

# 49 St Peter's Street, Canterbury, Kent

## Archaeological Excavation Report

Project Code: 49 SPSC EX15  
Archive No: 3661  
Report No: 2016/1  
NGR: 614709, 1579870

25 January 2016

### Document Record

This report has been issued and amended as follows:

Version	Prepared by	Position	Date
01	Alison Hicks	Senior Project Manager	25 January 2016

With contributions by Enid Allison, Luke Barber, Wendy Carruthers, Alison Locker, Elke Raemen and Andrew Savage

### Conditions of Release

This document has been prepared for the titled project, or named part thereof, and should not be relied on or used for any other project without an independent check being carried out as to its suitability and prior written authority of Canterbury Archaeological Trust Ltd being obtained. Canterbury Archaeological Trust Ltd accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned. This document has been produced for the purpose of assessment and evaluation only. To the extent that this report is based on information supplied by other parties, Canterbury Archaeological Trust Ltd accepts no liability for any loss or damage suffered by the client, whether contractual or otherwise, stemming from any conclusions based on data supplied by parties other than Canterbury Archaeological Trust Ltd and used by Canterbury Archaeological Trust Ltd in preparing this report. This report must not be altered, truncated, précised or added to except by way of addendum and/or errata authorized and executed by Canterbury Archaeological Trust Ltd.

All rights including translation, reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Canterbury Archaeological Trust Limited

© Canterbury Archaeological Trust Limited  
92a Broad Street · Canterbury · Kent · CT1 2LU  
Tel +44 (0)1227 462062 · Fax +44 (0)1227 784724 · email: admin@canterburytrust.co.uk  
www.canterburytrust.co.uk



## CONTENTS

List of figures .....	iii
List of plates.....	iii
List of tables.....	iii
Abstract .....	iv
Acknowledgements .....	v
1. Introduction.....	1
2. Location, topography and geology .....	1
3. Archaeological and historical background.....	1
4. Methodology .....	2
5. The excavated remains.....	3
6. The Roman pottery .....	7
7. The metalwork .....	16
8. The plant and insect remains.....	16
9. The fish remains.....	34
10. Project archive .....	35
11. Summary of the excavation results .....	36
12. Bibliography .....	38
Context list .....	42

## LIST OF FIGURES

Figure 1	Site location plan.
Figure 2	The location of the site in relation to known features of the Roman town.
Figure 3	Trench section edges.
Figure 4	Overall extent of clay flooring (32), (31) and (30).
Figure 5	Flint metalling (25).
Figure 6	Clay floor (18), beam slot [19] and overlying deposits (16) and (15).
Figure 7	Pit [8] and features [22] and [24].
Figure 8	Modern features [3], [11], [36] and [45].

## LIST OF PLATES

Plate 1	Trench in the basement prior to cutting, looking north-east. Scale 1m.
Plate 2	Clay floor (32) with patches of scorching and charcoal upon the surface. Looking north-east. Scale 0.5m.
Plate 3	Flint metalling (25) during excavation, looking north-east.
Plate 4	Clay floor (18) looking south-west. Scale 1m.
Plate 5	Context 33. ‘Belgic’ coarse grog-tempered ware: jar rims.
Plate 6	Context 33. ‘Potter’s mark’ on ‘Belgic’ coarse grog-tempered ware.
Plate 7	Context 33. Combed decoration on ‘Belgic’ coarse grog-tempered ware.
Plate 8	Context 33. Canterbury ‘north-Gaulish’-type sandyware. Clockwise, from top left: bead-rim jars x2; flange-rim carinated bowl; everted-rim jar.

## LIST OF TABLES

Table 1	Roman pottery fabrics from all contexts, quantified by sherd-count, weight in g and VRE%. Alpha-numeric codes refer to the CAT fabric reference series.
Table 2	Catalogue of the Roman pottery. Pottery fabrics are identified by their CAT fabric reference series codes (see Table 01 for a concordance of reference codes and common names). They are quantified, per context, by sherd-count, weight in g and VRE%. Generic form-types identified are listed as present. Forms are classified as ‘closed’ or ‘open’ when a more specific identification was not possible for any sherds in that context.
Table 3	Charred, waterlogged and mineralised plant remains.
Table 4	Main statistics of the beetle and bug assemblage from pit [8].
Table 5	Insects and other invertebrates recorded from the samples.
Table 6	Fish remains recovered from the sampled deposits, by context.
Table 7	Content of site archive.
Table 8	Content of material archive.

## Abstract

*Canterbury Archaeological Trust undertook an archaeological excavation within the basement of No 49 St Peter's Street, Canterbury, as part of a flood relief scheme. The fieldwork was carried out between 9<sup>th</sup> and 20<sup>th</sup> February 2015 on behalf of Clancy Docwra and Southern Water ahead of the proposed installation of a water pump. The archaeological work involved the hand cutting of a trench, 2.2m east–west by 2.1m north–south, up to 1.24m deep, through the concrete basement floor of the building currently occupied by 'Subway'. The site lies on the south-west side of St Peter's Street, immediately south-east of a small lane leading from St Peter's Street to St Peter's Grove.*

*The site lies within the walls of the Roman town of Durovernum Cantiacorum, but in a marginal location in the Roman period, sitting within the floodplain between two channels of the river Stour. Associated with this floodplain location was a lower sequence of naturally accumulated silts and gravel at the base of the excavated trench.*

*Overlying the silts and gravel was a deliberate dump of pottery, brick, tile and other debris, deposited c AD 60–80 to create an artificial platform. On this platform were the remnants of a building, comprising an internal clay floor and occupation deposits. No wall remains survived, so it is not known whether the building would have been constructed of timber or masonry.*

*During the late first century AD, the ground surface was raised again and flint metalling laid over the newly raised ground. The metalling might have formed a yard within or adjacent to an associated building. Occupation material built up across the metalling before a change of use was suggested by an overlying sequence of clay floor and occupation deposits, almost certainly lying within the room of a building. The latest activity perhaps spanned the early to mid second century AD to at least the mid third century.*

*Final use of the area during the Roman period, as identified within the excavation trench, saw the probable abandonment of the building and the cutting of a small number of features, one a cess pit of third-/fourth-century date containing a waterlogged basal fill from which bioarchaeological assemblages were recovered.*

*Capping the sequence of Roman activity were modern features and deposits.*

## **Acknowledgements**

The author would like to thank the excavation team: Phil Mayne and Dale Robertson. The excavation phase of the project was managed by Paul Bennett. Artefactual and environmental work was undertaken by Enid Allison, Indiana Clifton, Michele Johnson, Andrew Savage and Alex Vokes.

The report includes contributions by Enid Allison (insect remains), Luke Barber (metalwork), Wendy Carruthers (plant remains), Alison Locker (fish remains), Elke Raemen (metalwork) and Andrew Savage (Roman pottery).

Thanks are extended to Clancy Docwra for funding the work, and to Clancy Docwra and Southern Water for their assistance during the course of the project.

## **1. Introduction**

- 1.1 Canterbury Archaeological Trust undertook an archaeological excavation within the basement of No 49 St Peter's Street, Canterbury, as part of a flood relief scheme. The fieldwork was carried out between 9<sup>th</sup> and 20<sup>th</sup> February 2015 on behalf of Clancy Docwra and Southern Water ahead of the proposed installation of a water pump. The archaeological work involved the hand cutting of a trench, 2.20m east–west by 2.12m north–south, up to 1.24m deep, through the concrete basement floor of the building currently occupied by 'Subway'.

## **2. Location, topography and geology**

- 2.1 The site lies on the south-west side of St Peter's Street, the north-west end of the principal thoroughfare running through the city of Canterbury between St George's and the West Gate. No. 49 lies immediately to the south-east of a small lane leading from St Peter's Street to St Peter's Grove. The basement floor lies at a height of c. 7.80m OD. The trench was positioned on the north-east side of the basement (centred at NGR 614709, 1579870, Fig. 1).
- 2.2 The British Geological Survey records the underlying geology as comprising alluvial clay, silty, sand and gravel deposits overlying chalk bedrock (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

## **3. Archaeological and historical background**

- 3.1 The site lies within the walls of the Roman town of *Durovernum Cantiacorum*, in the north-west quadrant of the town and to the south of the road leading out at West Gate (Fig. 2). By the late first century AD, the Roman town had been established as a provincial centre, and furnished with a road grid and timber buildings. The first theatre was constructed c AD 80–90. The settlement prospered over the following two centuries and saw the construction of major public buildings including a forum, a remodelled theatre and public baths, as well as temples and town-houses. It was enclosed by a wall c AD 270. Occupation in the town continued into the early decades of the fifth century AD.
- 3.2 Despite lying within the town walls, the site is located within a floodplain between two channels of the River Stour, lying to the north-west and to the south-east. Roman buildings in the floodplain area of the town are known from excavations at the site of the new Marlowe Theatre, to the north-east of the adjacent road, and further south closer to the north-west to south-east aligned road leading between London Gate and Ridingate. The remains of a large Roman town-house, evidently of some status and containing evidence of a hypocaust system, were seen at the Marlowe Theatre site (Holman and Wilson 2010, 2–3). It was perhaps constructed in the late first/early second century AD. To the south, remains of Roman buildings have been uncovered within the area of St Mildred's Tannery, including a possible *mansio* (inn for travellers), together with the remains of gravel-metalled streets (e.g. Blockley 1987, 18–19; Pratt 1992).

## 4. Methodology

### *Field methodology*

- 4.1 The archaeological works comprised the hand excavation of a trench within the basement of No. 49 St Peter's Street, with dimensions of 2.20m north-west to south-east by up to 2.12m north-east to south-west (Fig. 1, Plate 1). The trench was excavated to a depth of up to 1.24m, 6.56m OD, this being the contractor's formation level.
- 4.2 The lower levels of the trench were waterlogged, so a pump was employed to enable excavation to occur. Excavation work therefore occurred under difficult conditions, under artificial lighting and in partly waterlogged conditions.
- 4.3 Two positions at the base of the trench were hand augered to establish the depth of natural ground. Natural silty clay (Brickearth) was identified 0.28–0.32m below the base of the trench, at 6.24–6.28m OD.
- 4.4 The excavated deposits and features were recorded using standard CAT methodologies. The remains were photographed in digital format and planned at a scale of 1:20. The four sections of the trench were recorded at a scale of 1:10.
- 4.5 Six bulk soil samples were taken from deposits for general biological analysis, environmental archaeological analysis and finds recovery.
- 4.6 All site work was undertaken in accordance with the general methods of archaeological good practice as outlined in the Chartered Institute for Archaeologists *Standards and guidance for an archaeological excavation* (1999). Canterbury Archaeological Trust is a Registered Organisation with the Chartered Institute for Archaeologists and confirms to their by-laws, standards and policy statements.

### *Archive methodology*

- 4.7 Following completion of the fieldwork a site archive was prepared in accordance with Appendix 3 of *Management of archaeological projects 2* (English Heritage 1991, 30–31).
- 4.8 The project drawings were digitally scanned and context information was entered into the Integrated Archaeological Database (IADB) under the project name 49SPSC EX15. A digital plan of the site was produced using AutoCad.
- 4.9 All retained artefacts recovered during the project have been catalogued, processed and packaged in accordance with the *United Kingdom Institute for Conservation Guidelines No.2* (UKIC 1983).

4.10 Finds information has been entered into the IADB.

## 5. The excavated remains

### *Natural*

5.1 Augering through the base of the trench, lying at c 6.56m OD, revealed natural Head Brickearth at a depth of 6.24–6.28m OD.

### *Alluvial material*

Fig. 3

5.2 Overlying natural Head Brickearth was a deposit of green-orange silt and gravel (35; not illustrated in plan), extending across the entire base of the trench. It contained flint, chalk and occasional small flecks of oyster shell. Where augered, the deposit was seen to have a thickness of 0.28–0.32m<sup>1</sup>. Deposit (35) was sealed by a layer of soft green-grey silt (34; not illustrated in plan), up to 0.18m thick, which contained occasional small flints, fragments of oyster shell, charcoal, animal bone, burnt daub and ceramic building material (CBM), as well as ten sherds of pre-Flavian<sup>2</sup> pottery. Sampling of deposit (34) (sample <7>) produced a concentration of waterlogged plant remains, as well as charred plant remains and some insects. Layers (35) and (34) are thought to have largely formed naturally at the site during periods of waterlogging, silting and erosion, the inclusions probably washing in from the surrounding ground as well, perhaps, as being dumped into the area from nearby sites of occupation.

### *Roman levelling*

Fig. 3

5.3 During the first century AD, material was deliberately dumped across the area of the site. This activity was represented by two horizontal deposits. The lowest, covering the entire base of the trench, was a deposit of dark grey clay silt (33; not illustrated in plan), up to 0.30m thick, which contained flint and charcoal as well as large assemblages of domestic and structural debris including 631 pottery sherds dated AD 60–80, 58 fragments of Roman brick and tile, and pieces of daub, shell and animal bone, a small quantity of slag, a complete iron nail, three iron nail fragments, fragments of a heavily corroded copper alloy bow brooch and a tiny piece of vessel glass. The deposit also contained charred and mineralised plant remains, and a small quantity of fish remains, recovered by sampling (sample <6>). The quantity of pottery, brick and tile in such a small area suggests that the material was used as hard core within the levelling material.

5.4 The uppermost layer of levelling material (39; not illustrated in plan) was thought during excavation to have formed the upper part of deposit (33), but it was clear when the sections were examined prior to final recording that it formed a separate horizon, comprising dark grey greenish-brown silty clay containing occasional charcoal flecks, up to 0.21m thick. Finds contained within this layer would have been allocated to

---

<sup>1</sup> Depths OD of deposits and features can be identified from the relevant section and plan drawings.

<sup>2</sup> The Flavian period starts AD 69 with the reign of Emperor Vespasian.



(33). The sections suggest that deposit (39) covered much of the area of the trench, except to the west where it was in part cut away by later activity.

#### *Primary clay floor sequence and occupation deposits*

Figs 3 and 4, Plate 2

- 5.5 Levelling deposits (33) and (39) may have been laid as preparation for the construction of a building, since overlying (39) was a sequence of clay floor and occupation deposits.
- 5.6 Three separate layers of clay flooring were identified, (32), (31) and (30), the primary floor (32) later replaced by (31), in turn replaced by (30). All are thought, from their nature, to have been laid within a building. Together they covered the entire area of the trench except towards the north-west where they were cut away by a later pit. Each floor deposit comprised a layer of yellow-brown slightly silty clay, up to 0.14m thick, in places scorched upon the surface and containing flecks of charcoal as well as a small quantity of animal bone (from (31) and (32)) and Roman brick and tile (from (31)). Fourteen fragments of pottery of late first-century AD date were recovered from floor (32), nine fragments of similar date from (30), whilst (31) yielded 83 pieces dated AD 60–80. Charred and mineralised plant remains, insect remains and a tiny quantity of fish remains were also recovered from clay floor (32) (sample <5>), some suggesting that food waste and other debris had been trampled into the floor.
- 5.7 Interleaved amongst the sequence of clay floors was a succession of occupation deposits (40), (42) and (29), of grey-green and green-brown clayey silt heavily flecked with charcoal, which would have formed during use of the building. Deposit (40) overlay primary floor (32), deposit (42) overlay floor (31) and deposit (29) overlay upper floor (30). The occupation horizons were generally quite thin (up to 0.04m thick) though the upper deposit (29) was up to 0.13m thick. A few fragments of animal bone, as well as a piece of hearth lining and 15 pottery sherds of late first-century AD date, were recovered from deposit (29).

#### *Subsequent levelling*

Fig. 3

- 5.8 The original floor sequence was overlain by levelling deposits, (27) and (26) (neither illustrated in plan), perhaps designed to bring the occupation level well above that of the water table. Together they formed a horizon up to 0.25m thick covering the entire area of the trench, except where they were cut away by later features. The lowest deposit (27) was orange-brown gritty silty clay containing flint, burnt daub, animal bone, oyster shell and charcoal fragments, as well as 43 fragments of late first-century pottery and 21 pieces of Roman brick and tile. The upper deposit (26) was mid grey silty clay containing oyster shell, flint and animal bone, together with 26 sherds of late first-century AD pottery and seven fragments of Roman tile.

### *Metalling and occupation*

Figs 3 and 5, Plate 3

- 5.9 Deposited across the south-eastern extent of levelling deposit (26), and covering the south-eastern half of the trench, was a layer of metalling (25) which appeared to be set within a slight hollow in the surface of the underlying levelling material. The layer had a fairly compact level surface and a defined north-western edge. The material probably represented a yard surface. It was formed of abundant flint gravel and occasional flint nodules set in a sparse dark grey-brown clayey silt matrix, up to 0.17m thick. Inclusions within the metalling comprised a small quantity of late first-century AD pottery, Roman tile, oyster shell and a piece of slag.
- 5.10 Overlying flint metalling (25) was an occupation deposit (20; not illustrated in plan) of light grey-green gritty clayey silt containing flint, oyster shell, charcoal, animal bone, Roman tile and 16 sherds of late first-century AD pottery. Also recovered from the material was a copper alloy stud. The deposit was up to 0.10m thick and covered the entire surface of the metalling except where it was cut away to the south by a later feature.
- 5.11 A small patch of mottled grey-brown and yellow-brown silty clay (38; not illustrated in plan) overlying occupation (20), not seen during excavation but visible during final recording of the south-west section, might have been a further remnant of overlying occupation material. It contained inclusions of oyster shell and was recorded with a thickness of up to 0.10m.

### *Secondary clay floor sequence and occupation deposits*

Figs 3 and 6, Plate 4

- 5.12 Overlying occupation deposit (20) was a further sequence of clay floor and occupation deposits probably lying within a building. The lowest clay floor of this sequence (18), covering much of the area of the trench, was up to 0.09m thick and formed of mottled grey and yellow-brown silty clay containing flint, oyster shell, charcoal, mammal bone, Roman tile and 39 sherds of pottery, the latest dated to the early to mid second century AD, as well as an iron nail and two copper alloy sheet fragments. Sampling of the clay floor for bioarchaeological remains (sample <3>) yielded small quantities of charred cereal and other plant remains, as well as fish bone, suggestive of the deposition of burnt household waste.
- 5.13 Cutting the south-west side of floor (18) was a linear beam trench [19], aligned north-west to south-east. The trench probably marked the position of an internal feature, perhaps a partition, within the structure. The feature was up to 0.05m deep, with a steeply angled side to the north-east and a flat base.
- 5.14 The timber which had probably been set within the beam trench was subsequently removed and the area where it had lain was re-floored with clay. Infilling the north-eastern edge of the probable beam trench was a deposit of mottled light orange-brown and mid brown silty clay (17; not illustrated in plan), which perhaps fell into the trench when the timber was extracted. Two sherds of pottery dated to the late first-

century AD and a piece of Roman tile derived from the deposit. The remainder of the beam trench was filled by overlying clay deposit (16), which was up to 0.13m thick. A small patch of charcoal (15), up to 0.09m thick, spread across the north-western edge of clay deposit (16) and across part of underlying clay floor (18), suggesting that clay floor (18) remained in use and clay deposit (16) represented patching material laid once the partition had been removed. Charcoal deposit (15) contained pottery of late second- to mid third-century AD date, and an iron hobnail fragment, together with tiny quantities of hammerscale, fish remains and charred plant material recovered from a sample (<2>), the latter material suggesting the burning of waste animal bedding.

- 5.15 The area was subsequently re-floored with a broader expanse of clay flooring (14; not illustrated in plan), overlying charcoal deposit (15). The clay floor covered much of the area of the trench except where it was cut away by later features. It was formed of orange-brown silty clay, up to 0.08m thick, containing rare flint, oyster shell and charcoal.
- 5.16 Later activity was represented by a sequence of occupation and clay deposits identified only within the north-eastern corner of the trench (not illustrated in plan). Overlying clay floor (14) was an occupation deposit of dark grey clayey silt (12), up to 0.09m thick, containing oyster shell, animal bone, charcoal flecks, two iron nails, fragments of Roman tile and 20 sherds of pottery dated to the late first to early second century AD. Another clay floor deposit (9) lay above, up to 0.04m thick and formed of mid orange-brown silty clay containing chalk, charcoal flecks and four sherds of pottery dated to the second century AD. An occupation deposit of dark grey silt (6), up to 0.03m thick, lay above, capped by a final clay floor (5), up to 0.09m thick, of mid orange-brown silty clay flecked with chalk and charcoal.

#### *Pits and a feature*

Figs 3 and 7

- 5.17 The Roman structure represented by remains seen within the trench appears to have gone out of use and the ground was cut by a cess pit and two features.
- 5.18 Cutting clay floor (14) were a cess pit [8] and a feature [24]. The cess pit was sub-rectangular in plan, with steeply angled sides which curved in to a fairly level base, and a depth of 0.66m. The primary fill (28) comprised waterlogged brown organic silt which was sampled for bioarchaeological remains (sample <4>), yielding a rich assemblage of waterlogged, mineralised and part waterlogged/part mineralised plant remains as well as some charred plant remains and abundant insect remains, the plant debris largely representative of food remains. Hand recovered was a small quantity of CBM and animal bone, a large iron nail and an assemblage of pottery, some dated to the late first century to second century AD and a few sherds of late third- to fourth-century date. The fill lipped up against the sides of the cut and was up to 0.38m deep. The upper fill (7) was grey-brown silty clay containing Roman tile, animal bone, oyster shell, charcoal and nine sherds of pottery dated to the early to mid second century AD.

- 5.19 Feature [24] was only visible on the far south-western side of the trench. It had a straight edge, a steeply angled curving side which cut in to an uneven base, and was up to 0.22m deep. The fill (23) comprised dark grey silty clay containing charcoal flecks.
- 5.20 Feature [22], cutting clay floor (5), lay along the northern side of the trench. It had a curving upper edge with a steeply angled side curving in to a slightly curved, undulatory base, and was up to 0.64m deep. The cut contained a single fill (21) of dark grey silty clay containing charcoal and Roman tile.

### *Modern features and deposits*

Figs 3 and 8

- 5.21 Cutting the archaeological remains were a number of modern features and deposits. Feature [36], running across the south-western side of the trench, cut across the upper levels of cess pit [8] and feature [24], and into clay floor deposit (9). It had gently sloping sides and a flat base and was up to 0.32m deep. The feature was filled by a single deposit of dark brown silty clay (13) containing abundant flint as well as oyster shell, charcoal and redeposited Roman tile and pottery. The feature may have been cut to form a consolidation deposit, prior to modern building construction.
- 5.22 Cutting the extreme north-west edge of feature [36] was a modern manhole (cut [11], fill (10)), cut to a depth of up to 0.48m.
- 5.23 Overlying the manhole, and extending across much of the trench, was a deposit of grey-brown silty clay (4; not illustrated in plan), up to 0.05m thick, containing chalk and flint.
- 5.24 Cutting layer (4) was a modern service trench containing a ceramic pipe (cut [3], fill (2)) crossing the northern corner of the trench. It cut to a depth of up to 0.40m.
- 5.25 A modern concrete footing was visible in section in the eastern corner of the trench (cut [45], fill (44)), cutting to a depth of up to 0.36m.
- 5.26 Capping the trench was a concrete floor (1, not illustrated in plan), up to 0.11m thick.

## **6. The Roman pottery**

Andrew Savage

### *Summary*

- 6.1 The total amount of pottery recovered by hand comprised 991 sherds, 44112g, 1253% VRE (vessel rim equivalents).
- 6.2 Most of the hand-excavated pottery (64% by sherd count) came from context 33, a dump-deposit. Although the context is constrained in its stratigraphic relationships,

the assemblage is significant in size and notably homogenous in character, appearing to date between around AD 60–80. It contains little earlier, residual material and, given the scarcity of published pottery groups of this date from Canterbury, it may prove useful in future for broad comparative purposes. A brief discussion of this material is therefore presented.

- 6.3 The remaining hand-excavated pottery was recovered from 20 other contexts and is summarized below. It is also mostly of later first-century date, and there is an almost total absence of late Roman material.
- 6.4 All of the pottery is characteristic of that found within the city, as a by-product of domestic occupation.

### ***Methodology***

- 6.5 Following the pattern established by the Canterbury Archaeological Trust for the analysis of Romano-British pottery recovered from excavations in Canterbury, all of the pottery from the site excavated by hand was examined by eye and with a x20 hand-lens, and was divided into fabrics using the guidelines established by Peacock (1977) and Orton (1977). The fabrics in each layer were quantified by sherd-count, weight and ‘estimated vessel equivalents’ (EVE’s) using rims (Orton 1975) and the latter values are hereafter referred to as VRE’s (‘vessel rim equivalents’). A catalogue of the fabrics and forms identified within each context is presented in Table 2 (below).
- 6.6 A small amount of additional material (103 sherds, 733g) was recovered from sieved soil samples. Brief examination suggested that it adds nothing of significance to any aspect of the site narrative and the material is therefore not considered further in this report. All other discussion and reference to quantities excludes the sieved material.
- 6.7 Form variants are described using terms in common usage, with reference to published parallels where appropriate.
- 6.8 No detailed fabric descriptions are given in this report. Fabrics are usually referred to by their common names and references are made to descriptions published elsewhere, where appropriate. A quantified list of all fabrics, identified by common name and CAT reference series alpha-numeric fabric code, can be found in Table 1 (below), which also includes principle description references.
- 6.9 It should be noted that in both Tables 1 and 2 nearly all of the grey Canterbury sandywares are categorized as fabric R4\_5. Fabric R4 describes an early product of so-called ‘north-Gaulish’ type dated *c* AD 60–80, whereas R5 describes later Flavian-Antonine products. In practise they can usually only be distinguished from one another on the basis of typological characteristics. On this site it is highly likely that a large proportion of the R4\_5 sherds (perhaps all of them from (33), below) are

actually R4, as almost all of the forms identified are of ‘north-Gaulish’ type. A very few sherds have been recorded as R5.

- 6.10 Black-burnished ware Fabric 2 is referred to as BB2.
- 6.11 Form variants in fine Upchurch-type ware are described using the typology established by Monaghan in his study of the pottery of the Upchurch and Thameside pottery industries (Monaghan 1987). Similarly, form variants in ‘Belgic’ grog-tempered ware are described using the typology established by Thompson (1982).
- 6.12 All of the pottery was spot-dated and assessed, with reference to the excavator, to establish a strategy for further analysis.

***Pottery supply*** (See fabric list, Table 2)

*The coarsewares*

- 6.13 The coarsewares comprised *c* 77% of the site assemblage, by sherd count.
- 6.14 Approximately 94% (by sherd count) of the coarse pottery is of Canterbury/East Kent manufacture and represents types of grog-tempered and sand-tempered coarsewares which are widely distributed within that area. The remaining 6% mostly represents south Spanish Dressel 20 olive oil amphorae, with the addition of a few sherds of Verulamium Ware, south Gaulish wine amphorae and possible North Gaulish mortaria. All of these wares occur widely in Kent and south-east England.
- 6.15 ‘Belgic’ style grog-tempered pottery accounts for *c* 76% of the coarse pottery. Such wares continued to be made in large quantities for several decades after the Roman conquest, and their preponderance here reflects the early date of the assemblage. Almost all of the coarse sand-tempered pottery was made at Canterbury and these wares constitute *c* 15% of all the coarse pottery by sherd count. It should be noted that about one third of this amount comprises Canterbury pink-buff sandyware. This is the oxidised version of the Canterbury grey sandywares, and as such it is usually quantified as a coarseware fabric. It was, however, mostly used to make flagon forms that are generally thought of as ‘finewares’ and its status is therefore somewhat ambiguous.

*The finewares*

- 6.16 The finewares comprised *c* 23% of the site assemblage, by sherd count.
- 6.17 Only approximately 11% of the fine pottery by sherd count is of local/East Kent manufacture (see comments re Canterbury pink-buff sandyware in ‘The coarsewares’, above). It is all fine-textured ‘Belgic’ grog-tempered ware, a fabric which is thought to have gone out of use around AD 70–80. Most of the remainder comprises north Kent reduced and oxidised ‘Upchurch’-types (*c* 34%) and south

Gaulish samian (*c* 45%). The latter was not imported beyond the end of the first century AD, and the high proportion of it found on this site emphasizes the early date of the pottery assemblage. Although samian from central Gaul was imported in large quantities throughout the second century and eastern Gaulish samian was imported into the early third century, these two types constitute only *c* 3% of the finewares on this site. Material of later Roman date is restricted to three small worn fragments (*c* 1%) of Oxfordshire colour-coated ware, probably from the same vessel, which were recovered from context 28 (the primary fill of cess pit [8]).

### *Dump deposit 33*

- 6.18 Deposit 33 yielded 631 sherds, 32994g, 739.9% VRE.
- 6.19 A full quantified fabric list and summary of forms identified is presented in Table 2.
- 6.20 Perhaps the most striking feature of this assemblage is its homogeneity. The range of material represented is limited to that found in Canterbury in pre- and early Flavian deposits. Although some of the wares present (the Canterbury pink-buff sandywares and ‘Upchurch’ type finewares, for example) continued in use into the second century, nothing was found that must post-date the early Flavian period, and a date of *c* AD 60–80 is suggested.
- 6.21 The suite of finewares is dominated by two fabrics. Firstly, south Gaulish samian (*c* 46% of the finewares by sherd count), a ware characteristic of the mid- and later first century AD. Identified forms include Drag 18 platters, Drag 27 cups and Drag 29 bowls. Secondly, reduced and oxidised north Kent ‘Upchurch’ types (*c* 34%). Identified forms are all early products of that industry and include cordoned bowls (Monaghan class 4J), carinated beakers (classes 2G1 and 2G2) and a neckless globular beaker (class 2H2). Other imported continental finewares are restricted to a few sherds of Early Gaulish type that are found in very limited quantities in deposits dated later than around AD 70. They include a fragment of a CAM16 terra nigra platter. From around that date these wares were replaced by other Gaulish and south-east English finewares, none of which were found in this deposit.
- 6.22 The suite of coarsewares is dominated by a single fabric, ‘Belgic’ coarse grog-tempered ware (*c* 85% of the coarsewares by sherd count). All of the vessels represented appear to be jars, mostly large everted-rim storage jars cf Thompson Type C6.1 (Plate 5). The largest of these has a rim diameter of *c* 35cm, although they mostly range between *c* 20–26cm. One of them bore an incised ‘potter’s mark’ on its shoulder (Plate 6). These, whilst not common, are occasionally found on ‘Belgic’ grog-tempered vessels and are generally interpreted as makers’ marks. Other jar types identified included plain, everted-rimmed Type B1, and round-shouldered, bead or everted rimmed Type C4. Many of the jars have cordoned necks or shoulders, and many bodysherds are decorated with oblique or vertical ‘combed’ or ‘furrowed’ decoration (Plate 7).

- 6.23 The nature of the grog-tempered ware therefore suggests the possibility of an exclusively post-conquest origin, whilst the quantity suggests a pre- or early Flavian date.
- 6.24 The other significant coarsewares are grey and pink-buff Canterbury sandywares (together *c* 8% of the coarsewares by sherd count). All of the identified greyware forms are made in a north Gaulish style. They include bead-rim and everted-rim jars and a flange-rim carinated bowl (Plate 8). Such vessels are known to have been made at two kiln sites in Canterbury, at St Stephen's and Reed Avenue, perhaps by an immigrant potter, between about AD 60–80 (Pollard 1988, 43). A concomitant absence of characteristic Canterbury sandyware forms of later date, such as reed-flange bowls and lid-seated jars, must also be considered highly significant.
- 6.25 Three imported coarsewares were identified. There were three sherds of Verulamium-region flagonware and 18 sherds from south Spanish Dressel 20 olive oil amphorae. The former is unlikely to have been made much earlier than about AD 70, whilst the latter were imported from the first to third centuries AD. It is by far the commonest type of Roman amphora found in Britain. One or two sherds classified here as Dressel 20 are atypically thin in section and it is possible that they may represent an earlier first-century variant, sometimes known as Oberaden 83. Additionally there were four sherds representing north Gaulish (possibly south-east English) mortaria of Hartley's Group I/II (Hartley 1982).

#### *The other pottery*

- 6.26 The other pottery recovered by hand excavation comprised 360 sherds, 11118g, 513% VRE.
- 6.27 A list of fabrics and summary of forms identified within each context is presented in Table 1.
- 6.28 Dating information was supplied to the excavator as an aid to stratigraphic analysis. The material is otherwise of little intrinsic interest. What should be noted, however, is that very little of it appears to post-date the later first century AD. A very few sherds (BB2 and central/eastern Gaulish samian in contexts 15 and 18, for example), indicate some activity in the second and perhaps early third centuries AD, but with two minor exceptions there are none of those coarse- and finewares which are predominant in Canterbury in the third and fourth centuries. The first comprises a single sherd of hard-fired, grog-tempered 'Native Coarse Ware' from context 10. This is one of the commonest late second- to third-century AD coarsewares in East Kent. The second comprises three small, worn sherds of Oxfordshire colour-coated ware, from context 28. This ware is common in Canterbury in deposits dating between *c* AD 250–400.



<b>Fabric</b>	<b>No. of sherds</b>	<b>Wt (g)</b>	<b>VRE%</b>	<b>Description and principle references</b>
<b>B1</b>	25	920	34.5	Belgic' grog-tempered ware (fine) (Thompson 1982; Pollard 1995)
<b>B2</b>	582	33342	402.1	'Belgic' grog-tempered ware (coarse) (Thompson 1982; Pollard 1995; Tomber and Dore 1998)
<b>B6</b>	2	33	0	'Belgic' shell-tempered ware (coarse) (Pollard 1987; Monaghan 1987)
<b>B8_9</b>	10	241	18.24	'Belgic' sand-tempered ware (coarse and fine) (Pollard 1995)
<b>B/ER7</b>	1	8	0	Early Gaulish white-cream beakerware, Rigby fabric IB (Tomber and Dore 1998)
<b>B/ER11</b>	1	11	0	Early Gaulish white flagon ware, Rigby fabric WW1 (Tomber and Dore 1998)
<b>B/ER12</b>	2	50	14.6	Early Gaulish Terra Nigra (Tomber and Dore 1998)
<b>B/ER15</b>	1	4	0	Chaff-tempered ware (salt vessels) (Barford 1982, 1995)
<b>R1</b>	2	176	11.2	Hard-fired, grog-tempered 'Native Coarse Ware' (Pollard 1995)
<b>R1.2</b>	1	8	0	Grog-tempered ware, transitional between B2 and R1 (Pollard 1995)
<b>R4_5</b>	69	658	220.7	R4 = Reduced Canterbury sandyware, in north Gaulish typological style (coarse); (Pollard 1995)
<b>R5</b>	4	223	16.8	Reduced Canterbury sandyware, in Flavian-Antonine style (coarse) (Pollard 1995)
<b>R9</b>	41	574	79.52	Oxidised (pink-buff) Canterbury sandyware (coarse and fine) (Pollard 1995)
<b>R14</b>	6	139	38.5	Black-burnished ware, fabric 2 (BB2), mostly of north Kent (Cooling and Cliffe) manufacture (Monaghan 1987; Tomber and Dore 1998)
<b>R15</b>	3	186	0	Verulamium region ('Brockley Hill') oxidised sandyware (coarse) (Tomber and Dore 1998)
<b>R16</b>	69	746	167.5	Fine Upchurch-type ware (reduced) (Tomber and Dore 1998; esp Monaghan 1987)
<b>R18</b>	9	284	0	Fine Upchurch-type ware (purple-grey, some with white or cream slip)
<b>R27</b>	3	6	0	Mica-dusted ware; (Marsh 1978)
<b>R29</b>	1	6	0	Highly micaceous ware. In this case a fine-grained fabric, possibly of local manufacture
<b>R42</b>	104	1367	176.6	South Gaulish samian (Webster 1993; Tomber and Dore 1998)
<b>R43</b>	6	155	27.4	Central Gaulish samian (Webster 1993; Tomber and Dore 1998)
<b>R46</b>	1	9	0	Eastern Gaulish samian (Webster 1993; Tomber and Dore 1998)
<b>R50</b>	29	3222	0	South Spanish Dressel 20 amphora = Peacock and Williams class 25 (Peacock and Williams 1986; Tomber and Dore 1998)
<b>R56</b>	3	566	0	South Gaulish ?Pelichet 47 amphora = Peacock and Williams class 27 (Peacock and Williams 1986; Tomber and Dore 1998)
<b>R61</b>	8	1003	45.6	?Gaul/S.E. England Fabric 1 mortarium (Hartley 1981)
<b>R65</b>	1	54	0	Verulamium fabric 8 mortarium (Tomber and Dore 1998)
<b>R71</b>	1	13	0	Misc. pink-buff fabrics (Pollard 1995)
<b>R87</b>	1	29	0	Gaulish white flagon ware, Rigby fabric WW2 (Tomber and Dore 1998)
<b>R89</b>	2	59	0	Gaulish white flagon ware, Rigby fabric WW4 (Tomber and Dore 1998)
<b>LR10</b>	3	20	0	Oxfordshire red/brown colour-coated ware (Young 1974, Tomber and Dore 1998)
<b>TOTALS</b>	<b>991</b>	<b>44112</b>	<b>1253</b>	

*Table 1. Roman pottery fabrics from all contexts, quantified by sherd-count, weight in g and VRE%. Alpha-numeric codes refer to the CAT fabric reference series.*

Context	Fabric	No. of sherds	Wt (g)	VRE%	Form-types identified
0	B2	1	13	0	Jar
2	R43	1	11	0	Dish
7	B2	6	590	10.6	Jar
7	R16	1	1	0	Closed form
7	R42	1	2	6.7	Cup
7	R43	1	8	0	Cup
	<b>Totals</b>	<b>9</b>	<b>601</b>	<b>17.3</b>	
9	B2	2	34	0	Car
9	R16	1	1	0	Closed form
9	R43	1	3	2.2	Dish
	<b>Totals</b>	<b>4</b>	<b>38</b>	<b>2.2</b>	
10	B2	8	177	0	Jar
10	R1	1	19	11.2	Jar
10	R4_5	1	3	11.6	Lid
10	R42	1	3	0	Open form
	<b>Totals</b>	<b>11</b>	<b>202</b>	<b>22.8</b>	
12	B2	3	160	6.7	Jar
12	R4_5	1	21	0	Lid
12	R9	2	30	0	Flagon
12	R16	5	26	0	Beaker
12	R42	4	26	0	Dish; bowl
12	R50	5	136	0	Amphora
	<b>Totals</b>	<b>20</b>	<b>399</b>	<b>6.7</b>	
13	B2	3	45	0	Jar
13	R1.2	1	8	0	Jar
13	R5	2	130	0	Lid; jar
13	R9	1	15	0	Flagon
13	R14	5	131	38.5	Pie-dish; dog-dish
13	R16	2	22	0	Open form
13	R29	1	6	0	Closed form
13	R50	1	13	0	Amphora
13	R71	1	13	0	Flagon
	<b>Totals</b>	<b>17</b>	<b>383</b>	<b>38.5</b>	
15	B2	3	123	0	Jar
15	R1	1	157	0	Jar
15	R4_5	4	94	21.8	Bowl; lid
15	R9	2	10	0	Closed form
15	R16	3	49	0	Closed form
15	R46	1	9	0	Dish
15	R56	1	48	0	Amphora
	<b>Totals</b>	<b>15</b>	<b>490</b>	<b>21.8</b>	

17	<b>R9</b>	2	23	0	Flagon
17	<b>R42</b>	2	13	0	Dish
	<b>Totals</b>	<b>2</b>	<b>23</b>	<b>0</b>	
18	<b>B2</b>	6	37	0	Jar
18	<b>B/ER15</b>	1	4	0	Closed form
18	<b>R5</b>	2	93	16.8	Bowl
18	<b>R9</b>	4	36	23.52	Flagon
18	<b>R14</b>	1	8	0	Dish
18	<b>R16</b>	7	24	18.5	Platter
18	<b>R42</b>	10	158	47	Dish; cup; bowl
18	<b>R43</b>	3	133	25.2	Dish
18	<b>R50</b>	1	169	0	Amphora
18	<b>R56</b>	2	518	0	Amphora
18	<b>R61</b>	2	60	2.8	Mortarium
	<b>Totals</b>	<b>39</b>	<b>1240</b>	<b>133.82</b>	
20	<b>B2</b>	9	490	7.8	Jar
20	<b>R4_5</b>	2	27	7.8	Jar
20	<b>R16</b>	1	15	16.2	Bowl
20	<b>R42</b>	4	58	0	Dish; bowl
	<b>Totals</b>	<b>16</b>	<b>590</b>	<b>31.8</b>	
25	<b>B2</b>	3	67	0	Jar
25	<b>R4_5</b>	3	34	0	Closed form
25	<b>R15</b>	1	54	0	Mortarium
25	<b>R50</b>	1	274	0	Amphora
	<b>Totals</b>	<b>8</b>	<b>429</b>	<b>0</b>	
26	<b>B2</b>	13	445	0	Jar
26	<b>B6</b>	2	33	0	Jar
26	<b>R4_5</b>	2	42	25.2	Jar
26	<b>R16</b>	2	38	0	Beaker
26	<b>R42</b>	5	52	31.9	Cup; dish; bowl
26	<b>R61</b>	2	213	15.1	Mortarium
	<b>Totals</b>	<b>26</b>	<b>823</b>	<b>72.2</b>	
27	<b>B1</b>	1	13	0	Flagon
27	<b>B2</b>	19	583	0	Jar
27	<b>B8_9</b>	2	33	0	Closed form
27	<b>R4_5</b>	6	115	12.9	Jar; bowl; lid
27	<b>R9</b>	6	25	0	Closed form
27	<b>R16</b>	5	100	25	Beaker
27	<b>R42</b>	3	22	0	Bowl
27	<b>R87</b>	1	29	0	Flagon
	<b>Totals</b>	<b>43</b>	<b>920</b>	<b>37.9</b>	
28	<b>B2</b>	7	435	0	Jar
28	<b>R4_5</b>	2	102	26.3	Jar
28	<b>R16</b>	1	5	0	Unclassified

28	<b>R42</b>	2	11	12.9	Cup
28	<b>LR10</b>	3	20	0	Open form
	<b>Totals</b>	<b>15</b>	<b>573</b>	<b>39.2</b>	
29	<b>B2</b>	7	169	8.4	Jar
29	<b>R4_5</b>	2	10	0	Closed form
29	<b>R42</b>	6	74	10.4	Dish; bowl
	<b>Totals</b>	<b>15</b>	<b>253</b>	<b>18.8</b>	
30	<b>B1</b>	1	17	0	Flagon
30	<b>B2</b>	4	138	0	Jar
30	<b>R4_5</b>	3	33	0	Closed form
30	<b>R42</b>	1	93	7.3	Dish
	<b>Totals</b>	<b>9</b>	<b>281</b>	<b>7.3</b>	
31	<b>B1</b>	3	45	0	Flagon/jug
31	<b>B2</b>	59	2150	7	Jar
31	<b>R4_5</b>	6	90	0	Closed form
31	<b>R9</b>	9	175	56	Flagon
31	<b>R16</b>	3	25	0	Closed form
31	<b>R42</b>	1	7	0	Bowl
31	<b>R50</b>	2	265	0	Amphora
	<b>Totals</b>	<b>83</b>	<b>2757</b>	<b>63</b>	
32	<b>B2</b>	10	575	0	Jar
32	<b>R9</b>	1	5	0	Flagon
32	<b>R16</b>	1	10	0	Closed form
32	<b>R42</b>	1	13	0	Bowl
32	<b>R50</b>	1	265	0	Amphora
	<b>Totals</b>	<b>14</b>	<b>868</b>	<b>0</b>	
33	<b>B1</b>	20	845	34.5	Flagon platter cup
33	<b>B2</b>	412	26920	361.6	Jar
33	<b>B8_9</b>	6	195	18.24	Jar; lid
33	<b>B/ER7</b>	1	8	0	Beaker
33	<b>B/ER11</b>	1	11	0	Flagon
33	<b>B/ER12</b>	2	50	14.6	Platter
33	<b>R4_5</b>	37	87	115.1	Bowl; jar; lid
33	<b>R9</b>	14	255	0	Flagon
33	<b>R15</b>	3	186	0	Flagon
33	<b>R16</b>	37	430	107.8	Beaker bowl jar
33	<b>R17</b>	9	284	0	Flagon
33	<b>R27</b>	3	6	0	Beaker
33	<b>R42</b>	63	835	60.4	Platter; cup; bowl
33	<b>R50</b>	18	2100	0	Amphora
33	<b>R61</b>	4	730	27.7	Mortarium
33	<b>R89</b>	1	52	0	Flagon
	<b>Totals</b>	<b>631</b>	<b>32994</b>	<b>739.94</b>	
34	<b>B2</b>	7	191	0	Jar
34	<b>B8_9</b>	2	13	0	Unclassified

34	<b>R89</b>	1	7	0	Flagon
	<b>Totals</b>	<b>10</b>	<b>211</b>	<b>0</b>	
	<b>TOTALS</b>	<b>991</b>	<b>44112</b>	<b>1253</b>	

*Table 2. Catalogue of the Roman pottery. Pottery fabrics are identified by their CAT fabric reference series codes (see Table 1 for a concordance of reference codes and common names). They are quantified, per context, by sherd-count, weight in g and VRE%. Generic form-types identified are listed as present. Forms are classified as 'closed' or 'open' when a more specific identification was not possible for any sherds in that context*

## **7. The metalwork**

Luke Barber and Elke Raemen

- 7.1 The excavation recovered a very small assemblage of metalwork: nine pieces of iron (126g) and seven pieces of copper alloy (4g). All items are in poor condition and the ironwork in particular has a notable coverage of adhering corrosion products. The entire assemblage was x-rayed as part of the analysis, this helping to clarify the exact form of some of the ironwork. The entire assemblage, which appears to all be of Roman date, has been fully listed and described on pro forma for archive.
- 7.2 The largest group of items consists of iron nails. One complete 66mm long example (with 20mm diameter head) and three other fragments were recovered from first-century layer (33). Part of a large nail (104mm+ long) was recovered from pit [8] (fill (28)) and two further general purpose nails (one 60mm long with a 19mm diameter head) were recovered from occupation layer (12). The final nail fragment is badly distorted, but the x-ray suggests it to be another general purpose type (from floor (18)).
- 7.3 Just two items associated with dress were recovered. Layer (33) produced four scraps from a heavily corroded bow brooch (with flat-sectioned bow). Too little is present to identify the type closely but it is of a general type that would be very much in keeping with the associated first-century ceramic date. The other item of dress consists of a hobnail fragment from layer (15).
- 7.4 The final two items consist of a fragment from a copper alloy stud with 15mm diameter domed head (from layer (20)) that could have been used for a number of tasks, and two copper alloy sheet fragments of no obvious function from floor (18).

## **8. The plant and insect remains**

Wendy Carruthers and Enid Allison

### ***Introduction***

- 8.1 The small trench excavated at No. 49 St Peter's Street revealed a sequence of layers relating to occupation of a building and levelling primarily dated by pottery to the

second half of the first century AD. Three features cut from the upper levels of the sequence included cess pit [8] which cut down into waterlogged levels. Waterlogged deposits are of great importance in preserving a wide range of organic materials that do not survive in other archaeological situations. Waterlogged Roman deposits have not previously been investigated in Canterbury so the cess pit provided a unique opportunity to obtain information about Roman diet and living conditions in a major Roman town. In addition, the lowest silty deposit in the sequence, which appears to have been a layer of alluvial material, was waterlogged, potentially preserving information about the local environment in the early Roman period.

### ***The samples***

- 8.2 Bulk environmental samples were taken from the following deposits. Contexts are listed chronologically from the earliest levels to the latest.
- 8.3 *Context 34 (sample <7>):* a greenish/grey silt producing pre-Flavian pot, burnt daub, CBM, bone and marine shell. Possibly alluvial silts deposit.
- 8.4 *Context 33 (sample <6>):* a deliberate dump to raise the ground level consisting of clayey silt, with ‘Belgic’ and early Roman pot, oyster, bone, slag, CBM, glass and charcoal. Most of the pottery was recovered from this layer (631 sherds) representing an accumulation dating to around AD 60–80.
- 8.5 *Context 32 (sample <5>):* clay floor and occupation debris with late first-century pottery.
- 8.6 *Context 18 (sample <3>):* clay floor and occupation layer, with pot mostly dating to the late first century AD but with some early to mid second-century sherds.
- 8.7 *Context 15 (sample <2>):* dump of burnt material containing abundant charcoal fragments and pottery dating to the late second to mid third century AD.
- 8.8 *Context 28 (sample <4>):* the lowest waterlogged fill of cess pit [8] cut from the upper levels of the Roman sequence. Pot from the late first century to second century AD was found, together with a few sherds possibly as late as the third or fourth centuries comprising fragments of Oxfordshire colour-coated ware.

### ***Methods***

#### ***Sample processing***

- 8.9 The bulk samples had volumes of 6–35 litres. Eight-litre sub-samples (see the bottom of Table 3) were processed from five samples but only 6 litres was available for sample <5>. Processing methods followed Kenward *et al* (1980). ‘Washovers’ consisting of the bulk of the organic component from each sample were collected on 0.3mm mesh, and heavy residues on nested 2mm and 0.3mm sieves. Four of the deposits contained little organic material preserved by waterlogging and all three fractions from these samples were air-dried for ease of handling and storage. Two sub-samples contained waterlogged organic material and all fractions recovered were

kept wet. The washovers from these samples were subjected to paraffin flotation for insect remains (50% of the washover in the case of sample <4>).

#### *Plant remains*

8.10 Washovers, residues from paraffin flotation, <1mm dried residues and sorted plant remains from the >2mm residues were examined. After rapidly scanning the various fractions a range of strategies was adopted to obtain the maximum amount of information within the available resources.

1. Samples <2> and <3> contained large amounts of charcoal but very few identifiable charred plant remains. The deposits were not waterlogged or mineralised. Twenty-five per cent of the flot was fully sorted in order to characterise the types of burnt waste present.
2. Sample <4> from the basal fill of cess pit [8] was rich in waterlogged, part waterlogged/part mineralised, and mineralised plant remains, as well as producing a few charred plant remains. In order to obtain the maximum information about foods being consumed 100% of the coarse washover (>1mm) and residue (>0.3 mm) was sorted and 25% of the fine washover was sorted (>0.3 and <1mm). Since almost all of the economically important taxa were recovered from the >1mm fractions (apart from some strawberry (*Fragaria* cf. *vesca*) seeds) very little information was lost using this method. Final figures for the few taxa present in the fine flot were obtained by extrapolation.
3. 100% of the dried washover and >1mm residue were sorted from sample <5>.
4. 100% of the dried washover was sorted from sample <6>.
5. 100% of the wet >0.3mm flot (that had previously been subjected to paraffin flotation) from waterlogged sample <7> was sorted.

#### *Insect remains*

8.11 Beetles (Coleoptera) and bugs (Hemiptera) were removed from the paraffin flots onto moist filter paper for identification by comparison with modern insect material and reference to standard published works using a low-power stereoscopic zoom microscope (x7 – x45). Minimum numbers of individuals and taxa of beetles (Coleoptera) and bugs (Hemiptera) were recorded, and taxa were divided into broad ecological groups following Kenward *et al* (1986) and Kenward (1997) (see Tables 4 and 5 for groups used). Beetle nomenclature follows Duff (2012). The abundance of other invertebrates in the flots was recorded semi-quantitatively using a four-point scale.

#### *Archiving*

8.12 Plant and insect remains from waterlogged/mineralised samples <4> and <7> are stored in industrial methylated spirits (IMS). The remaining material is stored dry.

## Results

- 8.13 The results of the plant remains analysis are presented in Table 3. Nomenclature and most of the habitat information follows Stace (2010) with Zohary and Hopf (2000) being used for cereal taxonomy. The main statistics obtained from the insect analysis are shown in Table 4 and lists of insects and other invertebrates recorded from the two waterlogged samples are provided in Table 5.

### *Preservation of plant material*

- 8.14 A number of different types of preservation was encountered in the six samples from this small trench, including charring in all six samples, waterlogging resulting in preservation under anoxic conditions in samples <4> and <7>, and different degrees of mineralisation in samples <4>, <5> and <6>. With certain tough-coated fruits and seeds, for example elderberry (*Sambucus nigra*), it is difficult to determine whether partial mineralisation and/or anoxic conditions have been responsible for the survival of the plant remains. Uncharred elderberry seeds have been shown to have survived in damp soils from as far back as the Anglo-Saxon period. Radiocarbon dates of  $1190 \pm 60$  bp (OxA-3067) and  $1340 \pm 70$  bp (OxA-3068) were obtained from elderberry seeds in non-waterlogged samples from The Shires, Leicester (Moffett 1993). While some items such as the sheets of possible apple skin are clearly mineralised, with the soft tissues having been replaced by hard, amber-coloured calcium phosphate, other plant remains appear to exist in a part-waterlogged/part-mineralised state with some tissues remaining soft and pliable indicating waterlogging and others tissues being impregnated by calcium phosphates and becoming brittle. This is the case with many of the *Prunus* sp. stones recovered from cess pit fill context 28. Some of the fruit stones were hollow and woody (with the seed having rotted away) resembling normal waterlogged remains while others (all sloes) retained some or all of their flesh (mesocarp) in a brittle, mineralised form with the seed having been at least partially mineralised within the stone. Apple pips were often preserved with the embryo and cotyledons having been mineralised but the seed coat (testa) remaining flexible in a waterlogged state.
- 8.15 Since it was not practical or desirable to dissect all of the plant remains to determine their individual states of preservation, the data has been presented in Table 3 with four possible states of preservation; no brackets = charred, ( ) = waterlogged, [ ] = mineralised and ([ ]) = partially waterlogged and part mineralised, at least in some cases (but not necessarily in all). The precise method of preservation for each item is only of academic interest. In general the findings suggest that mineral-rich deposits such as the lowest fill of cess pit [8] were probably kept damp at all times but not necessarily as waterlogged as was found at the time of excavation, i.e. the water table had probably fluctuated over the past c. two millennia. This has allowed mineralisation to take place in the damp but not fully waterlogged periods while remaining sufficiently moist to ensure, for example, the survival of abundant apple endocarp fragments (the scaly membranes within the apple core) and small fragments of corn cockle (*Agrostemma githago*) seed coat due to the anoxic conditions. Similar



conditions were found in highly organic rubbish deposits in the Roman city ditch at Aldersgate, London (Carruthers 2001, 99).

- 8.16 In contrast, the alluvial deposit context 34 (sample <7>) showed no signs of mineralisation either because the deposits had remained fully waterlogged or the quantities of decaying organic waste were not high enough to provide sufficient concentrations of calcium and phosphate. Samples <5> and <6> contained frequent fully mineralised remains but no waterlogged material survived, indicating that the conditions had probably been moist in the levelling deposit and the floor level, but not so wet as to have preserved plant material by waterlogging. In samples <2> and <3> only charred plant remains were preserved.

#### *Characterisation of the assemblages*

##### *Alluvium, context 34, sample <7>*

- 8.17 This sample produced the widest range and highest concentration of waterlogged plant remains, although some taxa showed signs of decay indicating that conditions had not been 100% anoxic. It is notable that no obligate aquatic plants were represented in the assemblage, though a few taxa can grow as marginals, such as mint (*Mentha* sp.) and sedges (*Carex* spp.). A small assemblage of poorly preserved terrestrial beetle and bugs was also recovered (23 individuals of 20 taxa).
- 8.18 Seeds of three plant taxa were so numerous that they were not counted; stinging nettle (*Urtica dioica*), elderberry and poppy (*Papaver rhoeas/hybridum/argemone*). The first two of these are indicative of nutrient-rich habitats, while the poppies are annual weeds of arable and waste places. Other indicators of richly fertile places were hemlock (*Conium maculatum*), henbane (*Hyoscyamus niger*) and white horehound (*Marrubium vulgare*), all of which grow in open rough ground and waste places (including short grassland) where nutrient enrichment with dung or organic waste has occurred. Evidence for open grassland came from taxa such as buttercup (*Ranunculus acris/bulbosus/repens*), St John's wort (*Hypericum*), and for damp grassland or marsh from sedges (*Carex* spp) and mint (*Mentha*). Generally these provide a picture of open grassland, with nutrient-enriched areas due to the dumping of domestic or animal waste. This interpretation was supported by the insect remains which chiefly indicated the presence of wet organic litter including some material dumped from within buildings. Nettle ground bug (*Heterogaster urticae*), as its name suggests, would have been found on nettles growing in a relatively open, sunny situation. Trees were suggested by a bark beetle (*Scolytus*) and there were hints from fragments of click beetles (Elateridae), a small chafer (*Phyllopertha horticola*), and *Onthophagus* (usually associated with dung deposited in the open), for grassland with grazing animals in the vicinity.
- 8.19 Further evidence for the deposition of domestic waste is the relatively frequent occurrence of charred cereal remains and two large pulse fragments (unidentifiable but possibly pea or bean). An emmer/spelt grain, a barley grain (*Hordeum* sp.), four wild or cultivated oats (*Avena* sp.) and two detached embryos were recovered (1.9

cereal grains per litre). This sample produced the highest concentration of chaff fragments of the six samples (5.5 chaff fragments per litre), comprising mainly spelt (*Triticum spelta*) glume bases and spikelet forks, but with some emmer (*T. dicoccum*; ratio of spelt to emmer was roughly 2 to 1) and occasional barley rachis. Considering that Roman deposits in Canterbury only rarely produce notable quantities of chaff (for example only 3 samples of 105 Roman samples assessed from Whitefriars produced this concentration or more (Davis forthcoming)) the evidence suggests that burnt crop processing waste was probably being deposited close to where the alluvial silts accumulated. Charred weed seeds that were likely to have been a component of the processing waste included brome grass (*Bromus* sp.) vetch/tare, docks (*Rumex* sp.), sheep's sorrel (*Rumex acetosella*) and nipplewort (*Lapsana communis*). Alternatively, some burnt crop processing waste was discarded with the alluvium. One notable record was forty-seven seeds of opium poppy (*Papaver somniferum*). Seeds from this economically useful plant may have been deposited amongst waste, or opium poppies could have been growing as a naturalised weed. The seeds can be used as a flavouring/decoration or as a source of oil and the plant has important medicinal uses. It was introduced into the British Isles as long ago as the Neolithic period but becomes more common in Roman times.

- 8.20 The presence of three charred wood-rush seeds (*Luzula* sp.) a charred spike-rush nutlet and two grass seeds (indeterminate Poaceae) in the sample, suggests that vegetation from an infertile damp, mildly acidic grassland had also been burnt. Whether this vegetation was growing along drainage ditches in the arable fields and the vegetation had been burnt with the cereal remains, or whether it represented hay gathered for tinder is impossible to determine.

*Levelling deposit, context 33, sample <6>*

- 8.21 This deliberate dump of domestic and structural waste (abundant pottery, CBM, bone, oyster, charred plant remains) and industrial waste (slag) can be dated to c AD 60–80 using ceramics. Charred and mineralised plant remains were recovered in moderate concentrations (10.1 fpl (fragments per litre) charred remains, 4 fpl mineralised remains) with the most abundant items being charred barley grains (25 grains; *Hordeum* sp.) and mineralised grass seeds (13 caryopses; various indeterminate Poaceae). Charred spelt chaff (*Triticum spelta*) and several common arable weeds seeds such as scentless mayweed (*Tripleurospermum inodorum*) confirmed the presence of a small amount of cereal processing waste. Traces of charred hazelnut shell (*Corylus avellana*) and charred and possibly mineralised elderberry seeds (*Sambucus nigra*) were the only other possible items of food debris. It is likely that the mineralised remains, which included earthworm cocoons, fly puparia and millipede fragments, may have been preserved within a cess pit or midden. The frequency of mineralised grassland remains could, therefore, relate to the use of grassy materials for toilet wipes or the deposition of hay or animal bedding and waste on the midden.

Clay floor, context 32, sample <5>

- 8.22 Low levels of both charred and mineralised plant remains were present in this sample, the most frequent items being mineralised monocotyledonous stem fragments (possibly grass/straw (Poaceae), rushes (*Juncus* sp.) or sedges (*Carex* sp.)) and mineralised arthropod fragments (including fly puparia, millipedes and woodlouse fragments). Although the charred material was heavily encrusted with mineralised material and mineralised concretions were present the state of preservation of the latter was not good enough to confirm that faecal material was present, i.e. no cereal bran was observed in the concretions. It is possible that the remains represent flooring materials mixed with trample and spilt food waste. Preservation could have taken place *in situ* if organic flooring materials and waste was allowed to build up, providing the mineral-rich and moist conditions required for mineralisation to take place. A larger assemblage of very similar mineralised material was obtained from a late medieval earth floor at Stour Street, Canterbury (Carruthers and Allison 2015). The main difference between the two sites was that several whole mineralised cereal grains were present in the Stour Street assemblage but not at St Peter's Street, and the few charred cereal remains from the St Peter's Street were primarily from hulled wheats as is typical of Roman sites, with spelt wheat (*Triticum spelta*) being confirmed from a spikelet fork. A single rather plump wheat grain may have been from free-threshing wheat or be an aestivoid spelt grain (i.e. a more rounded form of spelt occasionally found). Occasional charred weed seeds included small (<2mm) vetch/tare, a clover-type seed (*Medicago/Trifolium/Lotus* sp.), small grass seeds (indeterminate Poaceae) and dock seeds (*Rumex* sp.).
- 8.23 Mineralised material found in common between the floor at St Peter's Street and 60 Stour Street include frequent monocotyledonous culm fragments and seeds from grasses, elderberry, forget-me-not (*Myosotis* sp.), and carrot (*Daucus carota*). Some of the remains clearly represent flooring materials such as hay and straw while other items, for example elderberry seeds, may have come from food waste and trampled debris. Carrot grows as a wild grassland herb on dry, infertile soils, often near the sea. The seeds have also been used for flavouring and for medicinal purposes (they are carminative, stimulant, and useful for coughs, flatulence, jaundice etc). The presence of carrot seeds (not a species commonly recorded in archaeobotanical samples) in both samples either reflects the gathering of flooring materials from similar sources or the popularity of this flavouring/medicinal herb over many centuries. Carrots as a root vegetable were also consumed in Greek and Roman times, as revealed in classical texts (Grieve 1992, 161).
- 8.24 It is likely that both dry and damp grasslands were used as sources of flooring materials over the centuries. The culm fragments at St Peter's Street included one distinctive triangular sedge (*Carex* sp.) fragment and several sedge nutlets were present in the Stour Street sample. Three complete mineralised Poaceae florets were recovered from St Peter's Street in addition to seeds very tentatively identified as rye grass (cf. *Lolium* sp.). Traces of mineralised bracken and a tentatively identified Ericaceae capsule suggest that some heathy vegetation may also have been used. Apart from the charred remains of cereals and mineralised elderberry seeds, other

food items were two fragments of mineralised apple seed coat and a possible dill mericarp. Occasional fragments of cf. apple skin were also present, suggesting that redeposited faecal material could have been the source of at least some of the mineralised food remains.

*Basal fill of cess pit [8], context 28, sample <4>*

- 8.25 A wide range of mineralised, waterlogged and part waterlogged/part mineralised plant remains were recovered from the basal fill of cess pit [8], along with a small amount of charred material. Insect remains were also abundant and well-preserved.
- 8.26 As might be expected given the nature of the deposit, food remains were the principal components of the sample. Mineralised faecal concretions containing abundant cereal bran fragments, and sometimes larger items such as *Prunus* sp. stones, made up a major proportion of the deposit, demonstrating the importance of cereal-based foods. The next most frequent items were waterlogged (possibly part mineralised) bramble seeds (*Rubus* sect. *Glandulosus*; 194 seeds) although it was clear from the abundance of apple/pear endocarp fragments (scaly parts of an apple/pear core; unquantified +++) that other fruits may have made up a larger proportion of the diet. Apple pips and apple/pear pips amounted to 37 seeds in total. Because apple seeds cannot be identified to species level from their seeds it is not known whether the native crab apple (*Malus sylvestris*) or cultivated apple (*Malus domestica*) was represented. Cultivated apples were probably introduced during the Roman period (Robinson 2006, 217), since by this time many varieties were known to the Romans and practices such as grafting are described in classical writings (Pliny the Elder, Natural History 15.12, 15.15).
- 8.27 In terms of bulk, sloe, cherry, bullace-type and plum stones (*Prunus spinosa*, *P. avium*, *P. domestica* subsp. *insititia*, *P. domestica* subsp. *domestica*) made up a large proportion of the sample, totalling a minimum of 133 fruit stones. The most frequent species was sloe (82% of the *Prunus* spp. stones). Seven longer, broad, rounded stones (averaging 15.2 x 12mm, length x breadth) were present resembling Behre's (1978) 'Type A' *P. domestica* ssp. *insititia* and the author's bullace reference specimens. In addition two notably larger, more elongated plum-type stones (*P. domestica* ssp. *domestica*; 22 x 14mm) and two small, smooth, rounded cherry-type stones (*P. avium*-type; could include *P. cerasus*) were recovered. Other fruits and nuts included frequent strawberry seeds (probably *Fragaria vesca* (Simmonds 1984, 239)) and smaller numbers of remains from other native species that were probably consumed, including hawthorn seeds (*Crataegus monogyna*), elderberry seeds (*Sambucus nigra*) and hazelnut shell (*Corylus avellana*).
- 8.28 Although pulses do not preserve well by mineralisation when intact, a few fragmented mineralised peas (with hila present to confirm the identification) and three elongated cf. broad bean/Celtic bean hila were recovered. In addition, 18 waterlogged triangular apices of leguminous pods were present, with oblique cells within the exocarp that assist in opening the pod on dehiscence. These may have been from peas or other large-seeded legumes such as vetches. Mineralised testa fragments

were not observed, though they have been found in cess pits on other sites, for example Stour Street, Canterbury (Carruthers and Allison 2015). However, the early medieval cess pit at Stour Street was much drier than at St Peter's Street, so factors relating to preservation may explain the absence. A few seed beetles (*Bruchus*, possibly two species) provided additional evidence for the consumption of pulses. The larvae of these beetles develop within seeds of the larger species of legumes and were frequently consumed within infested pulses. The beetles survive passage through the gut well, subsequently being voided in faeces.

- 8.29 Notable imported or introduced food items in the cess pit include the aromatic flavourings coriander (*Coriandrum sativum*) and dill (*Anethum graveolens*). Dill seeds were frequent (113 mericarps) but sometimes poorly preserved. Seventeen spherical paired mericarps of coriander were recovered. Both taxa were introduced into Britain by the Romans, deriving from West and Central Asia and the East Mediterranean respectively. They have medicinal uses as well as being important culinary spices in Roman times. Dill is rich in mineral salts and is said to be a soothing medicine. Its main use is in flavouring pickling vinegar today. Pliny the Elder notes that cooks and medical men use dill (Natural History 19.52). Coriander is a mild sedative and digestive tonic although Grieve notes that the seeds can become narcotic if used too freely (1992, 222). Pliny the Elder lists 'twenty-one remedies' for coriander (Natural History 20.82). The two seeds of *Brassica* cf. *napus* / *oleracea* type (large, round seeds with a very smooth, small-celled reticulum) may have been used as a source of oil or may have come from vegetables (cabbage, swede).
- 8.30 An additional vegetable that was most likely an introduced crop plant rather than the native coastal plant was beet (*Beta vulgaris*), though the two subspecies cannot be told apart. Literary sources indicate that both the leaf-vegetable (chards) and beetroot forms had already developed under cultivation by the first century BC (Zohary and Hopf 2000, 201). The recovery of a beet operculum from the cess pit (sample <4>) and a beet seed from the alluvial silt (sample <7>), ties the two deposits together to some extent, especially since beet is not a particularly common plant macrofossil in archaeobotanical samples. The few charred cereal remains included nine barley grains and a spelt spikelet fork.
- 8.31 Other waterlogged and mineralised plant remains in the sample were either weeds that may have grown as crop contaminants, weeds of disturbed and nutrient-rich places that might have grown around the cess pit, or stems and seeds of grassland and marsh plants that had probably been introduced amongst vegetation used as toilet wipes. Small fragments of waterlogged corn cockle (*Agrostemma githago*) seed coat (testa) are typical of cess pits and represent a cereal contaminant that had been ground up with the grain into flour. Heavy contamination can cause sickness and death although it has been used medicinally to treat dropsy and jaundice in the past. The damp grassland/marshy vegetation probably used as toilet wipes may have included spike-rush (*Eleocharis* subg. *Palustres*), sedges (*Carex* spp.), grasses, lesser stitchwort (*Stellaria graminea*), meadowsweet (*Filipendula ulmaria*), fumitory (*Fumaria* sp.) and silverweed (*Potentilla anserina*). The omaline rove beetle *Acidota*

*cruentata* is found in moss and litter and may have been imported with moss or marshland vegetation used for toilet purposes.

- 8.32 Some groups of beetles were indicative of conditions within and around the cess pit. *Cercyon* species associated with foul organic matter were common and *Cercyon unipunctatus* is especially characteristic of very foul conditions. Oxyteline rove beetles were well represented, the most numerous being *Anotylus sculpturatus* group, *A. tetracarinatus* group, and *Platystethus arenarius*, all suggesting foul and dirty nutrient-rich conditions in and around the pit. There was also a substantial group of beetles (18% of the assemblage) that are characteristically found within ancient buildings where cut vegetation was used structurally or as floor litter (Hall and Kenward 1990; Kenward and Hall 1995; Carrott and Kenward 2001). The 'building fauna' consisted largely of decomposers associated with relatively dry mouldering organic material (*Latridius minutus* group, *Enicmus*, *Dienerella*, *Atomaria* spp., *Cryptophagus* spp., *Typhaea stercorea*, spider beetles (*Ptinus*)) together with other species such as *Xylodromus concinnus* and *Trox scaber*. The size of this element indicates that disused plant litter from within buildings had been added to the pit.
- 8.33 Four beetle taxa associated with wood were recorded, the most common being the woodworm beetle (*Anobium punctatum*). Some may have arrived with material from within buildings but equally might have infested wooden structures around the pit or associated with it. *Gracilia minuta*, a small longhorn beetle, is chiefly a Mediterranean species seldom found in the open in more northerly parts of Europe, its larvae living in dead dry twigs and branches of various trees and shrubs. However, since it attacks osiers it is often found in imported articles made of wicker, to which it can cause extensive damage (Duffy 1953, 195; Hickin 1975, 241; Harde 1984, 39, 256). The species is often associated with cess pits, perhaps having come from wattle or wicker screens (Carrot and Kenward 2001). Two salpingid beetles (*Vincenzellus ruficollis* and *Rhinosimus*) found under bark may also have had a similar origin if the wattle was made of unstripped twigs.
- 8.34 The low numbers of insects representing outdoor habitats (6% of the assemblage) suggests that the pit may have been covered and screened from the open air precluding the entry of flying insects. Apart from scarabaeoid dung beetles which are likely to have been specifically attracted to the foul contents of the pit, the outdoor taxa recorded were almost all ground-living beetles and bugs, including the ground beetles *Pterostichus melanarius* and *Nebria brevicollis*, devil's coach horse (*Ocypus olens*), and a weevil that feeds on Ranunculaceae (*Leiosoma deflexum*). This suggests that the superstructure of the cess pit, whatever form it took, may have had gaps at ground level allowing the entry of ground-living insects.
- 8.35 Although present, fly puparia and beetle larvae were not well-represented relative to other insect remains suggesting that the pit conditions were often too wet for successful breeding to take place.

*Charcoal-rich dump, context 15, sample <1>*

- 8.36 Apart from producing abundant fragments of charcoal, very little of the remaining burnt material was identifiable. ‘Melted’ material was common suggesting either that high temperatures had been reached or sappy material had been burnt. Amongst this the only identifiable items observed were two rather melted pinnule fragments of cf. bracken (cf. *Pteridium aquilinum*), a very poorly preserved indeterminate cereal grain and a cereal-sized culm node (straw node). The items may have been used as kindling for a fire, in which case the bracken would need to have been at least wilted if not dry. The ‘melted’ state of preservation, however, suggests that the bracken was not completely dry. This type of cereal/straw/bracken mix is typical of waste animal bedding.

*Clay floor, context 18, sample <3>*

- 8.37 This deposit contained artefacts and biological material that was characteristic of occupation debris and trample (Allison in Hicks 2015). The sparse charred cereal remains, hazelnut shell fragment and weed seed provided plant macrofossil evidence that was consistent with this interpretation. A single charred cf. emmer/spelt grain fragment (*Triticum* cf. *dicoccum/spelta*), indeterminate cereal grain, hazelnut shell fragment (*Corylus avellana*) and small (<2mm) vetch/tare seed (*Vicia/Lathyrus* sp.) were the only plant remains recorded in 25% of the washover. The low level deposition of burnt household waste is indicated.

**Discussion**

- 8.38 Although only six samples were analysed from this small trench, and of these only four were reasonably productive, the fact that charred, mineralised and waterlogged plant remains were preserved, together with waterlogged insect material, has helped to provide useful information that can be compared to other sites in Canterbury. The alluvial silt (context 34) produced information about the local environment, indicating impoverished grassland with areas of nutrient enrichment, possibly due to the deposition of domestic or stable waste, and hinting at the presence of grazing animals in the vicinity. The basal cess pit fill (context 28) has provided a wider range of information concerning diet in the Roman period.
- 8.39 The examination of one sample from a single cess pit cannot provide reliable evidence of the Roman diet in Canterbury but it is a good starting point from which to build up a picture since it is fairly certain that most of the economic plants represented had been consumed. However, whether all of the items had been passed through the body as human excreta is open to question, particularly in the case of large plum stones. Spitting out fruit stones rather than swallowing them could be one reason why large stones such as plum were much less frequent than other *Prunus* sp. in the cess pit – cultural preferences/behaviour is a factor that should be borne in mind when interpreting faecal deposits. The presence of items such as hazelnut shell fragments demonstrates that some food items represent waste rather than ingested food. In addition, 8% of the sloes were whole and a further 12% retained at least some of their flesh, suggesting that other types of waste may have been deposited in the pits in addition to sewage. Sloes can be used in dyeing, or they might have been

used to flavour and colour wine in the same way that sloe gin is made today. These are both possible reasons why intact sloes had been deposited in the cess pit.

- 8.40 It is also impossible to analyse the Roman diet in terms of the proportions of different foods that had been consumed as not all components are represented in a quantifiable way. Apart from the charred cereal remains (probably deposited as burnt waste), the only surviving traces of cereal-based foods such as bread, for example, are mineralised curls of cereal bran preserved within faecal concretions. Such concretions were frequent in the sample, although waterlogging may have prevented mineralisation from taking place to a certain extent. Fruits can more easily be quantified by their seed numbers, although differences in seed numbers per fruit mean that a high number of, for example, bramble seeds is not equivalent to a similar number of seeds/pips/stones from other fruits. Some other foods, such as pulses, are rarely preserved by waterlogging and are not always identifiable in mineralised assemblages, so the part they play in the diet is often uncertain. As with cereals, pulses and seasonings may have been finely ground before use, in which case they would not often be preserved in an identifiable form. The final complication is that faecal material may have been accumulating for a long period of time, or cess pits may have been cleaned out from time to time. Variables such as these make it impossible to know what period of time each deposit represents. All of these factors mean that cess pit assemblages can only provide a broad guide to what was being consumed. In addition, comparisons between different cess pits must take into account differences in the preservation conditions.
- 8.41 The overall character of this well-preserved cess pit assemblage is of a varied diet based primarily on cereals and pulses, but also rich in cultivated and possibly wild fruits and nuts, with the addition of some introduced flavourings. This sort of diet is likely to be characteristic of a reasonably wealthy person who was either Roman in origin or strongly influenced by the Roman culture. It is interesting to observe that although fruits such as plums and apples and spices such as dill and coriander may have been introduced they can all be successfully grown in the British Isles, presenting the possibility either that imported cultivars may have been planted on farmsteads and villas in the locality supplying the local markets, or that imported fruit trees were planted in the town. Other non-native luxury foods that are sometimes recovered from urban Roman sites such as grapes, figs, walnuts and pine nuts are less well suited to the British climate, and it may be significant that these were not present in the cess pit. However, remains from a second-century cess pit at Castle Street, Leicester, produced luxury goods including fragments of amphorae, grape pips, possible fig seeds as well as sloes, indeterminate *Prunus* sp., strawberry, apple, opium poppy and grass stems (Monckton 2006; Score *et al* 2010). A wide range of luxury foods has also been recovered as stored imported goods within buildings burnt down during the Boudiccan uprising in Colchester (Murphy 1992; Fryer 2003). It should be noted that many Roman cess pits are less productive, for example a late Roman cess pit from Northgate House, Winchester contained cereal bran, peas and sloes or cherries but no exotic imports (Carruthers 2011). Traces of lentil, walnut



shell, fig and pulses have also been recovered from burials and cremations in and around Canterbury demonstrating the ritual importance of these foods.

- 8.42 Few well-preserved Roman cess pits have been investigated in the locality with which to compare pit [8]. The limited range of non-cereal foods from Whitefriars included small numbers of cf. peas, cf. horse bean, lentils (*Lens culinaris*), hazelnut shell, charred sloe, mineralised unidentifiable *Prunus* sp. stones, mineralised apple pips, bramble and elderberries. No imported spices were present but a single beet fruit was recovered and a seed of thorn-apple – a possible medicinal plant.
- 8.43 Comparisons between the charred cereal assemblages for Roman sites in Canterbury are more difficult for St Peter's Street because so few remains were recovered and the contexts were diverse and few in number from the small trench. The overall dominance in terms of cereal grains was barley, followed by emmer/spelt grains with occasional wild/cultivated oats (ratio of 9 to 2 to 1). The chaff fragments indicated that spelt dominated over emmer at a ratio of c. 3 to 1. The much larger amount of data from Whitefriars provided more reliable statistics but produced a similar overall result, in that barley made up 67% of the grains in the early Roman period and spelt was by far the dominant hulled wheat (Davis forthcoming). Early to Late Roman samples were assessed at Augustine House, Rhodaus Town, Canterbury. Although very similar results were found regarding the dominance of barley followed by spelt wheat, problems with contamination (two bread wheat-type grains and a barley grain were radiocarbon dated to the post-medieval to modern period) meant that full analysis was not worthwhile (Carruthers 2014a, 105).
- 8.44 A number of plant assemblages from Roman deposits in Canterbury have recently been assessed (St Dunstan's Terrace (Carruthers 2014b); 1–2 Marlowe Arcade (Carruthers 2014c); Rhodaus Town (Carruthers 2014d); the Beaney Institute (Carruthers, in prep.)) but these have not been taken to full analysis yet so no data is available. The overall impression is that barley is quite often the dominant cereal grain though spelt is common and oats are often present in small numbers. Peas (or possible peas) are more frequently recorded than in many areas of the country. The status of free-threshing wheat is less certain and needs to be investigated using radiocarbon dating wherever large Roman deposits are found, in view of the possibilities of contamination in urban deposits. Other occasional economic plants include flax, cherries, walnut, possible lentil, and a substantial deposit of Late Roman rye chaff (1–2 Marlowe Arcade). Chaff fragments are generally scarce in these urban deposits, possibly indicating that cereals (in particular hulled wheat) were being brought into the town primarily either as processed grain or as flour. This could explain the relative importance of barley grains since these might have been treated differently to hulled wheat. Whole barley and oat grains can be used in stews and pottages or fed to livestock kept in back yards within the town. When fully analysed the additional data from a variety of contexts will help to demonstrate whether or not this theory is correct.

sample	<2>	<3>	<4>	<5>	<6>	<7>
context	15	18	28	32	33	34
feature	Charcoal dump	Clay floor	Cess pit [8]	Clay floor	Levelling	Alluvium
<b>CEREAL GRAINS</b>						
<i>Triticum aestivum</i> s.l. or aestivoid <i>T. spelta</i> (free-threshing wheat grain or aestivoid spelt)				1		
<i>Triticum dicoccum/spelta</i> (emmer/spelt grain)		cf.1f		3	1	1
<i>Hordeum</i> sp. (hulled barley grain)			4		9	1
<i>Hordeum</i> sp. (barley grain)			5		16	
<i>Avena</i> sp.(wild/cultivated oat grain)						4
<i>Avena/Bromus</i> sp. (oat/brome grain)					1	
Detached cereal embryo						2
Indeterminate cereals	1	1	2 (1)	2	7	7
<b>CEREAL CHAFF</b>						
<i>Triticum dicoccum</i> (emmer glume base)						1, cf.2
<i>T. dicoccum</i> (emmer spikelet fork) *						3
<i>T. spelta</i> (spelt glume base)					4	19
<i>T. spelta</i> (spelt spikelet fork)			1	1		1
<i>T. spelta</i> (spelt rachis frag.)					1	
<i>T. dicoccum/spelta</i> (emmer/spelt glume base)				1	3	10
<i>T. dicoccum/spelta</i> (emmer/spelt spikelet fork)					1	6
<i>T. dicoccum/spelta</i> (emmer/spelt rachis frag.)						
<i>Hordeum</i> sp. (barley rachis frag.)						2
<i>Avena</i> sp. (oat awn frags)						+
cereal-sized culm node	1				[1]	
<b>OTHER PROBABLE ECONOMIC PLANTS: FRUITS, NUTS, PULSES &amp; FLAVOURINGS</b>						
<i>Papaver somniferum</i> L. (opium poppy seed)						(47)
cf. <i>Vicia faba</i> (cf. broad/Celtic bean hilum)			[3]			
<i>Pisum sativum</i> L. (pea with hilum)			[1] + cf.[2]			
indeterminate legume pod fragment			(18)			
large legume frag ( <i>Pisum/Vicia/Lathyrus</i> )			[1f]			2
<i>Prunus spinosa</i> L. (whole sloe) HSW			([5])			
<i>Prunus spinosa</i> L. (sloe stone with some flesh often in faecal concretions) HSW			([13])			
<i>Prunus spinosa</i> L. (sloe stone) HSW			([91])			
<i>Prunus avium</i> -type (cherry stone)			([2])			
<i>Prunus domestica</i> subsp. <i>insitita</i> (bullace-type stone, broad, rounded)			([7])			
<i>Prunus domestica</i> subsp. <i>domestica</i> (plum stone)			([2])			
<i>Prunus</i> sp. (poorly preserved sloe/bullace/plum stone fragments) HSW			([13])			
<i>Malus</i> sp. (apple pip)			([32])	[2f]		
<i>Malus</i> sp./ <i>Pyrus communis</i> (apple/pear embryo and cotyledons)			[5]			
<i>Malus</i> sp./ <i>Pyrus communis</i> (apple/pear endocarp)			(++++)			
Indeterminate smooth textured cf. apple skin fragments, often folded and curled, some in faecal concretions			[+++]	[+]		
<i>Crataegus monogyna</i> Jacq. (hawthorn fruit stone) HSW			(5)			
<i>Rubus</i> sect. <i>Glandulosus</i> (bramble seed) DHSW*			(194)			(33)
<i>Fragaria</i> cf. <i>vesca</i> L. (cf. wild strawberry achene) WSH			([113])			
<i>Corylus avellana</i> L. (hazelnut shell frag.) HSW		1	(10)		1	
<i>Brassica</i> cf. <i>oleracea/napus/rapa</i> (cf. cabbage/rape/turnip seed) CD			(2)			

<i>Beta vulgaris</i> L. (beet operculum)			(1)			
<i>Beta vulgaris</i> L. (beet seed)						(1)
<i>Sambucus nigra</i> L. (elder seed) DHSW			(12)	([17])	1 [cf. 1]	1 (++++)
<i>Coriandrum sativum</i> L. (coriander paired mericarps)			(17)			
<i>Anethum graveolens</i> L. (dill mericarp)			(113)			
Apiaceae cf. <i>Anethum graveolens</i> (incomplete mericarp)				[1]		
<i>Apium</i> sp. (wild celery/fool's watercress mericarp) BMw			(1)			
<i>Daucus carota</i> L. (carrot mericarp) Gdi				[1]		
WEEDS & WILD PLANTS						
<i>Pteridium aquilinum</i> (L.)Kuhn (bracken) EGWa	cf. 2			[2]		
<i>Papaver rhoeas/hybridum/argemone</i> (poppy seed) AD						(+++)
<i>Fumaria</i> sp. (fumitory achene) CD			(22)			(3)
<i>Ranunculus acris/bulbosus/repens</i> (buttercup achene) DG					1	(8)
<i>Vicia/Lathyrus</i> sp. (c. 2-3mm small vetch seed)					1	
<i>Vicia/Lathyrus</i> sp. (<2mm small vetch seed)		1		1	6	2
<i>Medicago/Trifolium/Lotus</i> sp. (medick/clover/trefoil seed) GD				2		1
<i>Filipendula ulmaria</i> (L.)Maxim. (meadowsweet achene) Gw			(1)			
<i>Potentilla anserina</i> L. (silverweed achene) DGYo			(1)			
<i>Aphanes arvensis</i> L. (parsley-piert achene) Co						(1)
<i>Urtica dioica</i> L. (stinging nettle achene) CDn			(35)		1	(++++)
<i>Urtica urens</i> L. (small nettle achene) CDn						19
<i>Viola</i> sp. (violet seed) GEWSH						(1)
<i>Hypericum</i> sp.(St John's wort seed) G						(3)
<i>Polygonum aviculare</i> L. (knotgrass achene) CD					1	1
<i>Fallopia convolvulus</i> (L.)A.Love (black bindweed achene) CD					[1]	
<i>Rumex</i> sp. (dock achene) CDG			(5)	2	6 [7]	1
<i>Rumex acetosella</i> L. (sheep's sorrel achene) EoGCas			(8)		4 [1]	2 (1)
<i>Stellaria media</i> (L.) Vill. (common chickweed seed) Cno			(1)			
<i>Stellaria graminea</i> L. (lesser stitchwort seed) Gmi			(12)			
<i>Agrostemma githago</i> L. (corn cockle seed coat fragments) A			(++)			
<i>Chenopodium album</i> L. (fat-hen seed) CDn			(8)			
Chenopodiaceae embryo					[5]	
<i>Atriplex patula/prostrata</i> (orache seed) CDn			(1)			
<i>Myosotis</i> sp. (forget-me-not nutlet) CDGo				[1]		
<i>Hyoscyamus niger</i> L. (henbane seed) Dn						(3)
<i>Plantago lanceolata</i> L.(ribwort plantain seed) Go					1	
<i>Marrubium vulgare</i> L. (white horehound nutlet) GDon			(2)			(82)
<i>Prunella vulgaris</i> L. (selfheal nutlet) GDWo			(1)			
<i>Mentha</i> sp. (mint nutlet) GwBM						(1)
<i>Carduus/Cirsium</i> sp. (thistle achene) GDY			(2)		[2]	
<i>Lapsana communis</i> L. (nipplewort achene) DHWo			(6)			1
<i>Anthemis cotula</i> L. (stinking chamomile achene) Ahmw			(6)			
<i>Tripleurospermum inodorum</i> (L.)Sch.Bip. (scentless mayweed achene) AD					12	
Asteraceae embryo cf. <i>Anthemis/Tripleurospermum</i> -type				[5]		
<i>Aethusa cynapium</i> L. (fool's parsley mericarp) CD			cf. (1f)			(3)
<i>Conium maculatum</i> (hemlock mericarp) DPYnw						(25)
Apiaceae NFI					[1]	
<i>Luzula</i> sp. (wood-rush seed) GEBi						3
<i>Eleocharis</i> subg. <i>Palustres</i> (spike-rush nutlet) BMw			(2)		1	1
<i>Carex</i> sp. (trigonous sedge nutlet) BMw			(1)			(15)
<i>Carex</i> sp. (lenticular sedge nutlet) BMw					1	(4)
<i>Bromus</i> sect. <i>Bromus</i> (brome grass caryopsis) AD					1	7
Poaceae (small seeded grass caryopsis) CDG			[9]	2[1]	[13]	2
Cyperaceae stem fragment				[1]		

Grass/sedge/rush stem fragments			[++]	[58]		
Indeterminate small grass floret				[3]		
cf. Ericaceae fruit with seed				[1]		
Mineralised worm cocoons				[1]	[6]	
Mineralised arthropod fragments				[+++]	[++]	
TOTAL PLANT REMAINS (+ = additional unquantified items)	4	4	12 [15+] ([250]) (475+)	17 [74] ([17])	81 [32]	102 (231+)
SAMPLE VOLUME (litres)	8	8	8	6	8	8
PRESERVATION: charred CH = no brackets; waterlogged WL = ( ); mineralised MIN = [ ]	CH	CH	WL/MI N, CH	CH, MIN	CH, MIN	WL, CH
PROCESSING METHODS (including % sorted, see report)	1	1	2	3	4	5

HABITAT KEY: A=arable; C=cultivated; D=disturbed; E=heath; H=hedgerow; M=marsh; P=pond, river; S=scrub; W=woods; Y=wayside; a=acid soil; d=dry; h=heavy; i=impoverished; n=nutrient-rich; o=open; s=sandy; w=damp/wet

*Table 3. Charred, waterlogged and mineralised plant remains.*

Feature	Pit [8]
Context	28
Sample	<4>
MINIMUM NUMBER BEETLES AND BUG INDIVIDUALS	276
NUMBER OF BEETLE AND BUG TAXA	101
AQUATIC TAXA	
% Aquatics	0%
TERRESTRIAL TAXA	
% Dry decomposers [rd]	16%
% Foul decomposers [rf]	10%
% General (eurytopic) decomposers [rt]	45%
% Total decomposers [rd + rf + rt = RT]	71%
% Outdoor taxa [oa]	4%
% Outdoor + probable outdoor taxa (oa+ob)	6%
% Damp ground/waterside taxa [d]	1%
% Plant-associated taxa [p]	2%
% Grain pests [g]	0%
% Wood-associated taxa [l]	5%
% House/building fauna	18%
% Scarabaeoid dung beetles	2%
SYNANTHROPES	
% Strong synanthropes [ss]	<1%
% Typical synanthropes [st]	14%
% Facultative synanthropes [sf]	18%
% Total synanthropes [S]	32%

*Proportions for each ecological group have been calculated on numbers of individuals in the assemblage.*

*Percentages have been rounded to nearest whole number*

*Table 4. Main statistics of the beetle and bug assemblage from pit [8].*

Context Sample Sample volume	34 <7> 8 litres	28 <4> 4 litres
<b>ANNELIDA</b>		
Oligochaeta sp. (earthworm) egg capsules	+	-
<b>CRUSTACEA</b>		
<i>Daphnia</i> sp. (water flea) ephippia	-	+
<b>INSECTA</b>		
HEMIPTERA (true bugs):		
<i>Heterogaster urticae</i> (Fabricius) [oa-p]	2	-
Lygaeidae sp. [oa-p]	-	1
Auchenorhyncha spp. [oa-p]	-	2
Hemiptera sp. indet. [u]	1	-
DIPTERA (flies):		
Diptera spp. (puparia)	-	++
SIPHONAPTERA (fleas):		
Siphonaptera sp. (indeterminate body segments)	+	+
<b>HYMENOPTERA</b>		
Formicidae sp. (ant)	-	+
Hymenoptera Parasitica spp. (parasitic wasps)	-	++
<b>COLEOPTERA (beetles):</b>		
Carabidae (ground beetles)		
<i>Nebria brevicollis</i> (Fabricius) [oa]	-	1
<i>Pterostichus melanarius</i> (Illiger) [ob]	-	2
<i>Bradycellus</i> sp. [oa]	-	1
Carabidae spp. [ob]	2	-
Hydrophilidae		
<i>Cercyon haemorrhoidalis</i> (Fabricius) [rf-sf]	-	8
<i>Cercyon unipunctatus</i> (Linnaeus) [rf-st]	-	3
<i>Cercyon analis</i> (Paykull) [rt-sf]	-	1
<i>Cercyon</i> spp. indet. (decomposer group) [rt]	-	21
<i>Megasternum concinnum</i> (Marsham) [rt]	3	-
<i>Cryptopleurum minutum</i> (Fabricius) [rf-st]	1	-
Hydrophilidae sp. indet. [u]	1	-
Histeridae (clown beetles)		
<i>Acritus nigricornis</i> (Hoffman) [rt-st]	-	1
Histerinae sp. [rt]	-	1
Ptiliidae (featherwing beetles)		
<i>Ptenidium</i> sp. [rt]	-	9
Leiodidae		
<i>Choleva</i> or <i>Catops</i> spp. [u]	-	2
Staphylinidae (rove beetles)		
<i>Acidota cruentata</i> Mannerheim [oa]	-	1
<i>Omalium</i> sp. [rt]	-	4
<i>Xylodromus concinnus</i> (Marsham) [rt-st]	-	5
Omalinae sp. [u]	-	1
<i>Megarthus</i> sp. [rt]	-	5
<i>Proteinus</i> sp. [rt]	-	1
<i>Micropeplus fulvus</i> Erichson [rt]	-	1
<i>Tachinus</i> spp. [u]	-	2
<i>Aleochara</i> spp. [u]	-	7
<i>Autalia</i> sp. [rt]	-	1

Aleochariinae spp. [u]	-	23
<i>Coprophilus striatulus</i> (Fabricius) [rt-st]	-	6
<i>Anotylus complanatus</i> (Erichson) [rt-sf]	-	2
<i>Anotylus nitidulus</i> (Gravenhorst) [rt-d]	-	2
<i>Anotylus rugosus</i> (Fabricius) [rt]	-	1
<i>Anotylus sculpturatus</i> group [rt]	-	30
<i>Anotylus tetracarlinatus</i> group [rt]	-	11
<i>Platystethus arenarius</i> (Fourcroy) [rf]	-	11
<i>Carpelimus</i> sp. [u]	-	1
Scydmaeninae spp. [u]	-	1
<i>Stenus</i> spp. [u]	-	1
<i>Rugilus</i> sp. [rt]	-	1
<i>Creophilus maxillosus</i> (Linnaeus) [rt]	-	1
<i>Ocypus olens</i> (Müller) [u]	-	1
Xantholininae sp. [u]	1	-
Staphylininae spp. [u]	-	12
Geotrupidae (dor beetles)		
Geotrupinae sp. [oa-rf]	-	1
Trogidae (hide beetles)		
<i>Trox scaber</i> (Linnaeus) [rt-sf]	-	1
Scarabaeidae (dung beetles and chafers)		
<i>Aphodius prodromus</i> or <i>sphacelatus</i> [ob-rf]	-	3
<i>Aphodius</i> sp. [ob-rf]	-	1
<i>Oxyomus sylvestris</i> (Scopoli) [rt-st]	1	1
<i>Onthophagus</i> sp. [oa-rf]	1	-
? <i>Phyllopertha horticola</i> (Linnaeus) [oa-p]	1	-
Clambidae		
<i>Clambus pubescens</i> Redtenbacher [rt-sf]	-	3
Elateridae (click beetles)		
Elateridae spp. [ob]	2	-
Ptinidae (spider and woodworm beetles)		
<i>Ptinus</i> ? <i>fur</i> (Linnaeus) [rd-sf]	1	-
<i>Ptinus</i> sp. [rd-sf]	-	3
Ptininae sp. [rd]	-	-
<i>Stegobium paniceum</i> (Linnaeus) [rd-st]	1	-
<i>Anobium punctatum</i> (De Geer) [l-sf]	1	9
Nitidulidae		
<i>Omosita</i> sp. [rt-sf]	-	1
Cryptophagidae (silken fungus beetles)		
<i>Cryptophagus</i> spp. [rd-sf]	-	11
<i>Atomaria</i> spp. [rd-sf]	-	10
Corylophidae		
<i>Orthoperus</i> sp. [rt]	-	2
?Corylophidae sp. [rt]	-	1
Latridiidae (small brown scavenger beetles)		
<i>Latridius minutus</i> group [rd-st]	-	18
<i>Enicmus</i> sp. [rd-sf]	-	1
<i>Dienerella</i> sp. [rd-sf]	-	1
<i>Corticaria</i> spp. [rt-sf]	-	10
Latridiidae sp. [u]	-	1
Mycetophagidae		
<i>Typhaea stercorea</i> (Linnaeus) [rd-ss]	-	1
Salpingidae		

<i>Vincenzellus ruficollis</i> (Panzer) [l]	-	1
<i>Salpingus</i> sp. [l]	-	1
Cerambycidae (longhorn beetles)		
<i>Gracilia minuta</i> (Fabricius) [l]	-	2
Chrysomelidae (leaf and seed beetles)		
<i>Bruchus rufimanus</i> or <i>pisorum</i> [st]	-	2
<i>Bruchus</i> sp. [u]	-	1
Apionidae (apionid weevils)		
Apionidae sp(p). [oa-p]	1	1
Curculionidae (true weevils)		
Ceutorhynchinae sp. [oa-p]	-	1
<i>Leiosoma deflexum</i> (Panzer) [oa-p]	-	1
<i>Scolytus</i> sp. [l]	1	-
Curculionidae sp. indet. [oa-p]	1	-
Coleoptera spp. indet. [u]	1	2
Insecta spp. indet. larval fragments	-	+
<b>ARACHNIDA</b>		
Acarina spp. (mites)	-	++
Aranae spp. (spiders)	-	+
TOTAL INDIVIDUALS BEETLES AND BUGS	23	276
Concentration of beetles and bugs per litre	3/litre	69/litre

Ecological codes for beetles (Coleoptera) and bugs (Hemiptera) are shown in square brackets as follows: d - damp ground/waterside, l - wood-associated, oa - outdoor habitats, ob - probable outdoor habitats, p - plant-associated, rd - dry decomposers, rf - foul decomposers, rt - eurytopic decomposers, sf - facultative synanthropes, st - typical synanthropes, u - uncoded. Abundance of invertebrates other than beetles and bugs was estimated on a three-point scale as: + present, ++ common, and +++ abundant

Table 5. Insects and other invertebrates recorded from the samples.

## 9. The fish remains

Alison Locker

- 9.1 Small numbers of fish bones were recovered from four of the six samples taken for the recovery of bioarchaeological remains (see Table 6). Fish identified were eel (*Anguilla anguilla*), Salmonid (probably trout (*Salmo trutta*)), herring (*Clupea harengus*), plaice (*Pleuronectes platessa*) and plaice/flounder (*Pleuronectes platessa/Platichthys flesus*). The indeterminate material that made up the majority of the assemblage consisted mainly of fin rays, rib fragments and broken skull fragments. One of these indeterminate fragments was burnt. Three scales were also indeterminate.

<b>Context</b>	<b>15</b>	<b>18</b>	<b>32</b>	<b>33</b>	<b>Totals</b>
<b>Sample</b>	<b>&lt;2&gt;</b>	<b>&lt;3&gt;</b>	<b>&lt;5&gt;</b>	<b>&lt;6&gt;</b>	
Eel	0	0	1	2	3
Salmonid (probably trout)	1	0	0	0	1
Herring	1	2	0	2	5
Plaice	0	1	0	0	1
Plaice/flounder	0	0	3	0	3
<b>Total identified fragments</b>	2	3	4	4	13
Indeterminate fragments	22	26	5	6	59
Burnt fragments	-	-	-	+	
Scales	-	-	-	+	

*Table 6: Fish remains recovered from the sampled deposits, by context.*

## 10. Project archive

- 10.1 The site archive presently consists of the following records and material (not including digital records) (Table 7).

Material	Quantity
Context recording sheets	46
Plans and section drawings	26
Sample sheets	6
CRS register sheets	2
Plan record sheets	2
Sample register sheets	1
Photographic register sheets	3
Finds record sheets	1

*Table 7: Content of site archive.*

- 10.2 The material (artefactual) archive consists of the following (Table 8).

<b>Material</b>	<b>Quantity</b>	<b>Weight (g)</b>
Pottery	1103	46,751
Ceramic building material	34	41,925
Mammal bone	2	9
Shell	27	208
Industrial material	2	252
Small finds	17	-
Environmental material	-	-

*Table 8: Content of material archive.*



- 10.3 The project archive is presently held in the offices of Canterbury Archaeological Trust (92a Broad Street, Canterbury, Kent CT1 2LU). A digital copy of the archive is entered on the Integrated Archaeological Database (IADB), a secure, password protected online resource available at <http://www.iadb.co.uk/cat/> under the project code 49 SPSC EX15.
- 10.4 The project archive conforms with the *Guidelines for the preparation of excavation archives for long term storage* (UKIC 1990), *Standards in the museum care of archaeological collections* (Museums and Galleries Commission 1992) and the *Selection, retention and dispersal of archaeological collections: guidelines for use in England, Wales and Northern Ireland* (The Society of Museum Archaeologists 1993).
- 10.5 The material archive is currently stored by Canterbury Archaeological Trust at 92a Broad Street. No special storage or conservation issues have been identified. No material has been discarded. Discard will be undertaken according to usual CAT methodologies.
- 10.6 Deposition of the final archive will be arranged in consultation with the local museums authority.

## **11. Summary of the excavation results**

- 11.1 Despite lying within the walled area of the Roman town, the site is positioned in what must have been a marginal location, where living conditions could be said to have been less than ideal. Between two channels of the river Stour, it sits within the floodplain, on ground which must, at least periodically, have been wet and boggy.
- 11.2 The earliest deposits within the trench ((34), (35)) probably largely accumulated naturally. Silts and gravel would have been washed across the site whenever the river flooded. The relatively small quantities of domestic and structural debris contained within the layers could have been washed in from surrounding areas of settlement, or been thrown into an area of marshy ground.
- 11.3 During the later years of the first century AD, between *c* AD 60–80, the ground surface was deliberate raised. A dense horizon of pottery, brick, tile and other debris ((33), (39)) was dumped across the site, probably to create an artificial platform, the surface of which was designed to sit above the flood level. Upon the platform lay a sequence of clay floor and occupation deposits ((29), (30), (31), (32), (40), (42)), the nature of which suggests that they lay within the room of a building. No wall remains survived to suggest whether the building was constructed of timber or masonry. Its marginal location might suggest the presence of a low status property of timber, though the remains seen at the Marlowe Theatre site representing a masonry town-house with a hypocaust do nothing to support this assertion.

- 11.4 The ground surface was later raised for a second time by the deposition of two further levelling deposits ((26), (27)), overlying the earlier clay floor and occupation sequence. The pottery evidence suggests that this occurred during the late first century AD, and therefore not long after the construction of the original property. The laying of further levelling material might indicate that the original property was dismantled but this could not be confirmed within the small area of the trench. It is possible that the ground was only raised within certain areas of the property. On balance, however, it seems probable that the original building was removed and the secondary levelling was undertaken on a relatively broad scale, perhaps because the first was insufficient to prevent periodic flooding, or damp conditions were continuing to prevail because of a high water table.
- 11.5 Occupation at the site did not stop, however, since a surface of flint metalling (25) was laid over the newly raised ground. The metalling perhaps formed a yard within or adjacent to an associated building. A depth of occupation material (20) which formed over the surface of the metalling suggests that the yard remained in use for a period of time, although no pottery post-dating the late first century AD was recovered from the deposit.
- 11.6 Occupation continued into the second century AD, although a change in use, of the area or the building, was suggested by a later sequence of clay floors and occupation deposits ((5–6), (9), (12), (14–19) overlying occupation deposit (20). The sequence almost certainly lay within the room of a building. The earliest floor (18) was bounded to the south-west by a beam trench [19] representing the setting for an internal feature, perhaps a partition, within the structure. Pottery recovered from the clay floors and occupation deposits suggests that this phase of occupation spanned the early to mid second century AD to at least the mid third century.
- 11.7 Final use of the area during the later Roman period saw the probable abandonment of the building, or at least abandonment of the room represented by the excavated remains, since the ground was cut by three features ([8], [22], [24]), one of which was a cess pit [8] containing a few sherds of pottery of late third- to fourth-century date. The waterlogged primary fill of the cess pit produced wonderful assemblages of insect and plant remains, a large proportion of the latter comprising food debris. The remains suggest that the Roman diet in Canterbury was quite varied, based primarily on cereals and pulses but also including fruits, nuts, vegetables and introduced or imported food items such as coriander and dill. The material is likely to have derived from persons of reasonable wealth, either Roman in origin or strongly influenced by Roman culture. Where they lived – in a retained part of the building which is known to have stood earlier on the site, or in another property entirely – is not known.
- 11.8 Capping the sequence of Roman activity were modern features and deposits.

## 12. Bibliography

- Arthur, P and Marsh, G 1978 *Early Fine Wares in Roman Britain*, B.A.R. British Series, no. 57, Oxford
- Barford, P 1982 'A new type of Kentish Briquetage', *Kent Archaeological Review* 69, 204–5
- Barford, P 1995 'Briquetage or 'Chaff-tempered Ware'', in Blockley *et al* 1995, 672
- Behre, K-E 1978 'Formenkreise von *Prunus domestica* L. von der Wikingerzeit bis in die frühe Neuzeit nach Fruchtstrein aus Haithabu und Alt-Schleswig', *Ber Deutsch. Bot. Ges. Bd.* 91, 161–179
- Bennett, P, Frere, S S and Stow, S 1982 *Excavations at Canterbury Castle*, The Archaeology of Canterbury 1, Maidstone
- Blockley, P 1987 '12. The Tannery, Canterbury', *Canterbury's Archaeology 1986–1987*, 18–19
- Blockley, K, Blockley, M, Blockley, P, Frere, S and Stow, S 1995 *Excavations in the Marlowe Car Park and surrounding areas*, The Archaeology of Canterbury 5, Whitstable
- Carrott, J, and Kenward, H 2001 'Species associations among insect remains from urban archaeological deposits and their significance in reconstructing the past human environment', *Journal of Archaeological Science* 28, 887–905
- Carruthers, W 2001 'The charred plant remains', in J Butler, *The City Defences at Aldersgate*, *LAMAS Trans.* 52, 99–106
- Carruthers, W 2011 'Charred and mineralised plant remains', in B M Ford and S Teague, *Winchester - a City in the Making*, Oxford Archaeology Monograph 12, 363–373
- Carruthers, W 2014a 'Charred plant macrofossils', in R Helm, *Outside the town: Roman industry, burial and religion at Augustine House, Rhodaus Town, Canterbury*, Canterbury Archaeological Trust Occasional Paper 10, 103–111
- Carruthers, W 2014b 'St Dunstan's Terrace, Canterbury (SDT01): Assessment of plant macrofossils', Unpublished report for Canterbury Archaeological Trust, April 2014
- Carruthers, W 2014c '1-2 Marlowe Arcade, Canterbury (1-2MAC.EX14): Assessment of charred plant remains', Unpublished report for Canterbury Archaeological Trust, January 2014
- Carruthers, W 2014d 'Rhodaus Town, Canterbury: Assessment of plant macrofossils', Unpublished report for Canterbury Archaeological Trust, August 2014

Carruthers, W, and Allison, E 2015 'Plant and insect remains from medieval features at 70 Stour Street, Canterbury, Kent (Canterbury Archaeological Trust Site Code SSC(70).EX13)', *Canterbury Archaeological Trust Report* 2015/79

Davis, A forthcoming 'The plant remains', in *Canterbury Whitefriars. Excavations 1999–2004. The Roman and early Anglo-Saxon activity*

Duff, A (ed) 2012 *Checklist of beetles of the British Isles*, 2<sup>nd</sup> edition, Pemberley, Iver

Duffy, E A J 1953 *A monograph of the immature stages of British and imported timber beetles (Cerambycidae)*, London

Fryer, V 2003 'Charred plant macrofossils and other remains', in H Brooks *Archaeological excavation at 29–39 Head Street, Colchester, Essex. May–September 2000*, unpublished Colchester Archaeological Trust Report 268, 169–184

Grieve, Mrs M 1992 *A Modern Herbal*, revised edition, first published 1931, Tiger Books International, London

Hall, A R, and Kenward, H K 1990 'Environmental evidence from the Colonia: General Accident and Rougier Street', *The Archaeology of York* 14, 289–434, London, Council for British Archaeology

Harde, K W 1984 *A field guide in colour to beetles*, edited and with additional introductory material by P M Hammond, Octopus, London

Hartley, K 1982 'The Mortaria', in Bennett *et al* 1982, 150–8

Hickin, N E 1975 *The insect factor in wood decay*, 3<sup>rd</sup> edition revised by R Edwards, London

Hicks, A 2015 49 'St Peter's Street, Canterbury: Assessment of excavated remains', Canterbury Archaeological Trust, March 2015

Holman, J and Wilson, T 2010 'Marlowe Theatre, Canterbury', *Canterbury's Archaeology 2009–2010*, 1–6

Kenward, H 1997 'Synanthropic decomposer insects and the size, remoteness and longevity of archaeological occupation sites: applying concepts from biogeography to past 'islands' of human occupation', in A C Ashworth, P C Buckland and J T Sadler (eds) *Studies in Quaternary Entomology: an inordinate fondness for insects*, *Quaternary Proceedings* 5, 135–152

Kenward, H K, and Hall, A R 1995 'Biological evidence from 16-22 Coppergate', *The Archaeology of York* 14 (7), 435–797, York, Council for British Archaeology

- Kenward, H K, Hall, A R, and Jones, A K G 1980 'A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits', *Science and Archaeology*, 22, 3–15
- Kenward, H K, Hall, A R, and Jones, A K G 1986 'Environmental evidence from a Roman well and Anglian pits in the legionary fortress', *The Archaeology of York* 14 (5), 241–288, London: Council for British Archaeology
- Moffett L C 1993 'Macrofossil plant remains from Leicester Shires', *Ancient Monuments Laboratory Report* 31/93
- Monaghan, J 1987 *Upchurch and Thameside Roman Pottery: A ceramic typology for northern Kent, first to third centuries A.D.*, B.A.R. British Series, no. 173, Oxford
- Monckton, A 2006 '72 St Nicholas Circle, Leicester (A7.2004): Charred and mineralised plant remains', ULAS Archive Report No. 2006-113
- Murphy, P 1992 'Environmental studies: Culver Street; Environmental studies: Gilbert School; The carbonised cereals and flax', in Crummy, P, *Colchester Archaeological Report* 6. *Excavations at Culver Street, the Gilbert School, and other sites in Colchester 1971–85*, 273–289 and 330–2, Colchester Archaeological Trust, Colchester
- Orton, C 1975 'Quantitative pottery studies: some progress, problems and prospects', *Science and Archaeology* 16, 30–5
- Orton, C 1977 'Introduction to the pottery reports' in T Blurton, 'Excavations at Angel Court, Walbrook, 1974', *Transactions of the London and Middlesex Archaeological Society* 28, 28–30
- Peacock, D 1977 'Ceramics in Roman and medieval archaeology' in D Peacock (ed), *Pottery and early commerce: characterisation and trade in Roman and later ceramics*, Academic Press London, 21–33
- Peacock, D and Williams, D 1986 *Amphorae and the Roman Economy*, London
- Pollard, R 1995 'Pottery from the Augustan to Vespasianic years' and 'The Mid and Late Roman pottery' in Blockley *et al* 1995, 585–624, 690–736
- Pollard, R 1988 *The Roman Pottery of Kent*, Monograph Series of the Kent Archaeological Society 5, Maidstone
- Pratt, S 1992 'St Mildred's Tannery', *Canterbury's Archaeology 1991–1992*, 8
- Robinson, M (with Fulford, N, and Tootell, K) 2006 'The macroscopic plant remains', in M Fulford, A Clarke, and H Eckardt, *Life and labour in Roman Silchester, Excavations in*

*Insula IX since 1997* (Britannia Monograph Series 22), London: Society for the Promotion of Roman Studies, 206–18 and 374–79

Score, V, Browning, J, Johnson, E, Monckton, A, and Kipling, R 2010 ‘A Roman ‘delicatessen’ at Castle Street, Leicester’, *Trans Leics Arch and Hist Soc* 84, 83–89

Simmonds, N W 1984 *Evolution of crop plants*, London: Longman, 3<sup>rd</sup> impression

Stace, C 2010 *New Flora of the British Isles*, 3<sup>rd</sup> edn, Cambridge, Cambridge University Press

Thompson, I 1982 *Grog-tempered ‘Belgic’ Pottery of South-eastern England*, B.A.R. British Series, no.108, Oxford

Tomber, R and Dore, J 1998 *The National Roman Fabric Reference Collection: a Handbook*, Museum of London Archaeological Service Monograph 2, London

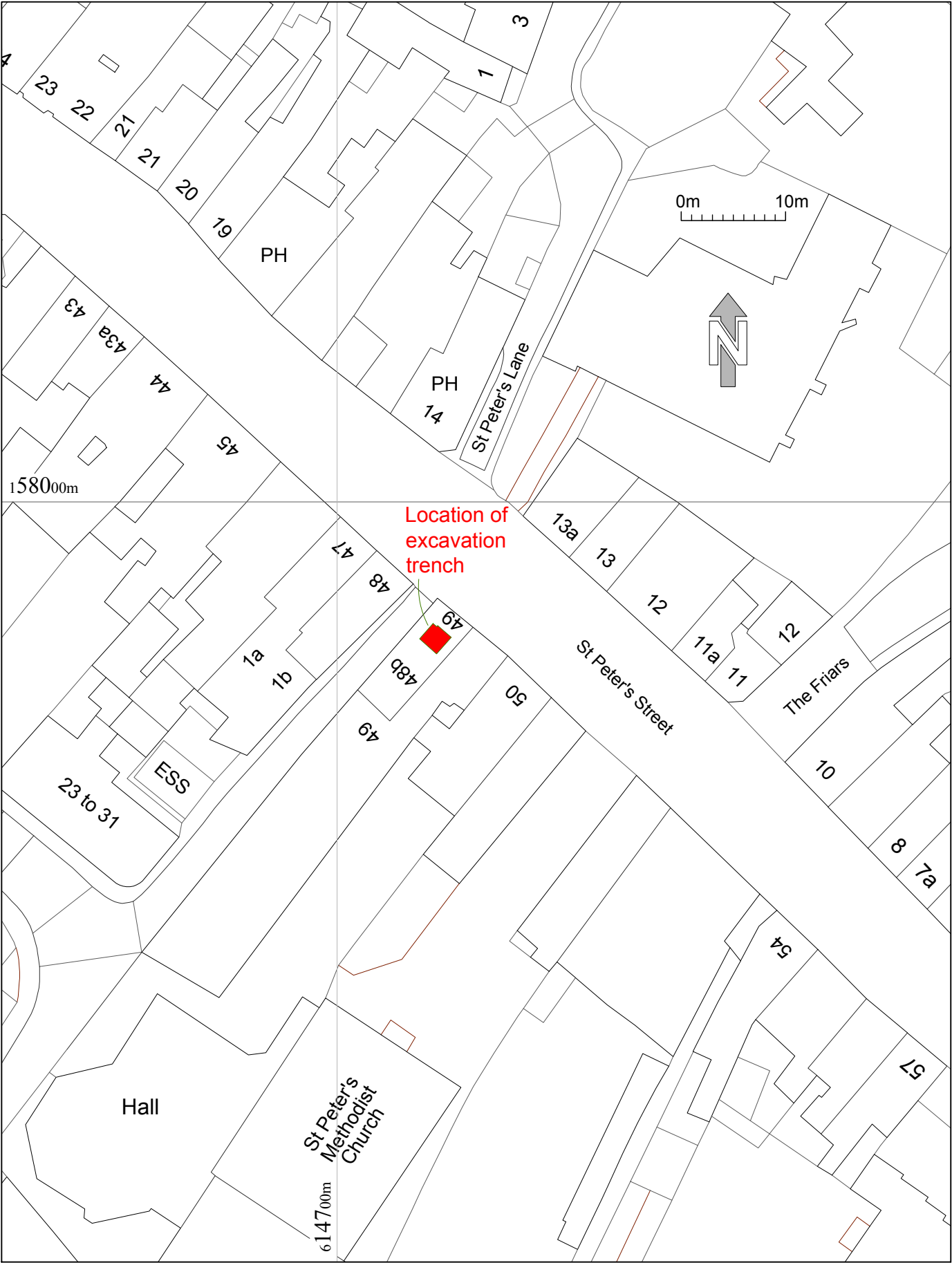
Webster, P, with contributions by Dannell, G 1993 *Roman samian pottery in Britain* C.B.A. Practical Handbook in Archaeology 13, York

Young, C 1974 *Oxfordshire Roman Pottery*, B.A.R. British Series, no. 43, Oxford

Zohary, D, and Hopf, M 2000 *Domestication of Plants in the Old World* (3<sup>rd</sup> edn), Oxford, Oxford University Press

### 49 St Peter's Street, Canterbury. Context list

Context	Nature	Interpretation
1	Deposit	Modern surface
2	Fill	Modern - fill of service trench [3]
3	Cut	Modern - service trench filled by (2)
4	Deposit	Modern layer
5	Deposit	Clay floor
6	Deposit	Occupation over floor (9)
7	Deposit	Upper fill of cess pit [8]
8	Cut	Cess pit
9	Deposit	Clay floor
10	Deposit	Modern - fill of manhole cut [11]
11	Cut	Modern - cut for manhole, filled by (10)
12	Deposit	Occupation over floor (14)
13	Deposit	Modern - fill of cut [36]
14	Deposit	Clay floor
15	Deposit	Occupation over floor (16)
16	Deposit	Clay floor
17	Deposit	Fill of beam trench [19]
18	Deposit	Clay floor
19	Cut	Beam trench, filled by (17)
20	Deposit	Occupation over metalling (25)
21	Deposit	Fill of feature [22]
22	Cut	Feature filled by (21)
23	Deposit	Fill of feature [24]
24	Cut	Feature filled by (23)
25	Deposit	Metalled surface
26	Deposit	Levelling
27	Deposit	Levelling
28	Deposit	Primary fill of cess pit [8]
29	Deposit	Occupation over floor (30)
30	Deposit	Clay floor
31	Deposit	Clay floor
32	Deposit	Clay floor
33	Deposit	Dumped deposit of levelling material
34	Deposit	Silt - alluvial deposit
35	Deposit	Silt and gravel - alluvial deposit
36	Cut	Modern disturbance filled by (13)
37	void	void
38	Deposit	Possible occupation
39	Deposit	Dumped deposit of levelling material
40	Deposit	Occupation over floor (32)
41	void	void
42	Deposit	Occupation over floor (31)
43	void	void
44	Deposit	Fill of modern footing [45]
45	Cut	Modern footing



CANTERBURY ARCHAEOLOGICAL TRUST LTD. <small>A REGISTERED CHARITY 92a Broad Street, Canterbury Kent, CT1 2LU Tel 01227 462062 Fax 01227 784724 Email admin@canterburytrust.co.uk</small>	PROJECT NAME 49 St Peter's Street, Canterbury	DATE 16.11.15	LAST REVISION
		DRAWN BY AH	SCALE(S) 1:500 @ A4
	PROJECT CODE 49SPSC EX15	REF/DRG NO. Figure 1	

Figure 1. 49 St Peter's Street, Canterbury.  
Site location plan

Based on the Ordnance Survey 1:1250 Map of 2003 with the permission of the Controller of Her Majesty's Stationery Office.  
© Crown Copyright. Licence No. AL100021009



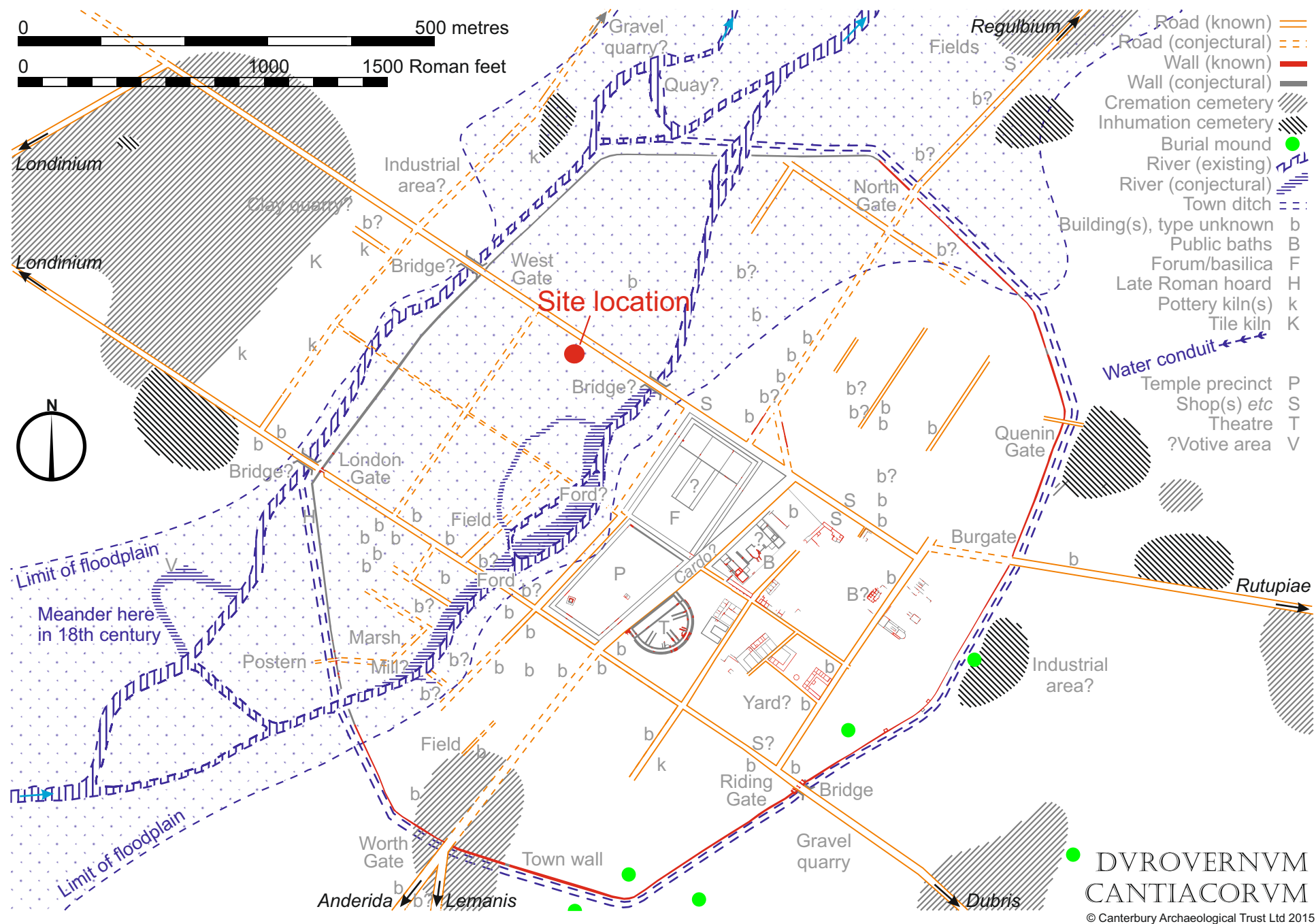
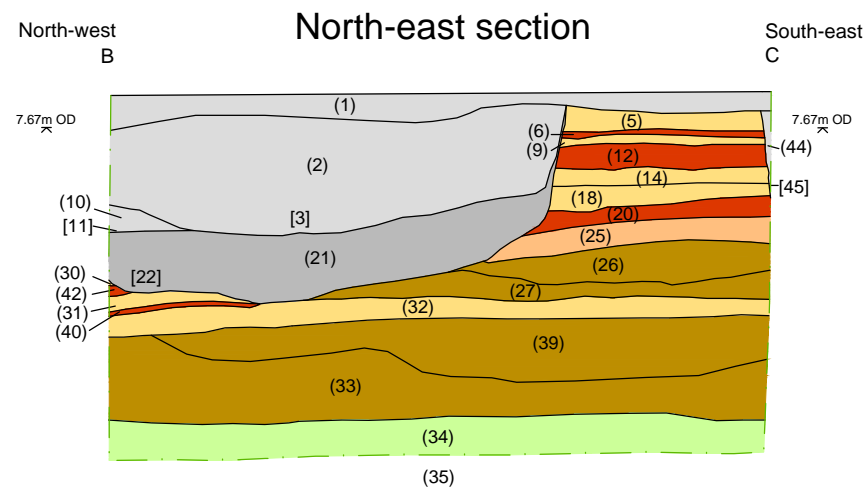
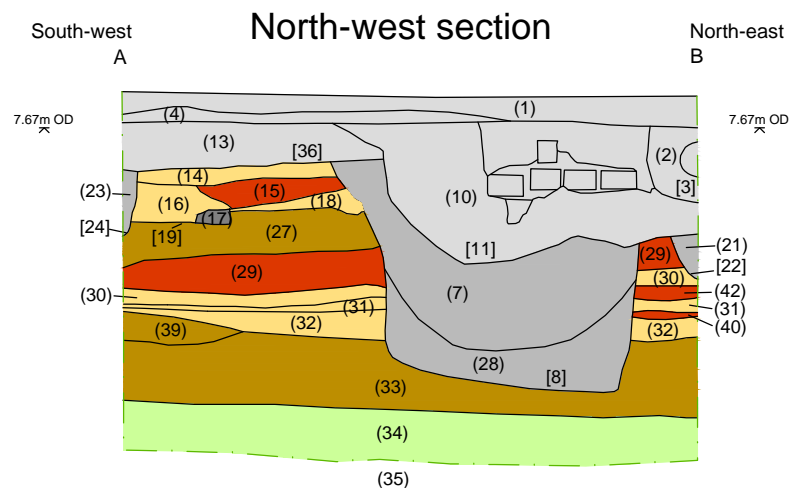


Figure 2. The location of the site in relation to known features of the Roman town



1m

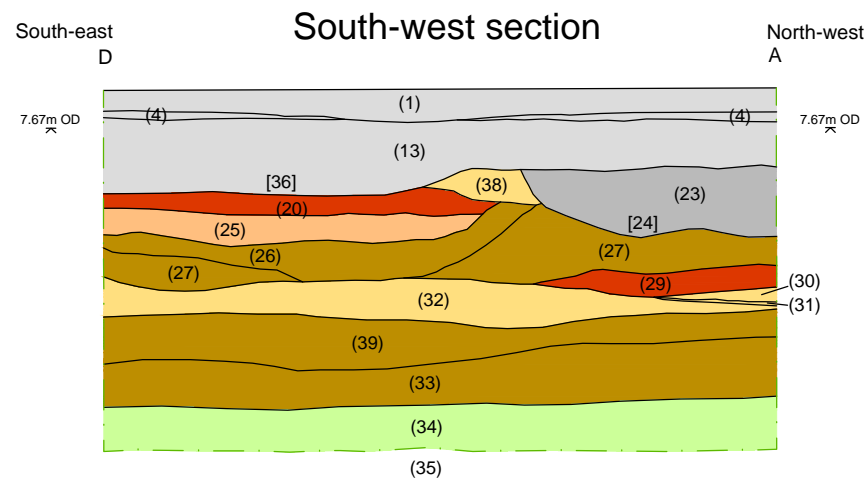
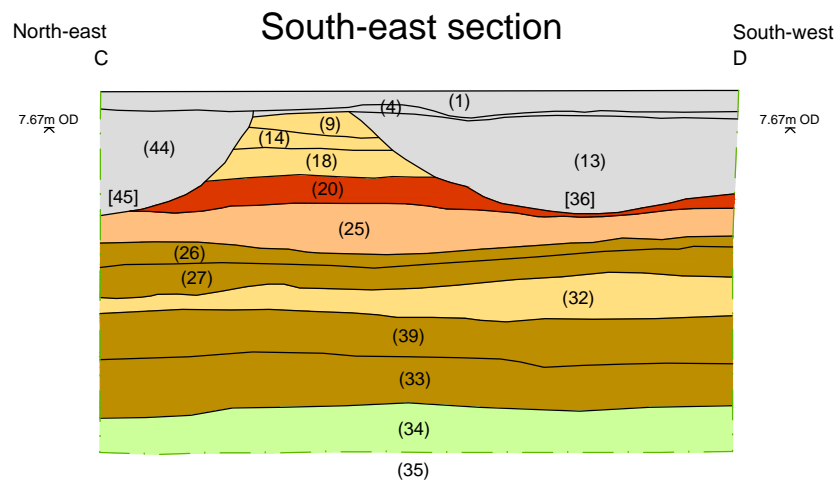
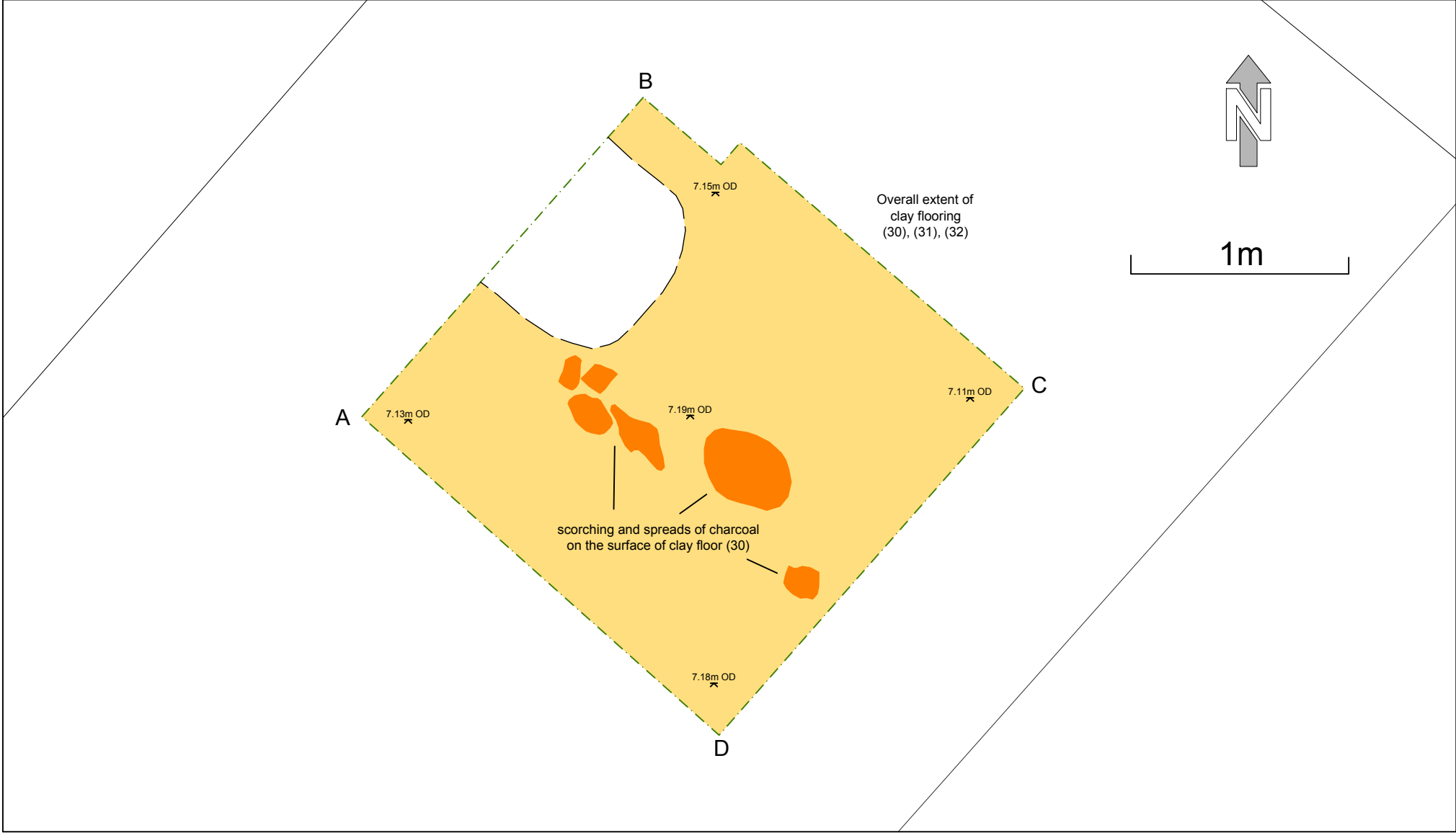


Figure 3. 49 St Peter's Street, Canterbury. Trench section edges.



<b>CANTERBURY</b> <b>ARCHAEOLOGICAL</b> <b>TRUST LTD.</b> <small>A REGISTERED CHARITY</small> <small>92a Broad Street · Canterbury</small> <small>Kent · CT1 2LU</small> <small>Tel 01227 462062 Fax 01227 784724</small> <small>Email <a href="mailto:admin@canterburytrust.co.uk">admin@canterburytrust.co.uk</a></small>	PROJECT NAME 49 St Peter's Street, Canterbury	DATE 16.11.15	LAST REVISION
		DRAWN BY AH	SCALE(S) 1:25 @ A4
	PROJECT CODE 49SPSC EX15	REF/DRG NO.	
		Figure 4	

Figure 4. 49 St Peter's Street, Canterbury. Overall extent of clay flooring (32), (31) and (30).

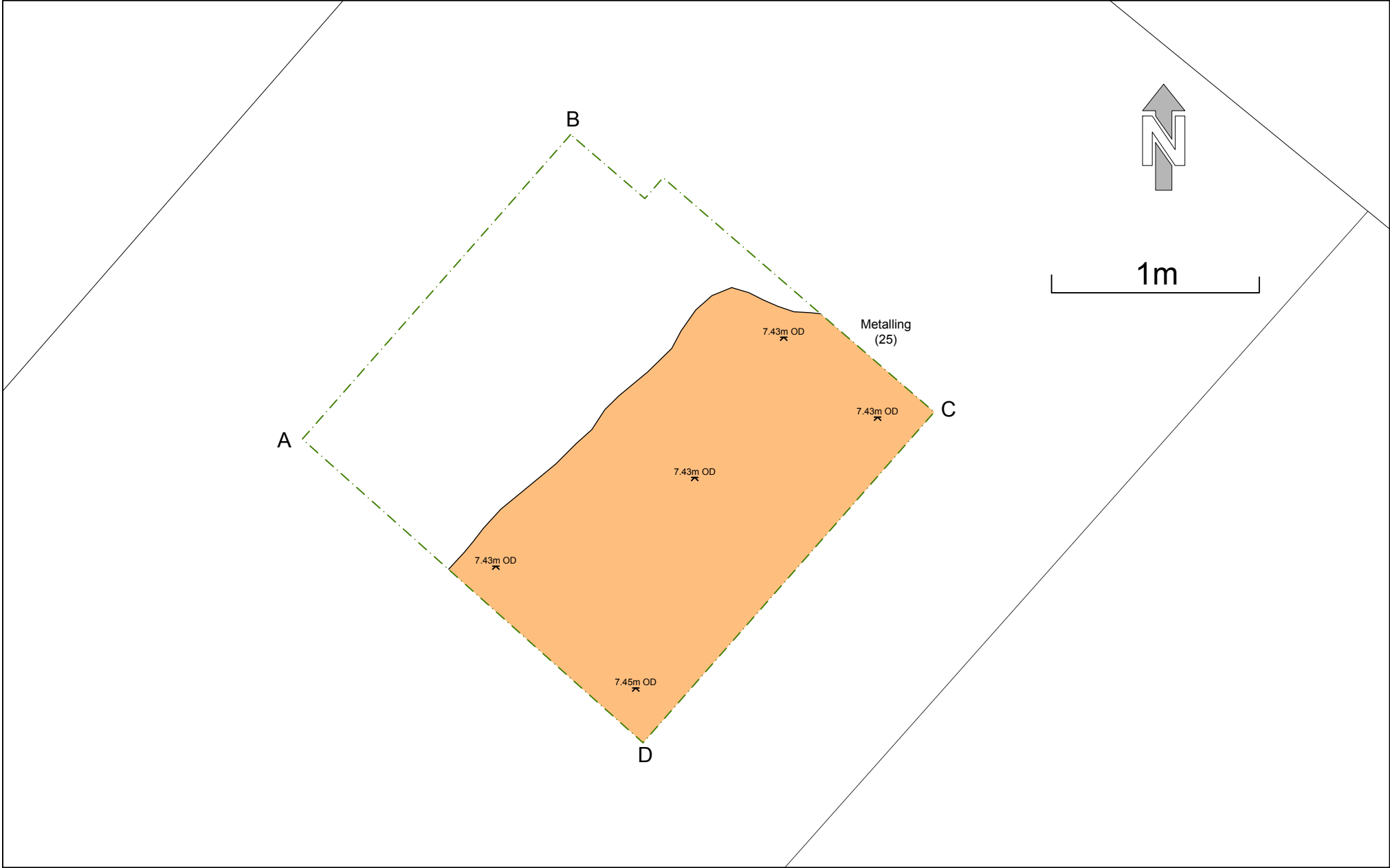
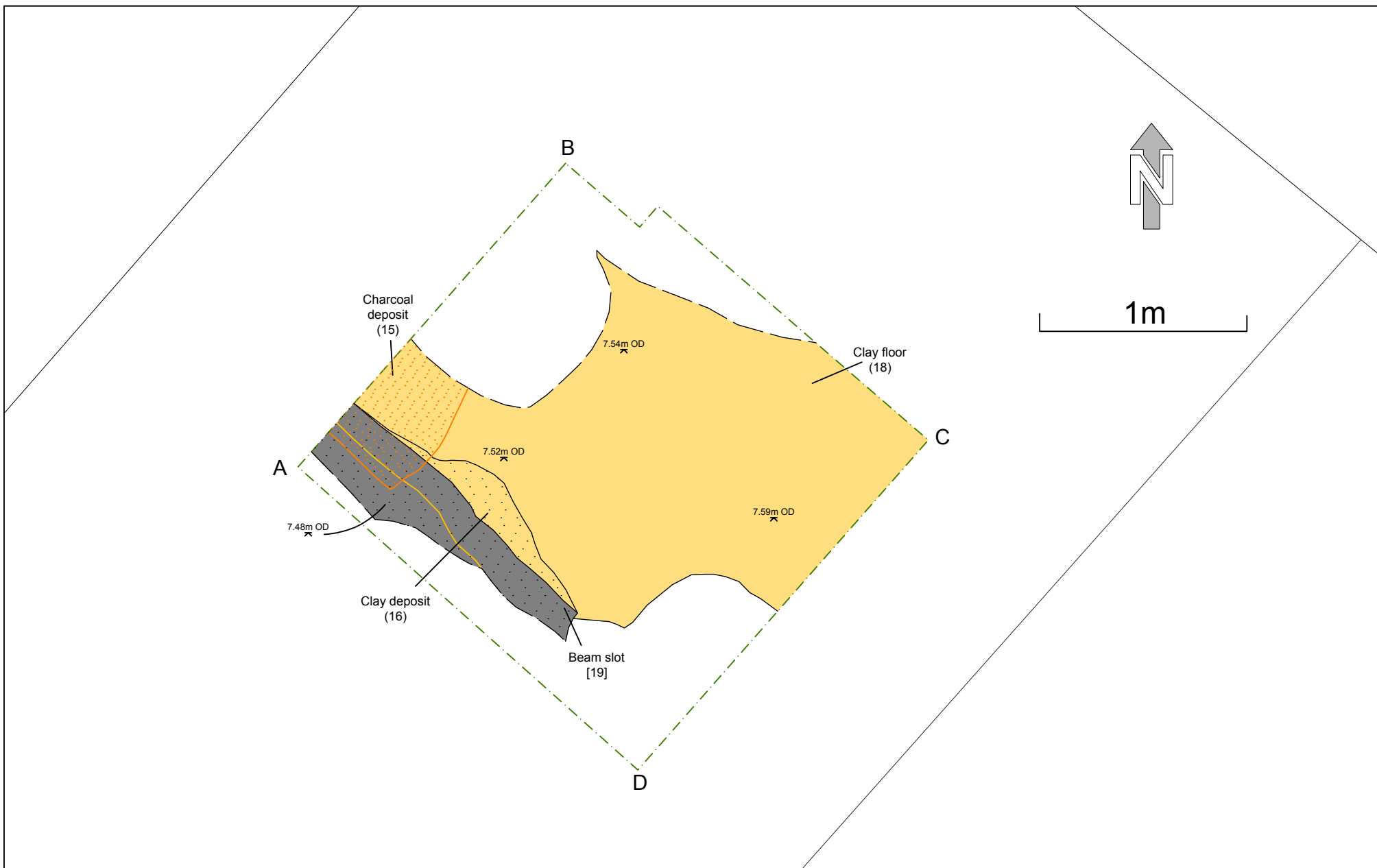
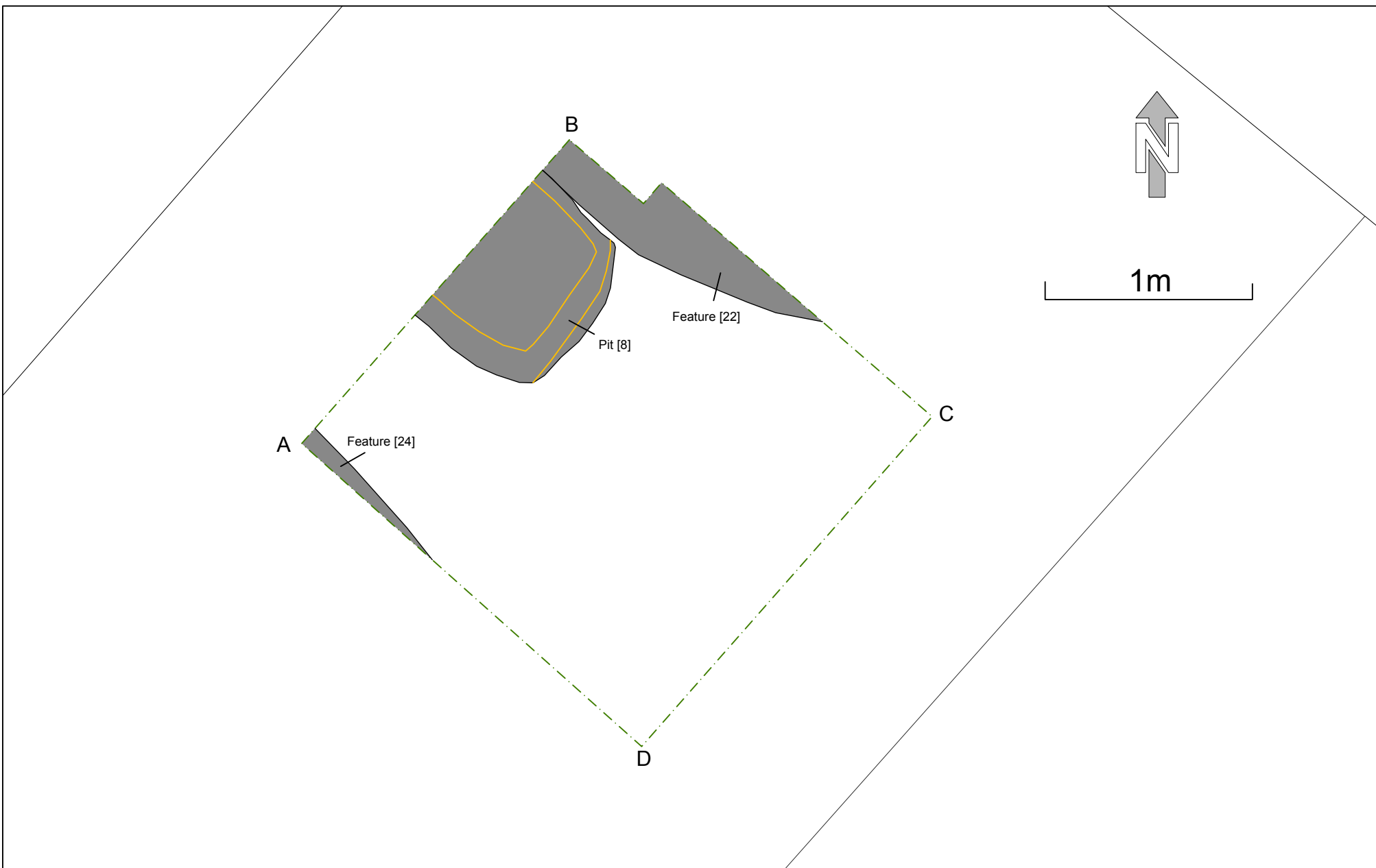


Figure 5. 49 St Peter's Street, Canterbury. Flint metalling (25).



<b>CANTERBURY</b> <b>ARCHAEOLOGICAL</b> <b>TRUST LTD.</b> <small>A REGISTERED CHARITY</small> <small>92a Broad Street, Canterbury</small> <small>Kent, CT1 2LU</small> <small>Tel 01227 462062 Fax 01227 784724</small> <small>Email admin@canterburytrust.co.uk</small>	<b>PROJECT NAME</b> 49 St Peter's Street, Canterbury	<b>DATE</b> 16.11.15	<b>LAST REVISION</b>
		<b>DRAWN BY</b> AH	<b>SCALE(S)</b> 1:25 @ A4
	<b>PROJECT CODE</b> 49SPSC EX15	<b>REF/DRG NO.</b> Figure 6	

Figure 6. 49 St Peter's Street, Canterbury. Clay floor (18), beam slot [19] and overlying deposits (16) and (15).



<b>CANTERBURY</b> <b>ARCHAEOLOGICAL</b> <b>TRUST LTD.</b> <small>A REGISTERED CHARITY</small> <small>92a Broad Street, Canterbury</small> <small>Kent, CT1 2LU</small> <small>Tel 01227 462062 Fax 01227 784724</small> <small>Email admin@canterburytrust.co.uk</small>	<b>PROJECT NAME</b> <b>49 St Peter's Street,</b> <b>Canterbury</b>	<b>DATE</b> <b>16.11.15</b>	<b>LAST REVISION</b>
		<b>DRAWN BY</b> <b>AH</b>	<b>SCALE(S)</b> <b>1:25 @ A4</b>
	<b>PROJECT CODE</b> <b>49SPSC EX15</b>	<b>REF/DRG NO.</b> <b>Figure 7</b>	

Figure 7. 49 St Peter's Street, Canterbury. Pit [8] and features [22] and [24].



<b>CANTERBURY</b> <b>ARCHAEOLOGICAL</b> <b>TRUST LTD.</b> <small>A REGISTERED CHARITY</small> <small>92a Broad Street, Canterbury</small> <small>Kent, CT1 2LU</small> <small>Tel 01227 462062 Fax 01227 784724</small> <small>Email admin@canterburytrust.co.uk</small>	<b>PROJECT NAME</b> 49 St Peter's Street, Canterbury	<b>DATE</b> 16.11.15	<b>LAST REVISION</b>
		<b>DRAWN BY</b> AH	<b>SCALE(S)</b> 1:25 @ A4
	<b>PROJECT CODE</b> 49SPSC EX15	<b>REF/DRG NO.</b> Figure 8	

Figure 8. 49 St Peter's Street, Canterbury. Modern features [3], [11], [36] and [45].





Plate 1. Trench in the basement prior to cutting, looking north-east. Scale 1m.



Plate 2. Clay floor (32) with patches of scorching and charcoal upon the surface. Looking north-east. Scale 0.5m.





Plate 3. Flint metalling (25) during excavation, looking north-east.



Plate 4. Clay floor (18) looking south-west. Scale 1m.





Plate 5. Context 33. 'Belgic' coarse grog-tempered ware: jar rims.



Plate 6. Context 33. 'Potter's mark' on 'Belgic' coarse grog-tempered ware.





Plate 7. Context 33. Combed decoration on 'Belgic' coarse grog-tempered ware



Plate 8. Context 33. Canterbury 'north-Gaulish'-type sandyware. Clockwise, from top left: bead-rim jars x2; flange-rim carinated bowl; everted-rim jar.