40)													
2.20-2.70	D						2.70 Pottery fragment. Late 18th Cent (Archaeologist description). Old wine bottle fragment.												
2.70-3.20						3.20	2.70 Frequent flint, possible Oolite limestone fragments. Frequent orange/brown ironisation on clay deposits												
						(0.80)	No recovery. No evidence of voiding. Loss caused by rubble/concrete material from surface in hole blocking barrel.												
4.00-4.50	D	N14				4.00													
4.00-4.50	ES	N14				(0.55)	Firm consistency dark grey mottled black/dark brown slightly gravelly slightly sandy Silt. Organic odour. Reworked deposits)												
4.60-5.00	D					4.55	4.00 - 4.50 Rare fine to coarse slag fragment. 4.50 Light brown very sandy gravel of possibly Oolitic limestone. Sample slightly wet. Appearance of some seepage.												
5.00		N13				(1.90)	Firm becoming stiff consistency dark brown dark grey slightly sandy clayey SILT. Organic odour. Frequent black fine to coarse gravel sized black mottling. (ALLUVIUM)												
5.50-6.00	D						5.50 Stiff consistency												
5.50-6.00	ES																		
6.00		N10					6.00 Becoming light grey.												
						6.45	6.40 2-3cm of water in base of hole. Possible collection from earlier seepage. End of window sample at 6.45mbgl.												
Boring Progress and Water Observations										Chiselling			Water Added		GENERAL REMARKS				
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Hand excavated trial pit from GL to 1.20mbgl. Some small groundwater seepage at 4.55mbgl.								
All dimensions in metres Scale 1:43.75			Client Sisk Rail			Method/Plant Used Dando Terrier Rig			Logged By DC										

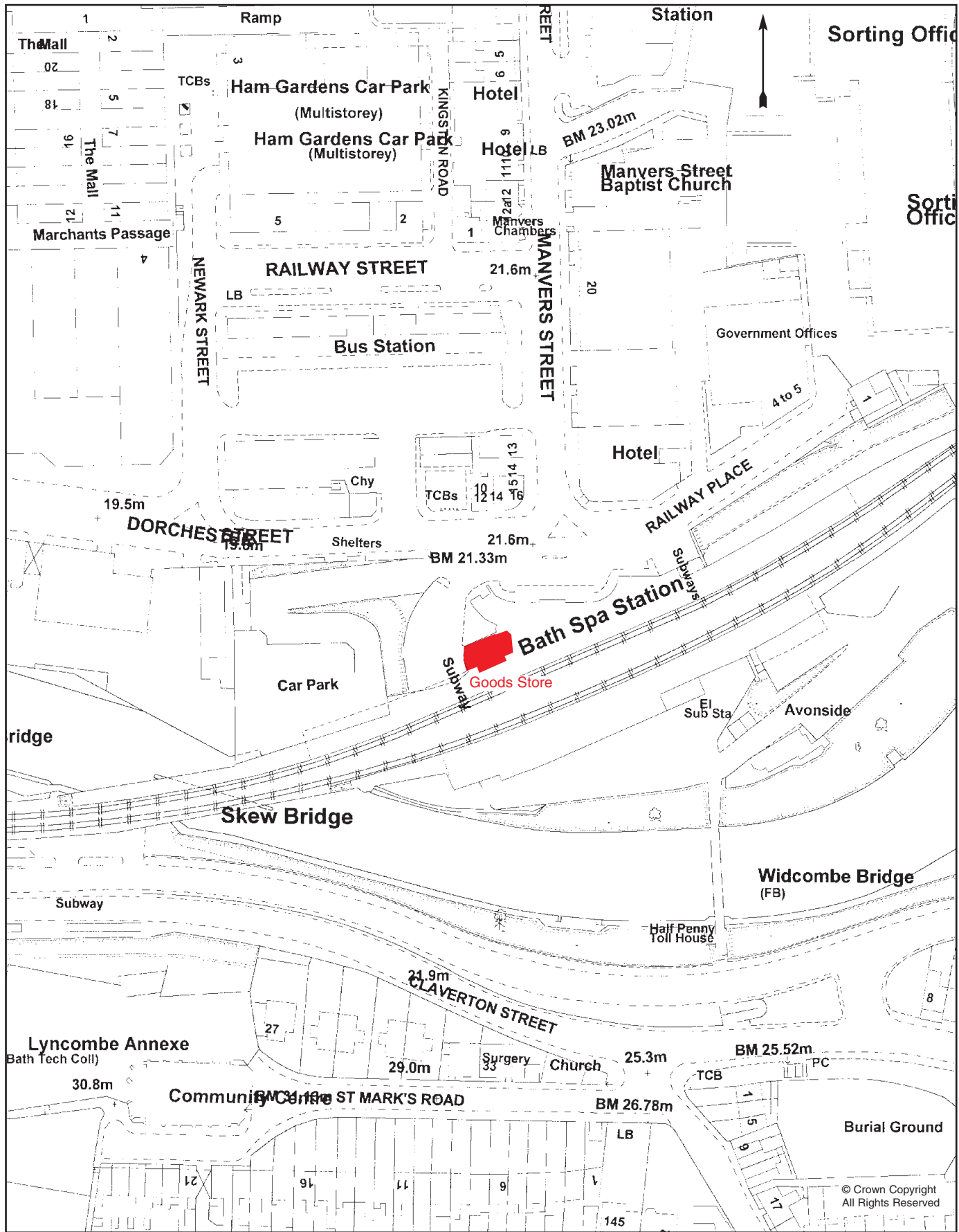
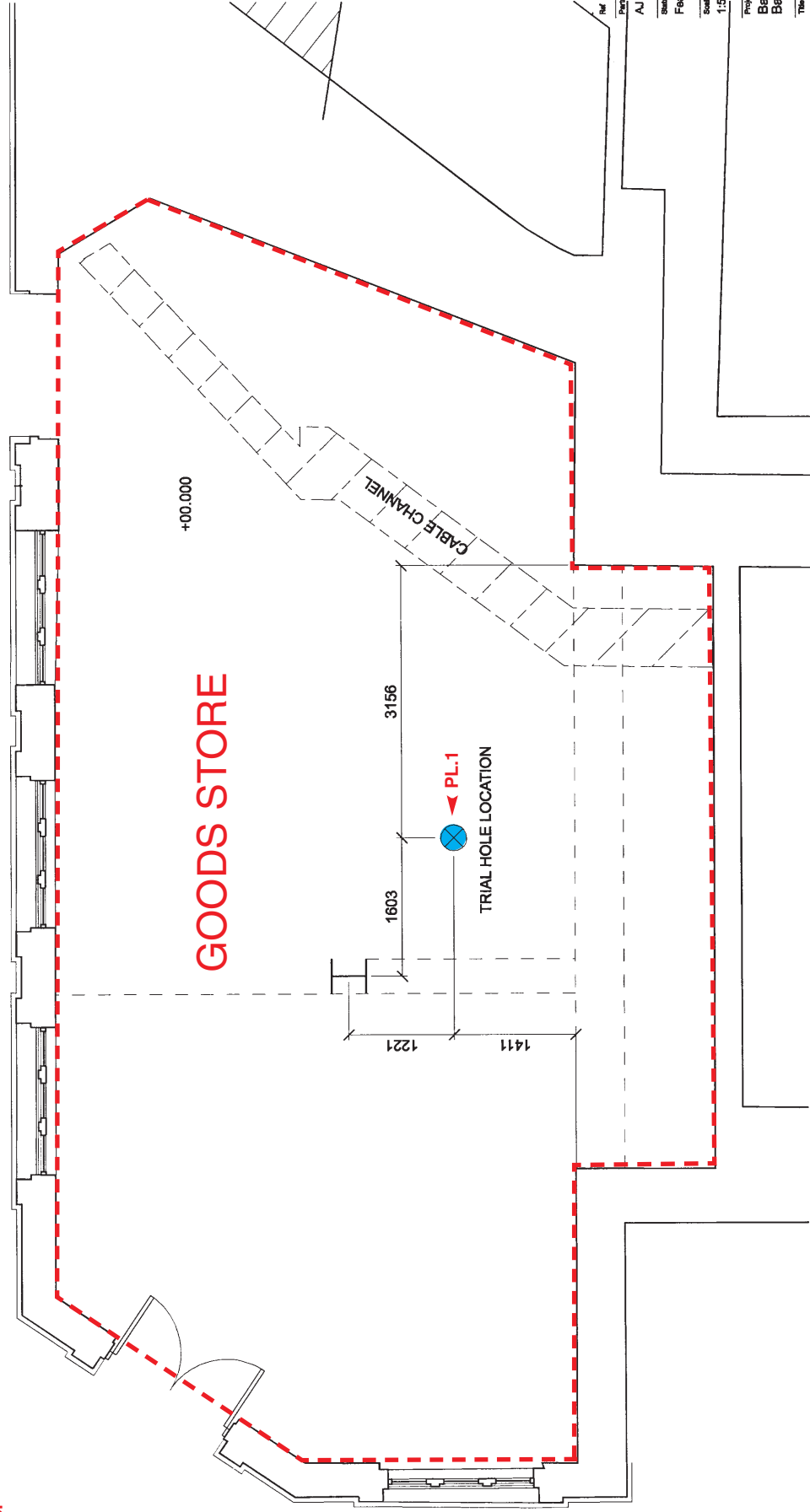


Fig.1 Site location plan, scale 1:1500

cover



Ref	Date	Revision
AJ	RdR	04.12.09

Drawn
RdR

Checked
AJ

Status
Feasibility

Scale
1:50@A3

Project
Bath Spa Train Station,
Bath Spa

Title
Trial hole location

Job No	Drawing No	Revision
09121	005	-



Fig.2 Plan showing study area in detail and plate locations, scale 1:100



Plate 1 Test pit during excavation, looking west



Plate 2 Core sample showing possible archaeological layer (106)