

**PLOTS 15 AND 16
BROADMEAD REDEVELOPMENT
BRISTOL**

ARCHAEOLOGICAL WATCHING BRIEF

For

AWW

CA PROJECT: 2282
CA REPORT: 08093

JUNE 2008


COTSWOLD
ARCHAEOLOGY



PLOTS 15 AND 16 BROADMEAD REDEVELOPMENT BRISTOL

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CA PROJECT: 2282
CA REPORT: 08093

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date	18 June 2008
issue	01

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SUMMARY

Project Name: Plots 15 and 16
Location: Broadmead Redevelopment, Bristol
NGR: ST 5955 7340
Type: Watching Brief
Date: September – November 2007
Location of Archive: To be deposited with Bristol City Museums, Galleries and Archives
Accession Number: BRSMG 2007/2
Site Code: FIB 07

An archaeological watching brief was undertaken by Cotswold Archaeology during groundworks associated with the construction of a Future Inns Hotel on plots 15 and 16, Broadmead Redevelopment, Bristol.

The roof of the River Frome culvert and one supporting buttress were encountered between 0.54m and 2.0m below present ground level. The culvert is on a north-east/south-west alignment, with a revetment wall for the earlier open river channel running parallel approximately 1.0m to the north.

1. INTRODUCTION

- 1.1 Between September and November 2007 Cotswold Archaeology (CA) carried out an archaeological watching brief for AWW (Atkins Walters Webster) in plots 15 and 16, Broadmead Redevelopment, Bristol (centred on NGR: ST 5955 7340; Fig. 1). The watching brief was undertaken to fulfil a condition attached to a planning consent for the construction of a Future Inns Hotel (Planning ref: 07/01346/M). The objective of the watching brief was to record all archaeological remains exposed during the development.
- 1.2 The watching brief was carried out in accordance with a detailed Written Scheme of Investigation (WSI) produced by CA (2007a) and approved by Bob Jones, Bristol City Council Archaeologist. The fieldwork also followed the *Standard and Guidance for an Archaeological Watching Brief* issued by the Institute of Field Archaeologists (2001) and the *Management of Archaeological Projects* (English Heritage 1991).

The site

- 1.3 The site of the proposed hotel lies on the south-eastern edge of the Broadmead Redevelopment site in central Bristol, at the junction of Wellington Road and St Matthias Park (Fig. 2). The site lies at approximately 10.7m AOD.
- 1.4 The site encompasses approximately 0.3ha and comprised an open-air car park and road system prior to development.
- 1.5 The underlying solid geology of the area is mapped as Redcliff Sandstone of the Triassic era (BGS 1984), but natural substrate was not observed during the watching brief.

Archaeological background

- 1.6 The whole of this site has been the subject of an archaeological desk-based assessment (DBA) and a series of fieldwork projects.
- 1.7 The DBA concluded that the area of the proposed hotel was open land until the early part of the 18th century, when the expansion of the city centre eastwards began in

earnest (BaRAS 2000, 5-6). Archaeological monitoring in the vicinity of the proposed hotel has revealed the remains of buildings that were in existence by at least the middle of the 18th century (B. Jones, pers. comm.). This work also revealed a boundary ditch that may be on the line of the former medieval county boundary. Another feature that is known to lie within the site of the proposed hotel is the culverted course of the River Frome. This lies beneath the southern side of Wellington Road. Engineering documents from the late 19th century show the form of the culvert. They depict supporting buttresses spaced approximately 3.8m centre to centre, as well as what appear to be existing revetment walls for the open channel of the Frome (D. Grant, pers. comm.).

- 1.8 An archaeological watching brief was carried out earlier in 2007 (CA 2007b) during the excavation of geotechnical pits (Fig.2). The only archaeological feature observed was a concrete floor of a cellar 2.4m below the present ground level. The remaining deposits encountered represent the modern backfilling of cellars or modern dumping and ground make-up in areas that had been truncated during the development of the area in the 19th-20th century.

Methodology

- 1.9 The fieldwork followed the methodology set out within the WSI (CA 2007a). An archaeologist was present during the excavation of five exploratory trenches (trenches 1-5) and subsequent ground reductions (trench 6) (Fig. 2).
- 1.10 Where archaeological deposits were encountered written, graphic and photographic records were compiled in accordance with CA Technical Manual 1: *Fieldwork Recording Manual* (2007).
- 1.11 The archive from the watching brief is currently held by CA at their offices in Kemble. The site archive will be deposited with Bristol City Museum, Galleries and Archives under accession number BRSMG 2007/2. A summary of information from this project, set out within Appendix C, will be entered onto the OASIS online database of archaeological projects in Britain.

2. RESULTS (FIGS 3-5)

- 2.1 This section provides an overview of the results from the watching brief; detailed summaries of the recorded contexts and finds are to be found in Appendices A and B respectively. None of the artefactual material has been retained due to its relatively recent date. Details of the relative heights of the principal deposits and features expressed as metres Above Ordnance Datum (m AOD) appear in Appendix C.

Trench 1

- 2.2 The roof of the River Frome culvert, 107, was exposed at the southern end of trench 1 at 0.9m below present ground level (bppl). A stone drain, 106, was observed in the section at the northern end of the trench at 1.5m bppl. It was cut into a series of make-up layers, 101-105, that butted the culvert wall. Layer 101 was cut by modern services 108 which were overlain by tarmac surface 100.

Trench 2

- 2.3 Within trench 2 revetment wall 204 for the original open channel of the River Frome. The River Frome was observed at a depth of 2.0m bppl. The River Frome culvert 205, and associated buttress 206 were exposed at the south-west end of trench 2 at approximately 2.5m bppl (Fig.5).
- 2.4 These features were overlain by 1.67m of ground make-up deposits 201-203. These deposits contained pottery and other artefacts of 18th to 20th-century date. Cut into these deposits were modern services 200.

Trench 3

- 2.5 The roof of the River Frome culvert, 312, was exposed approximately 2.0m bppl at the southern end of trench 3. Approximately 1.0m north of this was the revetment wall 313 from the open channel of the River Frome.
- 2.6 The culvert and revetting walls were overlain by 11 layers of ground make-up 301-311, which were sealed by a layer of gravel 300.

Trench 4

- 2.7 The roof of the River Frome culvert 402 was exposed 2.0m bpgl at the southern end of the trench. Running parallel to this on its northern side was the revetment wall for the earlier open channel 404. The area between these two structures was filled by silty sand deposit 403 containing a high proportion of stone fragments. This was cut into by modern services 401 which were overlain by a gravel bedding layer 400.

Trench 5

- 2.8 The roof of the River From culvert 507 was exposed 0.54m bpgl. This was covered by a five make-up layers, 502-506, which together had a combined thickness of 0.45m. Overlying these deposits was modern bedding layer 501 for tarmac surface 500.

Trench 6

- 2.9 A series of rubble, sand and clay deposits 602-5 were uncovered to a depth of 3.6m bpgl. These layers contained modern pottery that was not retained. They were sealed by crushed sandstone 601 and tarmac 600.

3. DISCUSSION

- 3.1 The roof of the River Frome culvert was exposed in all six exploratory trenches along with one supporting buttress in trench 2. From this it is possible to determine that the culvert was constructed on a north-east/south-west alignment as recorded on the 1st edition Ordnance Survey mapping of 1880. It was built with roughly hewn sandstone blocks, which were unevenly coursed using a black sandy mortar.
- 3.2 In trenches 3 and 4 a revetment wall was exposed parallel to the culvert, approximately 1.0m further northwards. This was built with roughly hewn unevenly coursed sandstone blocks using a light grey sandy mortar. A revetment wall is

marked on the 1st edition Ordnance Survey map and would suggest that the open channel of the Frome was reveted prior to the construction of the culvert.

- 3.3 As the exploratory trenches were only excavated to locate the position of the culvert so that locations for the concrete piles associated with the development could be determined, only the roof of the River Frome culvert and one buttress was exposed. Although the trenches have shown the orientation of this section of the culvert, it has not been possible to ascertain the methods used to construct the culvert, nor the frequency of buttresses.
- 3.4 The ground reduction in the area of the new build did not reveal any features of archaeological significance.

4. CA PROJECT TEAM

Fieldwork was undertaken by Katharine Aston and Andrew Loader. The report was written by Katharine Aston. The illustrations were prepared by Jemma Elliot. The archive has been compiled by Katharine Aston, and prepared for deposition by Kathryn Price. The project was managed for CA by Richard Young.

5. REFERENCES

BaRAS (Bristol and Region Archaeological Services) 2000 *Archaeological Desktop Evaluation of the Broadmead Redevelopment site, Bristol, unpublished typescript report*, BaRAS no. **727/2000**

BGS (British Geological Survey) 1984 *Bristol, England and Wales Sheet 264, Solid and Drift Geology, 1:50,000*

CA (Cotswold Archaeology) 2007a *Plots 15 and 16, Broadmead Redevelopment, Bristol: Written Scheme of Investigation for an Archaeological Watching Brief*

CA (Cotswold Archaeology) 2007b *Plots 15 and 16, Broadmead Redevelopment, Bristol: Archaeological Watching Brief*, CA Typescript Report No. **07021**

APPENDIX A: CONTEXT DESCRIPTIONS**Trench 1**

No.	Type	Description	Length (m)	Width (m)	Depth (m)
100	Layer	Tarmac surface			0.15
101	Layer	Dark reddish brown silty sand with ceramic building material (cbm)			0.26
102	Layer	Dark blackish brown silty sand with ceramic building material and stone			0.16
103	Layer	Mid brownish red silty sand with stones			0.22
104	Layer	Dark brownish black silty sand with stone and crushed mortar			0.23
105	Layer	Mid blackish brown clayey silty sand with ceramic building material and stones			>0.9
106	Masonry	Stone drain			
107	Wall	Stone culvert	>1.0	>1.0	
108	Cut	Cut for modern services		1.90	0.80
109	Fill	Fill of 108		1.90	0.80

Trench 2

No.	Type	Description	Length (m)	Width (m)	Depth (m)
200	Layer	Electricity cables			0.20
201	Layer	Light red sandy silt			0.24
202	Layer	Light greyish white sandy silt			0.63
203	Layer	Mid brown silty clay			0.80
204	Wall	River Frome wall	>0.50	0.50	0.14
205	Wall	River Frome culvert			
206	Wall	Culvert buttress			

Trench 3

No.	Type	Description	Length (m)	Width (m)	Depth (m)
300	Layer	Gravel bedding for hard standing			
301	Layer	Mid orangey brown sandy silt			
302	Layer	Mid reddish brown sandy silt			
303	Layer	Dark blackish brown sandy clay			
304	Layer	Mid orangey brown sandy silt			
305	Layer	Stone and crushed mortar in mid brown clayey sand matrix			
306	Layer	Mid brownish red silty clay			
307	Layer	Stoney layer in brownish silty clay matrix			
308	Layer	Mid brownish red silty clay			
309	Layer	Mid brown sandy clay layer			
310	Layer	Light brownish grey sandy clay			
311	Layer	Mid brown silty clay			
312	Wall	Culvert			
313	Wall	River wall			

Trench 4

No.	Type	Description	Length (m)	Width (m)	Depth (m)
400	Layer	Gravel bedding			0.20
401	Fill	Modern services			1.80
402	Wall	Culvert			
403	Layer	Stoney layer between 402 and 404			
404	Wall	River wall			

Trench 5

No.	Type	Description	Length (m)	Width (m)	Depth (m)
500	Layer	Tarmac surface			0.08
501	Layer	Bedding for 500			0.14
502	Layer	Dark grey gritty sand			0.07
503	Layer	Mid grey brown sand			0.06
504	Layer	Black ashey layer with mortar fragments			0.08
505	Layer	Mid grey sand mortar			0.43
506	Layer	Mid orange sandy clay			0.20
507	Masonry	Culvert roof			

Trench 6

No.	Type	Description	Length (m)	Width (m)	Depth (m)
500	Layer	Modern tarmac. 0.1m deep.			0.1
501	Layer	Modern crushed sandstone. 0.2m deep.			0.2
502	Layer	Grey clay with factory made brick fragments. 1m deep.			1.0
503	Layer	Grey clay with rare clay pipe fragments. 0.4m deep.			0.4
504	Layer	Red sand. 0.3m deep.			0.3
505	Layer	Demolition rubble. To limit of excavation at 3.6m BPGL			3.6

APPENDIX B: THE FINDS

Small quantities of pottery, clay tobacco pipes and glass were recovered from Trench 2. The earliest pottery present was a sherd from a yellow slipware press moulded plate, which is dateable to the 18th century. The remainder includes transfer printed china, English Stoneware and hand-painted china, all of 19th century or later dating.

Due to its relatively recent dating, none of the artefactual material has been retained.

Finds Concordance

Context	Artefact type	Count	Weight (g)	Spot-date
201	Pottery: transfer print china, English stoneware, hand painted china, yellow slipware	7	236	C19–C20
	Clay tobacco pipes; stems, moulded bowl	6	22	
	Glass; bottles	2	68	

APPENDIX C: LEVELS OF PRINCIPAL DEPOSITS AND STRUCTURES

Levels are expressed as metres below current ground level and as metres Above Ordnance Datum (AOD), and have been provided by the client AWW.

	Trench 1	Trench 2	Trench 3	Trench 4
Current ground level	0.00m (10.71m)	0.00m (10.66m)	Approx. 0.00m (10.70m)	Approx. 0.00m (10.70m)
Top of River Frome culvert	0.91m (9.80m)	1.54m (9.12m)	Approx. 1.78m (8.92m)	Approx. 1.88m (8.82m)
Top of culvert buttress	n/a	2.84m (7.82m)	n/a	n/a
Top of revetment wall	n/a	1.40m (8.26m)	Approx. 1.24m (8.46m)	n/a
Limit of excavation	2.00m (8.71m)	4.36m (6.30m)	Approx. 4.70m (6.00m)	Approx. 3.55m (7.15m)

Upper figures are depth below modern ground level; lower figures in parentheses are metres AOD.

APPENDIX D: OASIS REPORT FORM

PROJECT DETAILS		
Project Name	Plots 15 and 16, Broadmead development	
Short description (250 words maximum)	<p>An archaeological watching brief was undertaken by Cotswold Archaeology during groundworks associated with the construction of a Future Inns Hotel on plots 15 and 16, Broadmead Redevelopment, Bristol.</p> <p>The roof of the River Frome culvert and one supporting were encountered between 0.54m and 2.0m below present ground level. The culvert is on a north-east/south-west alignment, with a revetment wall for the earlier open river channel running parallel approximately 1.0m to the north.</p>	
Project dates	September – November 2007	
Project type (e.g. desk-based, field evaluation etc)	Archaeological watching brief	
Previous work (reference to organisation or SMR numbers etc)	<p>Archaeological watching brief carried out by CA 2007</p> <p>CA (Cotswold Archaeology) 2007 <i>Plots 15 and 16, Broadmead Redevelopment, Bristol: Archaeological Watching Brief</i> CA Typescript Report No. 07021</p>	
Future work	Unknown	
PROJECT LOCATION		
Site Location	Plots 15 and 16, Broadmead Redevelopment, Bristol	
Study area (M ² /ha)	0.3ha	
Site co-ordinates (8 Fig Grid Reference)	ST 5955 7340	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Brief originator	Bristol City Council	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Richard Young	
Project Supervisor	Katharine Aston	
PROJECT ARCHIVES		
	Intended final location of archive (museum/Accession no.)	Content (e.g. pottery, animal bone etc)
Physical	n/a	n/a
Paper	Bristol City Museum, Galleries and Archives	Trench sheets, photograph registers
Digital	Bristol City Museum, Galleries and Archives	Digital photographs
BIBLIOGRAPHY		
<p>CA (Cotswold Archaeology) 2008 <i>Plots 15 and 16, Broadmead Redevelopment, Bristol: Archaeological Watching Brief</i> CA Typescript Report No. 08093</p>		



COTSWOLD ARCHAEOLOGY

PROJECT TITLE

**Future Inns Hotel, Plots 15 & 16,
Broadmead Redevelopment, Bristol**

FIGURE TITLE

Site location plan

DRAWN BY

JE

SCALE

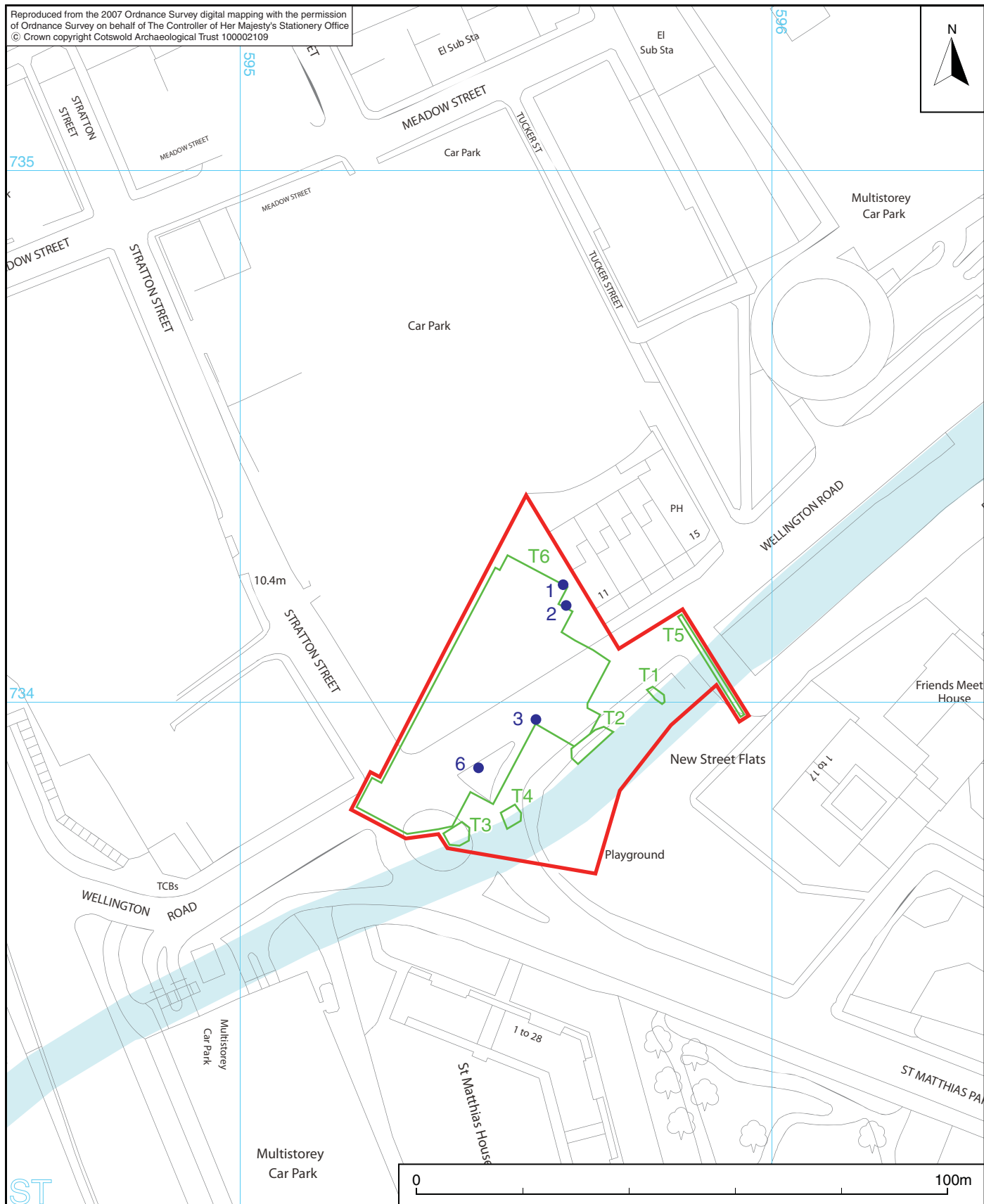
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PROJECT NO.

2282

FIGURE NO.

1



- site
- observed groundworks
- culvert



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PROJECT TITLE

**Future Inns Hotel, Plots 15 & 16,
Broadmead Redevelopment, Bristol**

FIGURE TITLE

**The site, showing location of
groundworks**

DRAWN BY

JE

SCALE

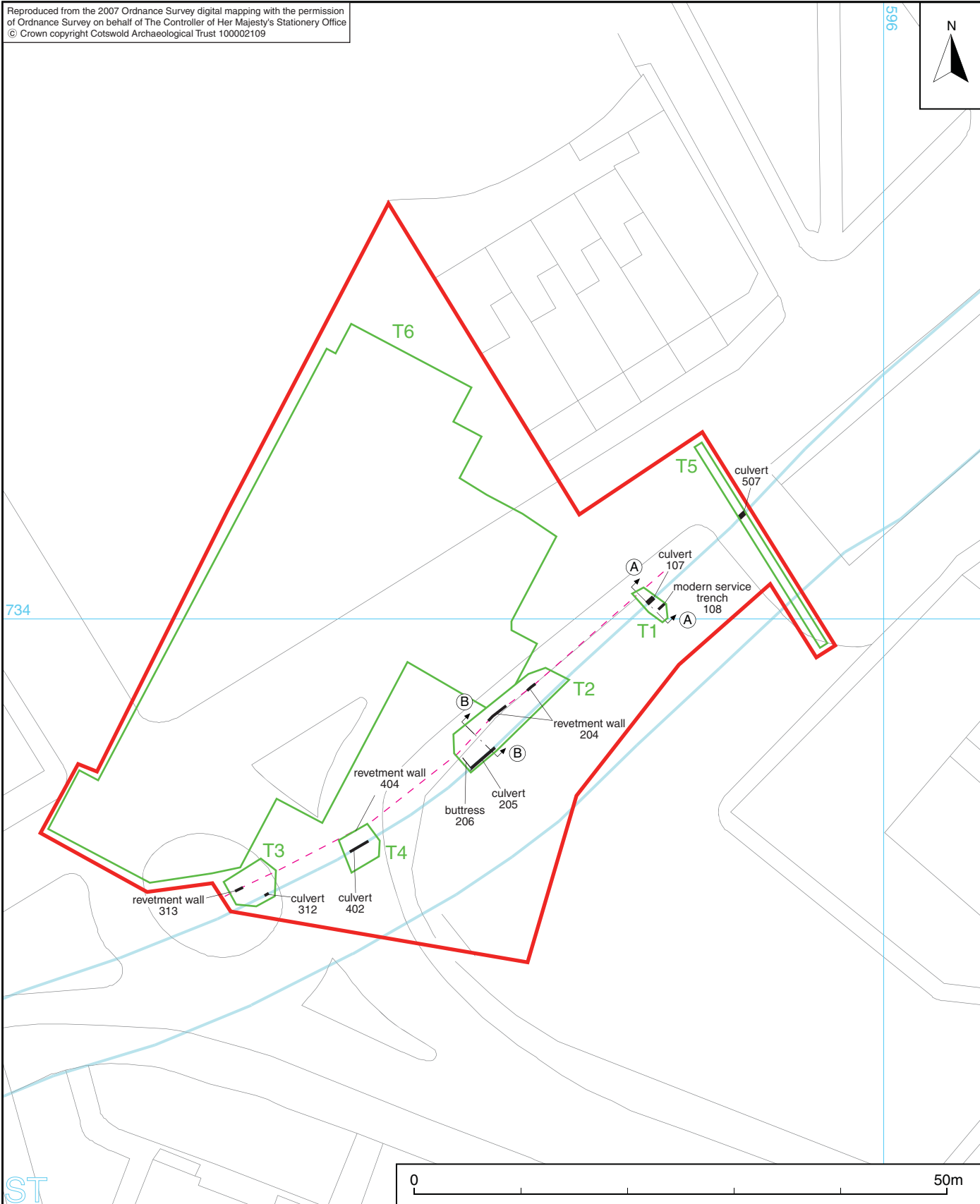
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PROJECT NO.

2282

FIGURE NO.

2



- site
- trench showing archaeological feature
- projected line of revetment wall
- culvert



COTSWOLD ARCHAEOLOGY

PROJECT TITLE

**Future Inns Hotel, Plots 15 & 16,
Broadmead Redevelopment, Bristol**

FIGURE TITLE

**The site, showing location of
culvert and river walls**

DRAWN BY

JE

SCALE

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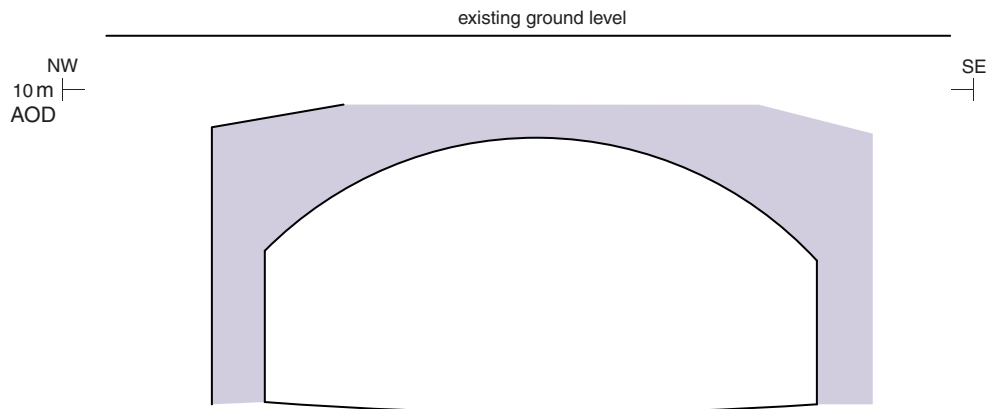
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2282

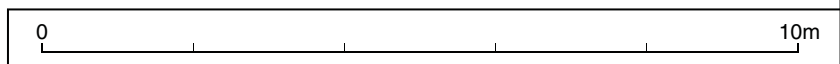
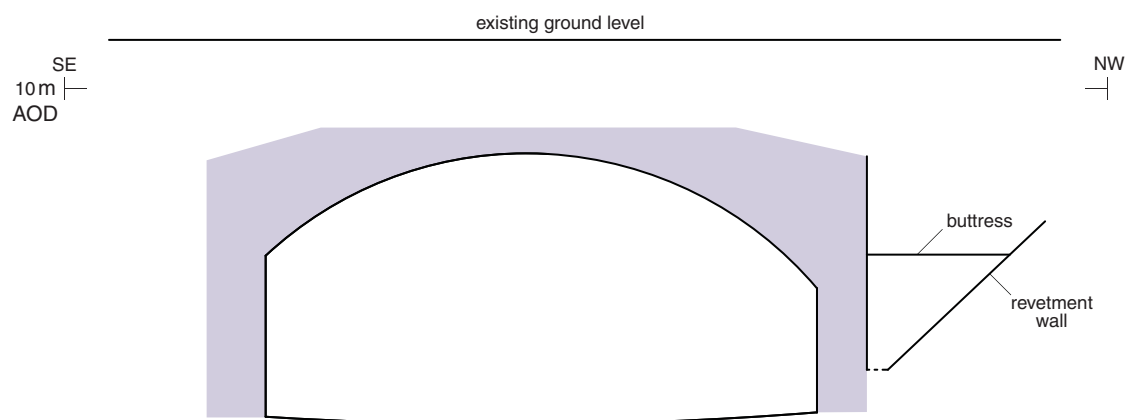
FIGURE NO.

3

Trench 1: Representative section AA of River Frome Culvert



Trench 2: Representative section BB of River Frome Culvert



culvert wall



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PROJECT TITLE

Future Inns Hotel, Plots 15 & 16,
Broadmead Redevelopment, Bristol

FIGURE TITLE

Representative sections

DRAWN BY

JE

SCALE

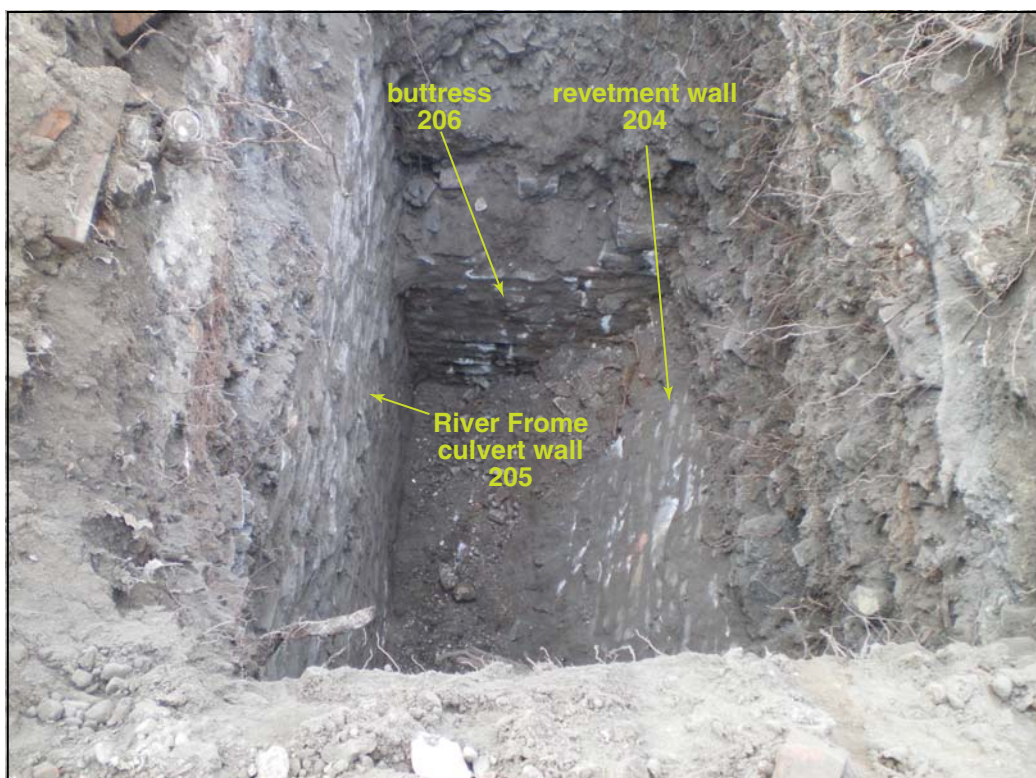
1:100@A4

PROJECT NO.


2282

FIGURE NO.

4



6

6 River Frome wall, culvert and buttress looking south-west	 COTSWOLD ARCHAEOLOGY			
	PROJECT TITLE Future Inns Hotel, Plots 15 & 16, Broadmead Redevelopment, Bristol			
	FIGURE TITLE Photograph			
	DRAWN BY	SCALE	PROJECT NO.	FIGURE NO.
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