

**An archaeological watching brief  
on one section of an Anglian Water main  
Spring Lane, Lexden, Colchester**

**April-September 2001**

**on behalf of  
Breheny Contractors**

CAT project ref.: 01/4D  
Colchester Museum accession code: 2001.74  
NGR: TL 9728 2542-TL 9688 2468



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**CAT Report 160**

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Fig 1 Location of pipeline, scale 1:2500.

Fig 2 Plan of Spring Lane pipeline section showing features and finds, scale 1:500.

## 1 Summary

*An archaeological watching brief along a new water-main to the east of Spring Lane, Lexden, Colchester, Essex revealed two or three sand quarry-pits dated to the Roman period. One pit contained Roman bricks which would have formed a voussoir over a door or window, indicating the presence of a high-status Roman building nearby.*

## 2 Introduction

- 2.1 This is the report of an archaeological watching brief carried out by Colchester Archaeological Trust (CAT) on the route of a new Anglian Water water-main. Planning permission was given with the condition that an archaeological watching brief be carried out.
- 2.2 The site is located 2.5km west of Colchester town centre, in Lexden. The water-main starts immediately south of Cymbeline Way at the Spring Lane roundabout at National Grid Reference TL 9728 2542. It runs towards Spring Lane and joins it just north of Lexden Road. It crosses Lexden Road (the A1124), runs along Church Lane, and finishes in Shakespeare Road at TL 9688 2468 (Fig 1). The whole length of the water-main is 1.1km but this report only covers the Spring Lane section (Church Lane report forthcoming).
- 2.3 The lower ground along Spring Lane lies in the valley of the River Colne at approximately 15m OD. This land is associated with a number of springs feeding small streams that flow into the River Colne. The underlying geology of the area is London Clay overlain by a superficial sequence of sands and gravels.
- 2.4 This report follows the standards set out in the Borough Council's *Guidelines on standards and practices for archaeological fieldwork in the Borough of Colchester* (1999) and *Guidelines on the preparation and transfer of archaeological archives to Colchester Museums* (1996b), and the IFA's *Standard and guidance for an archaeological watching brief* (1999).

## 3 Archaeological background

- 3.1 The area around Lexden has been occupied from prehistoric times to the present day. The earliest finds consist of one Stone Age hand-axe from Church Lane (Essex Heritage Conservation Record or EHCR no 11968) and a Palaeolithic hand-axe from the Lexden Road/Spring Lane junction (EHCR 11861).
- 3.2 The pipeline is thought to bisect two Roman roads which run west from Colchester to London. Early Ordnance Survey maps indicate this part of Lexden Road being of Roman origin ('Stane Street'), but before the medieval period it would have had a straighter alignment. This may cross Lexden Park and join up with a section of Roman road identified on St Clare Road, in which case the modern water-main would cross this road on Church Lane. Another Roman road runs through the Grammar School grounds on Lexden Road and joins up with Lexden Road further to the east (EHCR 11705).
- 3.3 Iron Age and Roman burials have been found in the area now used as St Leonard's graveyard. It is possible that the cemetery extended to the west into Lexden Park, where a number of late Iron Age to Romano-British urns and an amphora have been found (EHCR 11713).
- 3.4 The Iron Age settlement of Camulodunum was flanked by a number of large linear earthwork dykes, most of which were built in the late Iron Age to define and protect this important settlement centre which was succeeded by Roman Colchester. However, some of the dykes can be dated to the early Roman period. The pipeline lies between two dykes built by the Iron Age Trinovantes tribe. The closest one is the Lexden Dyke (EHCR 11628), a bank and ditch built in AD 10. This lies 150m to the east but only the bank survives, at Lexden Springs. The Triple Dyke (EHCR 11636) probably dates from the early Roman period. It lies 400m to the west of the water-main at its closest point (CAR 11, 26).

- 3.5 The Victorian Church of St Leonard's, Lexden (EHCR 11808) was built to replace a 13th-century chapel to the north of its site, the remains of which were still visible in the 1950s (EHCR 11807).

## 4 Aims and objectives

The aim of the watching brief was to identify and record any archaeological features, finds or deposits revealed by the groundworks. Particular attention was paid to potential surviving Iron Age and Roman deposits including burials.

## 5 Methods

- 5.1 The work was carried out by professional archaeologists Stephen Benfield, Howard Brooks, Philip Lomas and Kate Orr, according to a brief written by Colchester Borough Council's Archaeology Officer. An intensive watching brief was maintained during mechanical topsoil-stripping and trench-excavation to the east of Spring Lane between April and September 2001. The most westerly section of the pipeline was cut before it could be monitored.
- 5.2 A maximum width of 10m topsoil was stripped. The width for the water-main trench was approximately 1.75m and the depth 2-2.5m. A record of the position of the site excavations was made which has been reproduced as Figure 2. Soil types were noted and features were noted although it was not always possible to enter the trenches. Colour digital photos were taken of general shots and features.
- 5.3 Finds were washed, marked and bagged according to context.
- 5.4 This report follows the standards set out in the Borough Council's *Guidelines on standards and practices for archaeological fieldwork in the Borough of Colchester* (1999), and *Guidelines on the preparation and transfer of archaeological archives to Colchester Museums* (1996), and the IFA's *Standard and guidance for an archaeological watching brief* (1999).

## 6 Results (Fig 2)

- 6.1 A constant watch on this length of pipeline was maintained by Philip Lomas in April 2001. Features F1, F2 and F3 were seen and recorded by Stephen Benfield. Topsoil in the field had already been stripped by the time of the first visit. Approximately 2.5-3m lengths of trench were cut at a time, and these were backfilled before cutting and placing the next pipeline section. Roman pottery and other artefacts were found unstratified along the pipeline (Fig 2 and Appendix A).
- 6.2 Two features (F1 & F2) were observed approximately 50m west of the stream (the eastern extent of the pipeline trench). F1 was a large pit, 13m wide, filled with grey silt and orange-grey sandy silt. Quantities of large Roman tiles and bricks with some Roman pottery of 1st-century date was encountered at the base of the pipeline cut (1.8m below present surface) and extending deeper. The water-table starts at approximately 1.8m. The feature was cut into an area of sand and is interpreted as being a Roman sand quarry-pit.
- 6.3 F2 was a smaller pit, 4.5m wide, immediately west of F1. It was filled with a predominantly grey sandy silt. The grey silt fill extended to approximately 1.5m deep below the present ground-surface, but this may not be the base of the feature as it appeared to have disturbed sand immediately below this level; this may be disturbance and material slippage back into it from the sandy sides of the cut. Roman tile and brick were retrieved from the lower part of the fill between 1.0m and 1.5m down. This feature is interpreted as being a second Roman sand quarry-pit, though much smaller than F1.
- 6.4 Further to the west, in the area to the rear of Glebe House, was F3, a pit or ditch filled with medium brown silt loam. This feature was about 5.8m wide (E-W) and 1.4m deep at its base which appeared to be of rounded profile. In the south section,

the shape of the fill within the cut may indicate two features or a recut of this feature. No finds were recorded from F3 but it was cut by a modern tile land-drain (F4, runs E-W). F3 cut through a banded stony grey sandy silt, similar to the fill of F1 and F2. This material occurs along the length of the pipeline cut west from F3. It is deeper in the northern pipe section (about 1m or more) than the southern section and continued as far as observation was possible on this stretch of pipeline (which was to about 35m east from Spring Lane). No finds were made from this material.

- 6.5** In August, a foul sewer was re-routed to the south of the new water-main. A visit was made by Howard Brooks to monitor the manhole but it was obscured by shoring. Another visit was made by Kate Orr to monitor the re-routed sewer-trench to the south of where F1 had been recorded. A sandy mid-brown loam with frequent small stones overlaid sand. There were no features or finds of archaeological significance.
- 6.6** A visit was made by Howard Brooks in September 2001 to monitor a small section of drain-trench in Spring Lane itself. The trench was dug to 1.9m. Turf and gravel hogging overlaid grey river silts. There were no features or finds of archaeological significance.

## **7 Discussion**

- 7.1** The watching brief revealed two Roman pits to the east of Glebe House which appear to be sand quarry-pits. A third pit is undated.
- 7.2** The first of the pits (F1) was filled by Roman roof-tile and two large bricks interpreted as being voussoirs. The voussoirs would have formed an arch around a door or window opening of a Roman building. As the brick recovered does not appear to be wasters from a kiln, they may derive from a building or buildings in the area which are as yet unlocated.

## **8 Archive deposition**

A copy of this report, the finds, digital data on disk and the paper archive will be deposited permanently with Colchester Museum under accession code 2001.74.

## **9 Acknowledgements**

Colchester Archaeological Trust is grateful to the following for their help and co-operation:

Anglian Water  
Breheny Contractors  
Martin Winter, Archaeological Officer for Colchester Borough Council

## **10 References**

Hawkes, C F C, & Crummy, P, 1995 *CAR 11, Colchester Archaeological Report 11, Camulodunum 2*

*Kate Orr, November 2001*

**Distribution list:**

Anglian Water

Martin Winter, Archaeology Officer for Colchester Borough Council

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Essex Heritage Conservation Record, Essex County Council



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## Appendix A – list of finds

position along pipeline from east end	find bag no	context	find type	wt (g)	comments	archive status
unlocated surface find	1	U/S	post-Roman pottery	2	1 sherd fabric 21A - date: 15th-16th century	discarded
30-32.5m	2	U/S	peg-tile	85	post-Roman peg-tile fragment	discarded
32.5-35m	3	U/S	LIA/Roman pottery	52	grey ware (fabric GX) pottery sherd	retained
40m-42.5m	4	U/S	Fe object	78	slightly curved flat Fe strip	discarded
42.5m-45m	5	U/S	post-Roman pottery	21	sherd, Fabric 13, abraded - date: 12th century	retained
45m-47.5m	6	U/S	Roman tile	2000	4 <i>tegula</i> fragments and 1 probable brick fragment - all red fabric	retained
51m-64m	7	F1 fill	Roman pottery	85	samian: fabric SG (59g) - plate/dish base, abraded; fabric DJ (3g) abraded; fabric GX (26g) Cam 266, burnt material on exterior surface - date: 1st century	retained
51m-64m	8	F1 fill	Roman brick and tile	29000	Roman brick 245mm wide x 45mm thick; Roman brick 255mm wide x 80mm tapering to 65mm thick - 1 fragment black ?overfired, second partially blackened other brick and <i>tegula</i> tile fragments - all red fabric	retained
57.5m-60m	9	U/S, F1 area	Roman pottery	32	samian: fabric SG (12 g) Dragendorff 18, abraded, fabric GX (20 g) - date: probably 1st century (samian 1st century, grey ware also probably early Roman)	retained
57.5m-60m	10	U/S, F1 area	Roman brick & tile	4000	2 Roman brick fragments and Roman <i>tegula</i> with distorted back edge ?tile waster - all red fabric.	retained
65m-67.5m	11	U/S area of F1/F2	Roman tile	572	front edge fragment of <i>tegula</i> , slightly crazed surface, signs of burning ?waster; all red fabric	retained
65m-69.5m	12	F2 fill	Roman brick	1000	2 fragments of Roman brick - all red fabric	retained
approx 45m	13	U/S	Roman tile	124	fragment of <i>tegula</i>	retained
approx 101m	14	U/S	ceramic figurine	20	small Wade figurine (koala bear) - modern	discarded
approx 142m	15	F4	post-Roman tile	366	land-drain tile - modern	discarded
approx 100m	16	U/S	Fe object	80	Fe clamp or large nail	discarded

## Appendix B – report on the Roman tile

by Ernest Black

S = small, <100mm greatest measurement

M = medium, 100 > 200mm

L = large, 200mm >

T = thickness

2001.74

?peg-tile

2001.74 (6)

- a) probable *tegula* base, T approx 18-21, M
- b) bottom left corner of *tegula*, T approx 24-28, S
- c) *tegula* base, T 17-18, M
- d) brick, T 43-44, S
- e) *tegula* base and flange, T approx 25, slight mortar traces, M

2001.74 (8) - F1

- a) three joining fragments of brick, complete width approx 239mm, maximum surviving length 298mm, T approx 40-42, L; part of a lydion.
- b) brick, parts of two edges at 90°, T approx 43-45, M
- c) *tegula* base, T approx 15-23, staining (probably burning) on base, M
- d) *tegula* base and narrow flange, T 18-20, S; a well-made tile with evenly sanded base
- e) *tegula* base, T approx 23, S/M
- f) formless fragment with mortar over broken edges, S
- g) *tegula* base, T22-26, staining (probably burning) on broken edge and on lower surface, M
- h) formless fragment with some staining (?mortar) over breaks, S
- i) possible *tegula* base, T 18-20, with mortar over broken edge, S
- j) possible *tegula* base with burning over all surfaces, T 16-18, S
- k) *tegula* flange, no base surviving, S
- l) *tegula* flange and base, T 19-21 (considerably less than the width of the flange), M
- m) *tegula* flange and base, T 36-40, height of flange approx 75 - a very substantial *tegula*, S
- n) *tegula* base, T approx 16-18, S
- o) voussoir brick, complete width of face approx 259, surviving length 288; T at top approx 81 decreasing to approx 60 at break; one face trimmed, the other surfaces sanded, L
- p) two joining fragments from voussoir brick, complete width of face 251, maximum surviving length 245; T at top approx 75-78 decreasing to approx 63 at break, L

2001.74 (10)

- a) distorted top right corner of *tegula*, T 20-22, M - although it is possible that this was a waster, the distortion is not severe enough to have prevented normal use and may have occurred before firing
- b) brick, T approx 50-60, complete width 125, maximum surviving length approx 125, M  
One edge is sanded and 125mm from this edge, the tile has been cut through before firing to form a parallel side which is unsanded. At the sanded edge the thickness is approx 60mm, and at the cut edge it decreases to approx 50mm. Bricks are often thicker at the edge than at the centre of the tile, and this tile may have been formed by quartering a brick that was twice as wide. The lydion and two voussoir bricks from F1 have widths of approx 239, approx 251 and approx 259mm respectively. All may have been set in a former with a width of one *pes* (Roman foot of approx 296mm) and have undergone variable shrinkage during firing. Twice the width of this fragment (2 x 125mm) would fall within the same range. The result of such quartering would have been four small voussoir-shaped tiles and this may have been intentional.
- c) corner of brick, T 54-57, maximum surviving width approx 118, maximum surviving length approx 123; surface staining indicates burning, M



2001.74 (11)

bottom right corner of *tegula*, T approx 23, traces of burning on upper surface of base and over broken edge, M

2001.74 (12)

a) brick, T approx 53, one edge present, S  
b) corner of brick, T approx 50-55, M

2001.74 (13)

*tegula* flange, very abraded, T approx 20, S

2001.74 (15)

corner of *imbrex* with oval hole (approx 7 x 5mm on inside surface and distorted on external surface) driven through wall; possibly a nail-hole, M

### Discussion

The roofing-tiles comprise predominantly *tegula* fragments, though one *imbrex* fragment is present. Most of the *tegula* fragments from F1 (and elsewhere) would be well at home in a 2nd- to 3rd-century context. However, the substantial *tegula* (36-40mm thick) from F1 is anomalous and could be a 1st-century type and/or from a much heavier roof than the other tiles.

The assemblage includes various brick fragments, with at least one lydion, and fragments from two large voussoir bricks. There are no recognisable fragments that can be attributed to a hypocaust, and the use of purpose-made voussoirs suggests a building with at least some employment of decorative brickwork, possibly framing window-arches or door-arches. A fragment from Area 10 seems to be a smaller size of voussoir made by quartering a larger brick before firing, and it may have been employed in the same building, presumably nearby. However, there is considerable doubt that all the tile even from F1 was derived from the same building, since some fragments had been subjected to partial or total burning after being broken while others showed no traces of burning.



Fig 1 Location of pipeline, scale 1:2500.

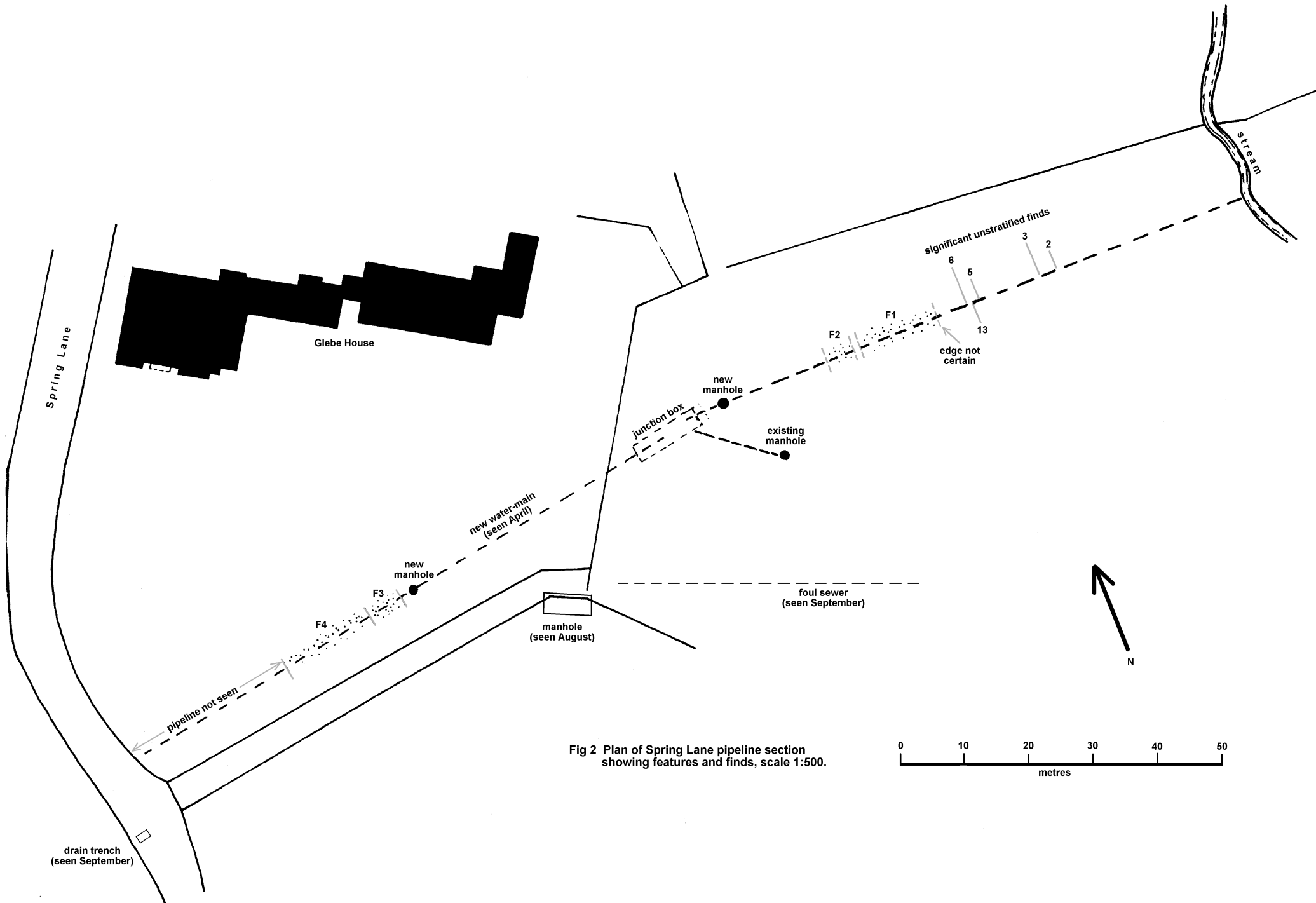
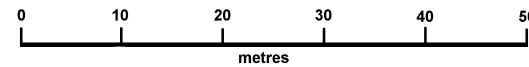


Fig 2 Plan of Spring Lane pipeline section showing features and finds, scale 1:500.



**Essex Heritage Conservation Record**  
*Essex Archaeology and History*

**Summary sheet**

<b>Site name/address:</b> Lexden pipeline, Spring Lane section, Colchester, Essex	
<b>Parish:</b> Colchester	<b>District:</b> Colchester Borough
<b>NGR:</b> TL 9728 2542-TL 9688 2468	<b>Site code:</b> 2001.74
<b>Type of work:</b> Watching brief	<b>Site director/group:</b> Colchester Archaeological Trust
<b>Date of work:</b> April-September 2001	<b>Size of area investigated:</b> 1.1km
<b>Location of finds/curating museum:</b> Colchester Museum	<b>Funding source:</b> Anglian Water
<b>Further seasons anticipated?</b> No, but work is continuing along the Church Lane section (separate report forthcoming).	<b>Related EHCR nos:</b> 11861, 11968, 11705, 11713, 11628, 11636, 11808, 11807
<b>Final report:</b> CAT Report 160 and summary in <i>EAH</i>	
<b>Periods represented:</b> Roman	
<b>Summary of fieldwork results:</b> An archaeological watching brief along a new water-main to the east of Spring Lane revealed two or three sand quarry-pits dated to the Roman period. One pit contained Roman bricks which would have formed a voussoir over a door or window, indicating the presence of an unlocated Roman building nearby.	
<b>Previous summaries/reports:</b> None	
<b>Author of summary:</b> Kate Orr	<b>Date of summary:</b> November 2001