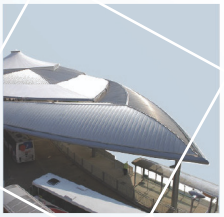
NPS GROUP
Property Consultants
NAU Archaeology

Report № 1193

An Archaeological Watching Brief on an Anglian Water pipeline, King Street, Norwich (Amended)

NHER 44329 N



Ben Hobbs

July 2008

BAU 1278

REGISTERED IFA ORGANISATION

www.nps.co.uk

NAU ARCHAEOLOGY PROJECT CHECKLIST		
Project overseen by	David Whitmore	
Draft completed	Ben Hobbs	22/04/2008
Graphics completed	Michael Feather	06/05/2008
Edit completed	Richard Hoggett	24/06/2008
Signed off	Andy Hutcheson	27/06/2008
Amended edit	Richard Hoggett	11/07/2008
Signed off	Andy Hutcheson	14/07/2008

NAU Archaeology
Scandic House
85 Mountergate
Norwich
NR1 1PY

T 01603 756150 F 01603 756190 E andy.hutcheson@nps.co.uk www.nps.co.uk www.nau.org.uk

Contents

Figures

Plates

Location:	King Street, Norwich
District:	Norwich
Grid Ref.:	TG 23682 07865 to TG 23947 07596
HER No.:	44329 N
Dates of Fieldwork:	3–7, 10–12, 24–28 April, 10–15 May 2006

Summary

An archaeological watching brief was undertaken to monitor the excavation of a trench for a new water main along part of King Street in Norwich. This included excavation through an area where the medieval King Street gate once stood. During the watching brief the probable cut of the city wall was observed in the pipe trench, although this had been previously robbed of any remaining masonry. A number of Victorian brick culverts were observed within the trench. Two late post-medieval or modern rubbish pits were also observed in section. No artefacts of archaeological interest were recovered from the trench.

1.0 Introduction

The watching brief was carried out to monitor to a programme of work to replace water main pipes and was commissioned by Anglian Water in response to a brief from Norfolk Landscape Archaeology (NLA Ref. EJR 03/04/06). The groundworks were approximately 350m long and ran along the south-eastern end of King Street (Figs 1 and 2). This street was a major eastern thoroughfare into medieval Norwich and the pipeline route passed across the location of the King Street gate, one of twelve medieval entrances that once pierced the city wall.

The site archive is currently held by the Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards.

2.0 Geology and Topography

The area under observation lies within the south-eastern corner of the walled city, with the valley of the River Wensum to the north. To the south-west is a chalk ridge running north-west–south-east, along which runs Ber Street. The drop from this ridge down to King Street is largely the result of medieval and post-medieval chalk mining and later terracing. The spoil from this activity has been utilised to build up the eastern side of King Street and reclaim land on the river foreshore (Percival 2003).

The area occupies a boundary between glacial Anglian river gravels and more geologically recent alluvial sand deposits (Funnell 2005). The thickness of the deposits which cover the underlying natural Upper Chalk varies from relatively thin in the area by the river to relatively thick on the upper Ber Street ridge.

The length of the pipeline appeared to be well drained and the natural chalk was exposed at a relatively shallow depth. Above the chalk was an average depth of 0.6m of flint and chalk rubble make-up underlying the road surface. The stretch of the pipe trench observed was located at a height between 7.0m and 7.6m OD.

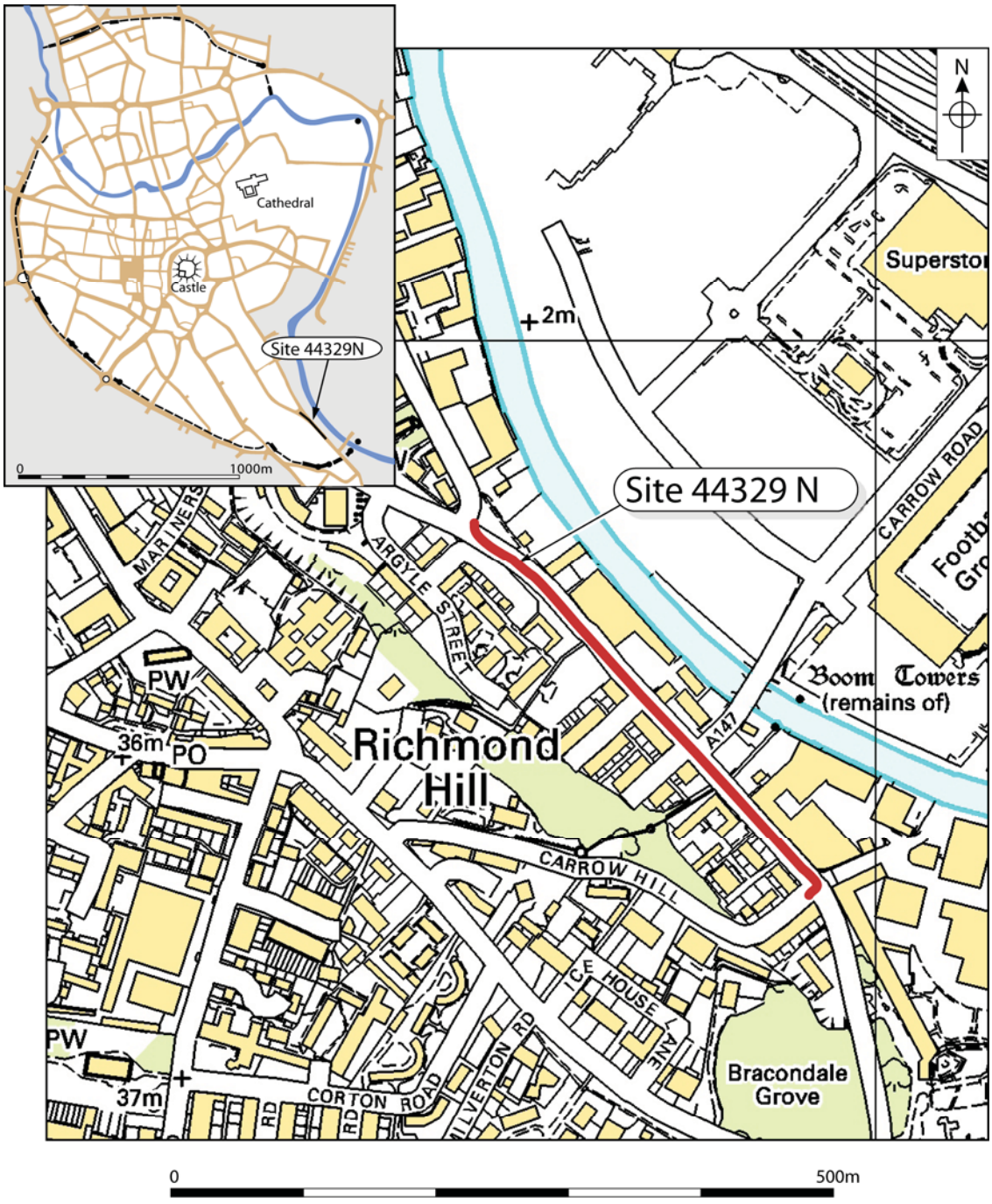


Figure 1. Site location. Scale 1:5,000

3.0 Archaeological and Historical Background

Recent excavations in Norwich have shown evidence for activity in the Upper Palaeolithic and Neolithic periods both on the eastern side of the Wensum valley (Adams 2003) and in the area of the Riverside Development (Wiltshire and Emery 2000). Despite the presence of the Roman regional capital *Venta Icenorum* 5km to the south of the city there is little primary evidence for Romano-British settlement in Norwich, apart from sparse scatters of pottery thought to have been caused by manuring. Finds of Roman pottery and building material have been made at 70 King Street (Shelley 1997) and Dragon Hall (Shelley 1998b). These were recovered from Anglo-Saxon deposits and may indicate that King Street had been a Roman road leading from *Venta Icenorum,* although there is no further evidence to support this. Recent finds of unabraded pottery from Old Barge Yard, off King Street, may prompt a re-assessment of potential Romano-British settlement in this area (Percival and Shelley 2003).

No evidence for Early or Middle Saxon settlement has been found in the King Street area, although Middle Saxon inhumations have been located beneath Norwich castle, implying the presence of an 8th- or 9th-century settlement in the vicinity (Shepherd-Popescu, forthcoming).

Late Saxon settlement patterns along the southern half of King Street may be partly recreated from the grouping of 10th–11th-century churches, the location of which may indicate the presence of holdings within which each church was established. Any expansion of these separate holdings, or early manifestations of parishes, within the space available would have necessitated a conjunction of individual settlements (Shelley 2005, 179).

In addition to the patterns of churches there is also evidence for earth-fast timber buildings dating from between *c*.975–1025 uncovered during excavations at Dragon Hall (Shelley 2005). These have been compared with the more established form of sunken-featured/cellared buildings within the recognised boundaries of the defended Anglo-Saxon town, such as those found at castle and Greyfriars sites, and may have been semi-rural and less sophisticated (Shelley 2005, 180).

The Anglo-Saxon ditch discovered bisecting King Street at the junction of Mountergate and Stepping Lane has yet to be dated, although it might date either from the early to middle 10th century or from the later 10th/11th centuries, both periods of the Danish invasions (Ayers 2004, 11). If the former, this would imply that the southern King Street area lay outside the town's defensive ditch and was essentially a suburb of the main town.

Evidence was found for Late Saxo-Norman occupation in the King Street area during an evaluation at Read's Flour Mill (NHER 26467; Hutcheson 1998). Early Norman buried soils have also been located at an excavation at Cannon Wharf (NHER 26464) lying close to the street frontage (Shelley 1998a).

Despite the presence of the possible pre-conquest churches of St Clement and St Etheldreda there appears to be little indication that major expansion occurred in the area south of Mountergate before 1100. Development extended along King Street from the centre of the Saxo/Norman settlement of Norwich only in the early 12th century, presumably accumulating the early settlements in the process.

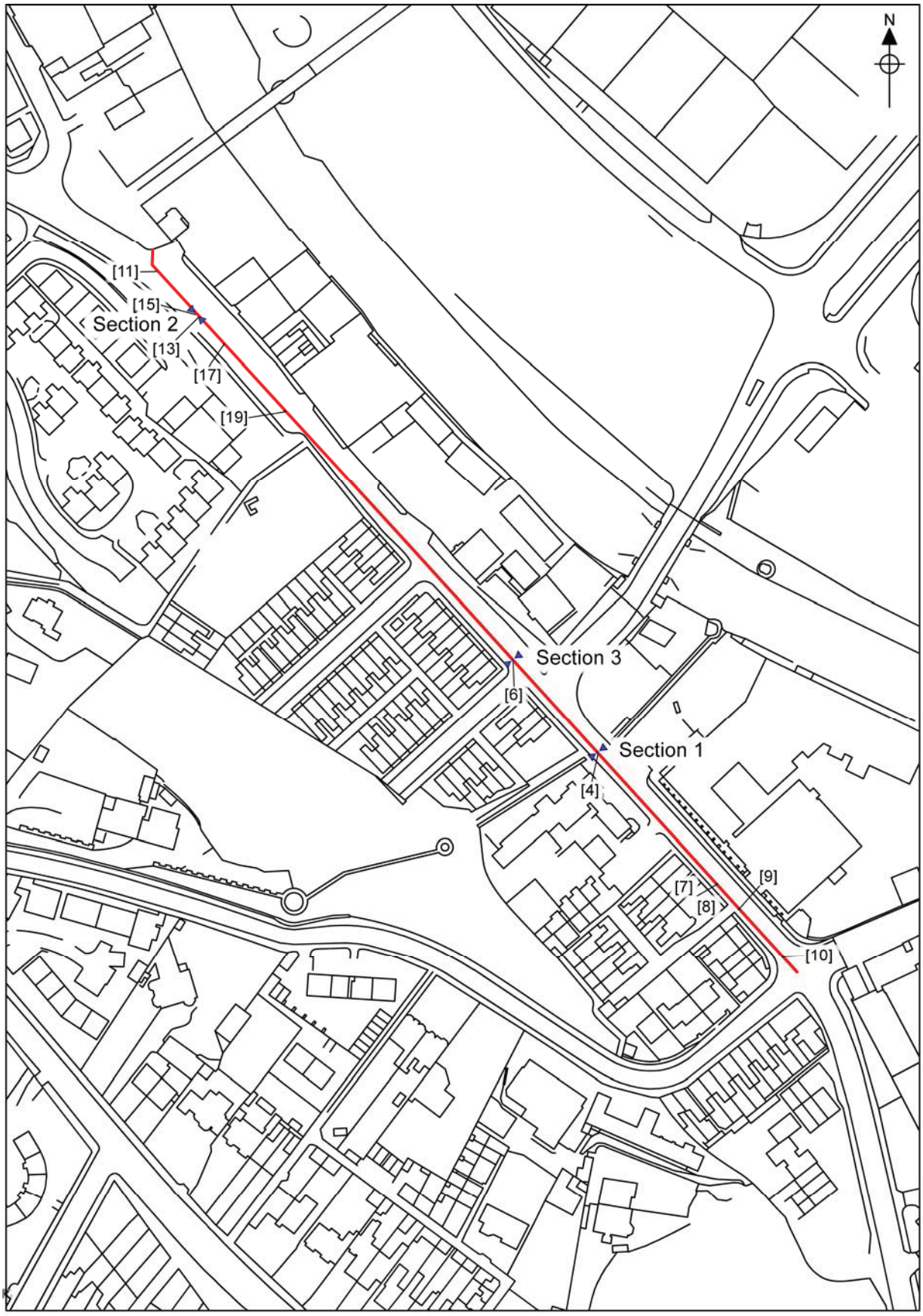


Figure 2. Trench plan. Scale 1:2,000

After this date, however, settlement appears to have escalated, probably due to the established river frontage and wharf facilities, and included several fine stone houses along King Street. The earliest of these is that of Jurnet, or 'The Music House', built *c.*1175 and still largely extant (Ayers 2003). The area to the south-east of King Street subsequently became a port district which remained important until the early 1990s.

4.0 Methodology

The objective of this watching brief was to record any archaeological evidence revealed during the excavation of a single pipe trench along a portion of King Street in the area of Carrow Bridge (Figs 1 and 2). The Brief required that an archaeologist be present during the various stages of groundworks along the route of the pipeline.

The trench was excavated by a JCB-type mechanical excavator using a 0.50m-wide toothed bucket. The trench was dug along the south-western side of the street, following the edge of the pavement, and eventually ran from the corner of King Street/Carrow Hill to a point where King Street meets Rouen Road. Here the trench cut diagonally across the street towards the existing water main (Fig. 2).

The methodology adopted was as follows: once the correct trench depth was reached shingle was deposited in the base of the trench. The pipe, having been cut to the correct length, was laid in the base of the trench, which was then backfilled. Excavation then commenced further along the route.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

All archaeological features and deposits were recorded using NAU Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

No environmental samples were taken.

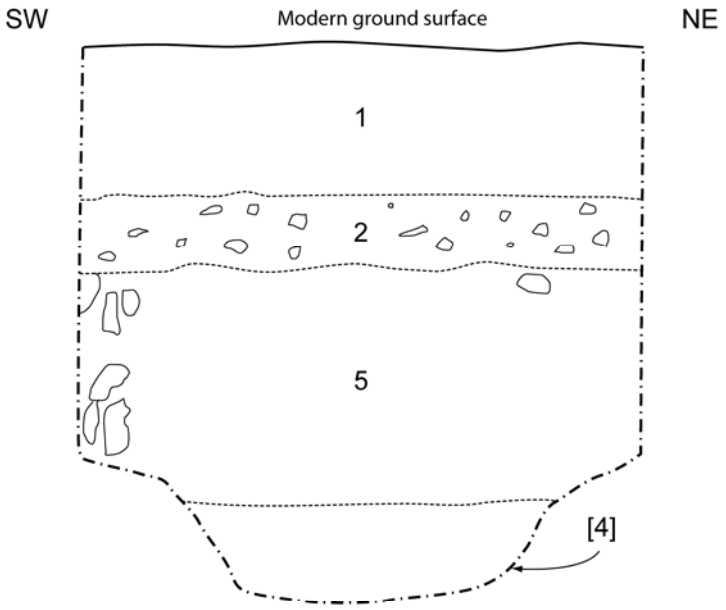
Site conditions were suitable for access to view the trench, with consideration for nearby road traffic. Due to the depth and restricted width of the trench all observations were made from the ground surface.

5.0 Results

The results of the excavation are discussed in order along the length of the trench, beginning at the south-eastern end an progressing north-west.

Excavation of the trench commenced at the junction of King Street and Carrow Hill and it was excavated to a depth of approximately 0.60m (Fig. 2). Modern asphalt and road bedding material [1] were observed to a depth of 0.30m, coming down onto a grey soil and rubble make-up deposit containing brick and flint fragments [2]. At the junction of Carrow Hill and King Street a well-built brick culvert, [10], was uncovered approximately 0.60m below the road surface (Fig. 2; Plate 1). This culvert was 1.60m wide with a visible height of 0.40m and ran north-west to south-east.

Section 1, facing south-east



Section 2, facing north-east

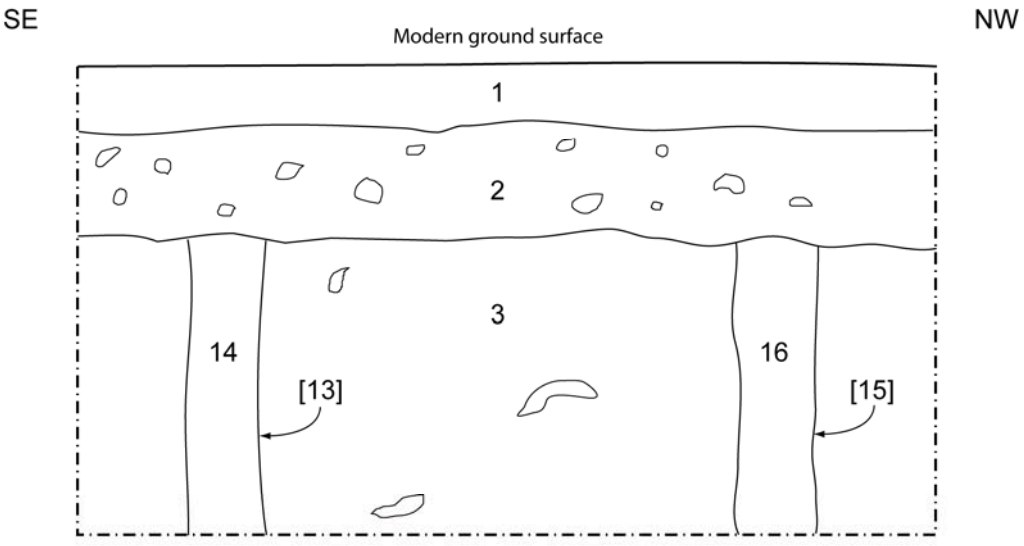


Figure 3 Sections 1 and 2

Approximately 22m north-west along the trench a complete arched brick culvert [9], 1.50m wide and 0.80m high, was located 0.60m below the current road surface (Fig. 2; Plate 2). This was on the same alignment as that previously seen near Carrow Hill and was likely to be part of the same 19th-century sewer system.

The trench continued north-west along King Street. Part of the cut of an upstanding post-medieval or modern brick wall, [7], was exposed in the trench at the frontage of 280 King Street (Fig. 2; Plates 3 and 4). The brickwork [8] appeared to be the remnants of a partially robbed out wall, the southern side of which was only seen in the east-facing section of the trench. It was surmised that this wall may have been part of a brick sewer culvert similar to that observed elsewhere along the length of the trench.

Modern and post-medieval make-up deposits continued to be observed during the north-westward excavation of the trench until just before where the line of the city wall crossed King Street. Here the depth of the trench was increased to approximately 0.95m. The modern make-up remained the same depth and beneath this was a deposit of loose chalk and soil with a few flint nodules [5]. The increased depth of deposits at this point was thought to be the result of the cut of the city wall [4] at this point, the fill of which was partially exposed in section (Fig. 3, Section 1). No construction cut was observed and much of the fill was obscured by a modern cable trench. The full depth of this cut was not observed, as the excavation stopped at the required depth for the trench, *c*.0.95m. The chalk and soil fill was noticeably less compacted than the surrounding chalk natural. This loose fill is likely to represent the remnants of the foundations of the city wall, although no trace of masonry remained within the cut, which probably indicated that it had been robbed out in the past. To the north-west of the wall line, several large flint nodules were observed in the sections of the trench at approximately 1m depth.

A lump of suspected masonry consisting of flint set in hard mortar was observed as the pipe trench cut through an area in the vicinity of the King Street gate, but this was revealed to be modern concreted pipework that had previously been disturbed by modern cable ducting. This was just one instance of the ground disturbance by services encountered along the length of the pipe trench.

Alongside the cottages on the street frontage to the south-east of the junction of King Street and Carrow Road the trench was excavated to a depth of 1.6m. The depth of asphalt and makeup here was similar to the deposits seen elsewhere, with solid chalk at a depth of approximately 1m. The building and widening of the road would have meant that any archaeological deposits would have been severely truncated.

Near to the junction of King Street and Alan Road a 19th-century brick culvert/sewer [6] was revealed directly beneath the road makeup (Figs 2 and 4; Plates 5 and 6). The base of the culvert was not exposed at the base of the trench, which at this point was approximately 1.2m deep. The exposed brickwork arch had a visible height 0.80m and the culvert was filled with rubble.

The presence of an electrical cable within the trench line caused the trench to be dug to a depth of 1.6m to go beneath it, this depth cutting through natural chalk. Close to the north-western side of the cut of the cable, opposite the Albion Mill and

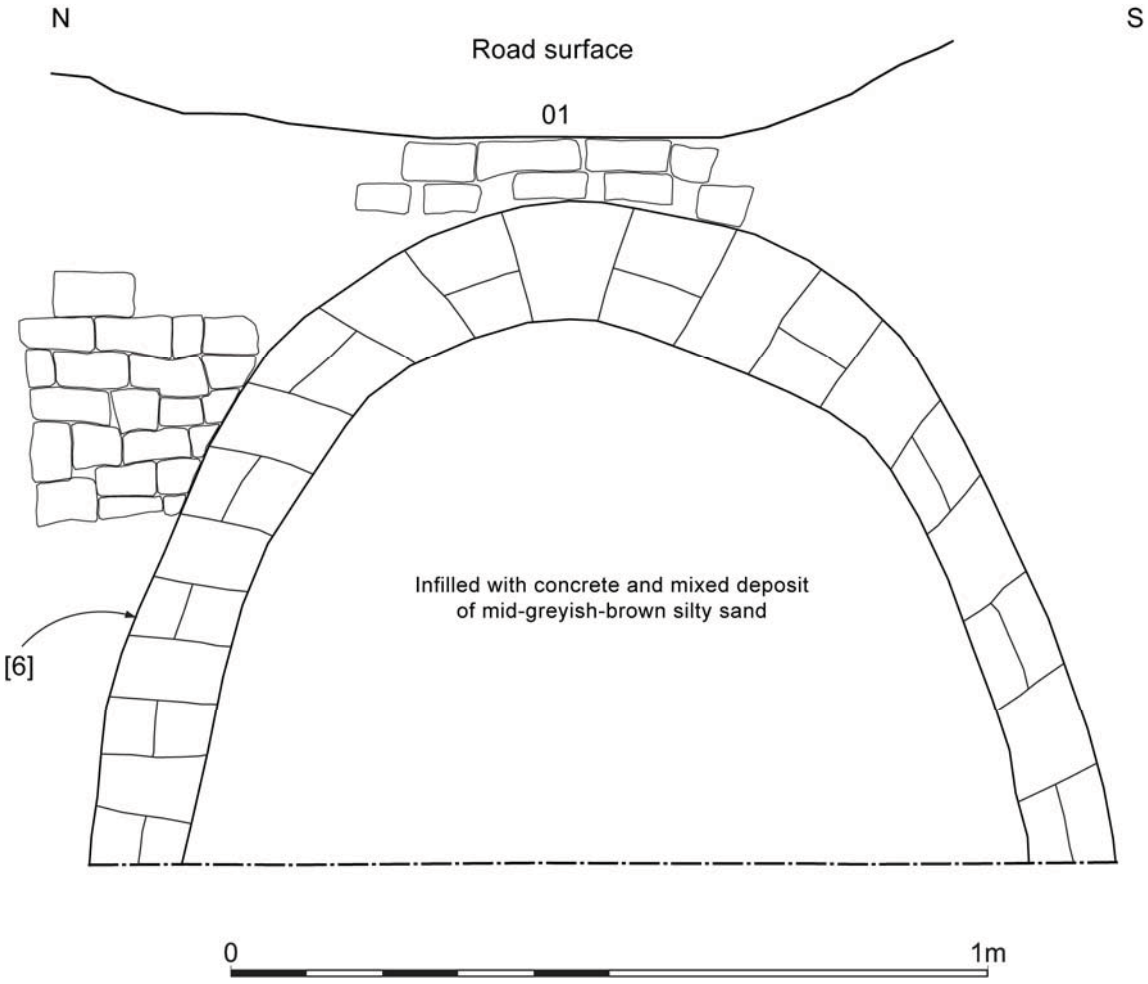


Figure 4 Section 3, west facing (sketch section drawn at an approximate scale)

at a depth from the surface of 0.60m, was pit [19] (Fig. 2). This pit was 0.50m wide, 0.25m deep and contained ash and clinker and a few sherds of blue-patterned domestic china.

Opposite an electricity substation on the northern side of the street a narrow vertical feature 0.25m wide and 0.50m below the road surface was observed in the north-east facing section [17] (Fig. 2). The fill of this feature, [18], was a brown-orange sand with small fragments of chalk and tile.

Approximately 14m from the north-western end of the pipe trench, two similar vertical features ([13] and [15]) were observed cut into the natural chalk from the base of the road makeup rubble. They were spaced 1.5m apart (Fig. 3, Section 2). The features were located approximately 0.50m below the current road surface, and had a consistent width of 0.25m with irregular straight sides that extended past the base of the trench. The fill of each feature, [14] and [16], was a mid-orange-brown silty sand with inclusions of chalk and slate tile fragments. These features were only seen on the north-east-facing section of the trench and may have been related to the property boundaries which existed here before the road was widened. The 1885 OS map shows the extent of the property boundaries existing at that time (Sheet LXIII.15.14.Norwich).

Several other service cables and pipes crossed the line of the trench and the pipeline was carried beneath them, again cutting through natural chalk. A three-core electric cable encased within concrete and connected to part of a modern brick wall in the north-west-facing section of the trench took some time to cut through before the trenching could continue.

Approximately 40m to the south-east of the junction of King Street and Rouen Road the trench was excavated to join the existing water main across the road to the north. A dark discolouration was observed in the north-east-facing section of the trench near the junction and a pit [11] could be ascertained within the makeup beneath the road surface (Fig. 2). Pit [11] was 0.65m deep, approximately 2m wide at the top with concave sides and a base 0.50m wide. The fill of this feature [12] appeared to consist of ash mixed with soil and contained brick and tile fragments. It appeared to be modern or late post-medieval. The natural chalk could be seen in the trench section at a depth of 0.50m below the road surface. No further features were observed within the remainder of the pipe trench.

6.0 The Finds

No artefacts of archaeological interest were recovered from the spoil of the pipe trench, the majority of the deposits encountered along its length being modern. Two pieces of late 19th-century to early 20th-century blue patterned transfer-printed china were observed in fill [20] of small post-medieval or modern rubbish pit [19]; these were not retained.

7.0 Conclusions

The excavation of the pipe trench along part of the length of King Street had the potential to expose earlier road surfaces or evidence for the street frontage of earlier buildings. Certainly in the vicinity of the city wall and the site of the medieval King Street gate it might be expected that the excavation would locate the line of the wall and perhaps some surviving masonry. However, the narrow trench made any detailed interpretation of the observed remains difficult.

As the excavation of the trench showed, the laying of the road base and the consequent widening of the road appears to have removed any traces of deposits and features of archaeological interest. The two rubbish pits and the deep narrow features seen in cross-section along the route are likely to date from the late Victorian period before the road was widened. The pits were small and of a domestic nature, dug into back or front yards, while the narrow features may represent the location of substantial posts along the then road edge. The brick culvert(s) revealed during the excavation represent the Victorian sewers which served the houses along King Street before the sewage system was modernised in the mid-1930s.

The deposits observed in the sections of the trench were either post-medieval or modern road bedding and makeup and natural chalk. The few flints seen in the chalk appeared to be natural nodules and no evidence for faced flint or flint set in mortar was found.

A possible foundation cut associated with the city wall was observed in the trench sections near the known location of the King Street gate. However, any masonry evidence of the gate or the wall had been removed, perhaps as a result of the

widening of the road in the early 20th century or due to its having been robbed out when the gate was demolished in the late 18th century.

Acknowledgements

The author would like to thank the site agent Martin Rix, Mark Griggs and the construction crew from Morrison's Construction for their co-operation during the watching brief. The work was funded by Anglian Water. The watching brief was carried out by John Ames and the author. The figures were digitised by Sandrine Whitmore and illustrations were prepared by Michael Feather. The report was edited by Richard Hoggett.

Bibliography

Adams, D. P.	2003	*An Archaeological Evaluation and Building Survey at Norwich City Football Club, Carrow Road, Norwich.* NAU Report No. 791 (unpublished).
Ayers, B	2003	*Norwich 'A Fine City'.* Tempus
Ayers, B.	2004	'The Urban landscape' in Rawcliffe, C. and Wilson, R. (eds), *Medieval Norwich.* London. 1–28.
Department of the Environment	1990	*Planning Policy Guidance Note 16: Archaeology and Planning*. London: HMSO.
Funnell, B.	2005	'Geological Background' in Ashwin, T. and Davison, A. (eds), *An Historical Atlas of Norfolk.* Phillimore.
Hutcheson, A.	1998	*Report on an Archaeological Evaluation and Structural Survey at Read's Flour Mill, King Street, Norwich.* NAU Report No. 311 (unpublished).
Percival, J.	2003	*An Archaeological Evaluation at Read's Flour Mill, King Street, Norwich.* NAU Report No. 817 (unpublished).
Percival, J. & Shelley, A.	2003	*Report on an Archaeological Evaluation at Old Barge Yard and St Anne's Wharf, Norwich.* NAU Report No. 780 (unpublished).
Shelley, A.	1997	*A Watching Brief at 70 King Street, Norwich.* NAU Report No.. 215 (unpublished).
Shelly, A..	1998a	*An Archaeological Evaluation at Cannon Wharf, King Street, Norwich.* NAU Report No. 296 (unpublished).
Shelley, A.	1998b	*An Assessment of Excavations and Surveys at Dragon Hall, Norwich NAU Report (unpublished)*
Shepherd-Popescu, E.	Forthcoming	*Norwich Castle: Excavations and Historical Survey, 1987–98.* East Anglian Archaeology.
Wiltshire, P.E.J. & Emery, P.A.	2000	*Report on an Archaeological Watching Brief at Riverside, Norwich.* NAU Report No. 354 (unpublished).

Appendix 1a: Context Summary

Context	Category	Description	Period
1	Deposit	Asphalt road surface	Modern
2	Deposit	Road makeup	Modern
3	Deposit	Compact chalk	Natural
4	Cut	Cut of city wall	Medieval
5	Deposit	Fill of [4]	-
6	Masonry	Brick culvert	Post-medieval
7	Cut	Robbed wall cut	Post-medieval
8	Masonry	Remnants of brickwork of [7]	Post-medieval
9	Masonry	Brick culvert	Post-medieval
10	Masonry	Brick culvert	Post-medieval
11	Cut	Rubbish pit	Post-medieval
12	Deposit	Fill of [11]	-
13	Cut	?Posthole cut	Post-medieval
14	Deposit	Fill of [13]	-
15	Cut	?Posthole cut	Post-medieval
16	Deposit	Fill of [15]	-
17	Cut	?Posthole cut	Post-medieval
18	Deposit	Fill of [17]	-
19	Cut	Rubbish pit	Post-medieval
20	Deposit	Fill of [19]	-

Appendix 1b: OASIS feature summary table

Period	Feature type	Quantity
Medieval (1066–1539)	Wall cut	1
Post-medieval (1540–1900)	Brickwork culverts	3
Modern (1900–2050)	Pit	2

Plate 1 Brick culvert at junction of King Street and Carrow Hill

Plate 2 Arched brick culvert under King Street

Plate 3 Medieval/modern brick wall in front of 280 King Street

Plate 4 Medieval/modern brick wall in front of 280 King Street

Plate 5 19th-century brick culvert

Plate 6 19th-century brick culvert