

making sense of heritage

44 to 50 Bedwin Street Salisbury, Wiltshire

Archaeological Excavation Assessment Report with Proposals for Analysis and Publication



Ref: 85971.03 December 2013

I archaeology



Archaeological Excavation Assessment Report with Proposals for Analysis and Publication

Prepared for: Bargate Homes Ltd. The Old Barn Vicarage Farm Business Park Winchester Road Fair Oak Hampshire SO50 7HD

Prepared by: Wessex Archaeology Portway House Old Sarum Park Salisbury Wiltshire SP4 6EB

www.wessexarch.co.uk

December 2013

WA Report reference: 85971.03



Quality Assurance

Project Code	85971	Accession Code		Client Ref.	
Planning Application Ref.		Ordnance Survey (OS) national grid reference (NGR)	414711 130270)	

Version	Status*	Prepared by	Checked and Approved By	Approver's Signature	Date
v01	I	РАН	DDR	D. D. Rox.	20/12/13
File:					
File:					
File:					
File:					
File:					

* I = Internal Draft; E = External Draft; F = Final

DISCLAIMER

THE MATERIAL CONTAINED IN THIS REPORT WAS DESIGNED AS AN INTEGRAL PART OF A REPORT TO AN INDIVIDUAL CLIENT AND WAS PREPARED SOLELY FOR THE BENEFIT OF THAT CLIENT. THE MATERIAL CONTAINED IN THIS REPORT DOES NOT NECESSARILY STAND ON ITS OWN AND IS NOT INTENDED TO NOR SHOULD IT BE RELIED UPON BY ANY THIRD PARTY. TO THE FULLEST EXTENT PERMITTED BY LAW WESSEX ARCHAEOLOGY WILL NOT BE LIABLE BY REASON OF BREACH OF CONTRACT NEGLIGENCE OR OTHERWISE FOR ANY LOSS OR DAMAGE (WHETHER DIRECT INDIRECT OR CONSEQUENTIAL) OCCASIONED TO ANY PERSON ACTING OR OMITTING TO ACT OR REFRAINING FROM ACTING IN RELIANCE UPON THE MATERIAL CONTAINED IN THIS REPORT ARISING FROM OR CONNECTED WITH ANY ERROR OR OMISSION IN THE MATERIAL CONTAINED IN THE REPORT. LOSS OR DAMAGE AS REFERRED TO ABOVE SHALL BE DEEMED TO INCLUDE, BUT IS NOT LIMITED TO, ANY LOSS OF PROFITS OR ANTICIPATED PROFITS DAMAGE TO REPUTATION OR GOODWILL LOSS OF BUSINESS OR ANTICIPATED BUSINESS DAMAGES COSTS EXPENSES INCURRED OR PAYABLE TO ANY THIRD PARTY (IN ALL CASES WHETHER DIRECT INDIRECT OR CONSEQUENTIAL) OR ANY OTHER DIRECT INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE.



Archaeological Excavation Assessment Report with Proposals for Analysis and Publication

Contents

Summa Acknov	ary vledgements	vii viii
1		1
1.1	Project background	1
1.2	The Site	2
2	ARCHAEOLOGICAL BACKGROUND	2
2.1	Introduction	2
2.2	Recent investigations on the Site	3
3	METHODOLOGY	4
3.1	Aims and objectives	4
3.2	Fieldwork methodology	4
3.3	Recording	5
3.4	Specialist strategies	6
4	ARCHAEOLOGICAL RESULTS	6
4.1	Introduction	6
4.2	Trench 3	6
	Ditches	7
	Walls	8
1.2	Pils	o
4.3	Chequer dividing wall	9 g
	Chalk-lined shaft	10
	Rubbish pits	11
4.4	Trench 5	11
4.5	Trench 6	12
	Boundary ditches	13
4.0		14
4.6	I rench /	14
	Quarty pits Pits	15 17
	Wells	17
	Foundations	18
4.7	Trench 8	21
	Phase 1	21

	Phase 2 Phase 3	22 23
5	FINDS	
5.1	Introduction	
5.2	Pottery	
•	Prehistoric	
	Medieval	
	Late medieval/early post-medieval	
	Post-medieval	
5.3	Ceramic building material (CBM)	
5.4	Fired clay	
5.5	Clay tobacco pipes	28
5.6	Stone	29
5.7	Worked and burnt flint	29
5.8	Glass	29
5.9	Slag	29
5.10	Metalwork	29
5.11	Animal bone	
	Methods	30
	Preservation condition	31
	Medieval	
	Post-medieval	
	Modern	32 32
5.12	Marine shell	
6	ENVIRONMENTAL EVIDENCE	
61		33
6.2	Charred plant remains	33
6.3	Wood charcoal	
6.4	Minoralized remains	
0.4		
7	SITE DISCUSSION	34
	Introduction	
	Layout	
	Structural development Dite	
	Wells	
	Assessment of results set against issues raised by Hawkes (n.d.)	
8	STATEMENT OF POTENTIAL	40
8 1	Stratigraphic sequence	40
8.2	Finde	
0.2	Environmental Evidence	40
0.0		
9	METHOD STATEMENT	41
9.1	Stratigraphic sequence	41
9.2	Finds	42
	i	



	Pottery	42
	Clay pipes	42
	Copper alloy seal matrix	42
	Animal bone	42
9.3	Environmental evidence	42
	Charred plant remains	42
	Wood charcoal	
	Mineralised remains	43
10	RESOURCES AND PUBLICATION	
10.1	Proposed publication	
10.2	Management structure	44
10.3	Performance monitoring and quality standards	
10.4	Designated project team	44
11	STORAGE AND CURATION	
11.1	Museum	46
11.2	Preparation of archive	46
11.3	Conservation	46
11.4	Discard policy	46
11.5	Copyright	47
11.6	Security copy	47
12	REFERENCES	47
13	APPENDICES	50
13.1	Appendix 1: Assessment of the charred plant remains and wood charcoal	50



Tables

- Table 1. Finds totals by material type
- Table 2. Pottery totals by ware type
- Table 3. Animal bone: number of identified specimens (or NISP) by broad chronological period
- Table 4. Animal bone: quantity and type of detailed information
- Table 5. Task list

Figures

- Figure 1. Site and areas of excavation
- Figure 2. Site plan showing Victorian and modern features
- Figure 3. Trench 3: detail plan and sections
- Figure 4. Trench 4: detail plan and sections
- Figure 5. Trench 5: detail plan
- Figure 6. Trench 6: detail plan
- Figure 7. Trench 7: detail plan and sections
- Figure 8. Trench 8: detail plan and sections

Plates

- Plate 1. Trench 3 viewed from the west
- Plate 2. Trench 4: shaft 420 viewed from the north-west
- Plate 3. Trench 5: brick-lined pit 508 and ditch 503 viewed from the south (scale 2m)
- Plate 4. Trench 7: hearths and oven viewed from the west (scales 0.2m & 0.5m)
- Plate 5. Trench 8 viewed from the east (scales 1m & 2m)
- Plate 6. Trench 8: Wall foundation 1842 and wall 803 viewed from the south (scales 1m & 0.5m)



Archaeological Excavation Assessment Report with Proposals for Analysis and Publication

Summary

Bargate Homes commissioned Wessex Archaeology to undertake a programme of archaeological excavation in advance of development for residential housing on the Vanner's Chequer. This area lay in the north-east corner of the planned medieval city of Salisbury. Two evaluation trenches, 1 and 2, demonstrated that there was potential for the survival of undisturbed medieval deposits and features in this part of the city about which nothing was known archaeologically.

The subsequent excavations, trenches 3-8, were mainly targeted on the footprints of the proposed new buildings. Tenement boundaries found during the work suggest that individual plots, conventionally seven perches by three ($35 \times 15 \text{ m}$), were laid out during the initial survey in the 13^{th} century from an axial boundary that ran E-W. It is likely that individual boundaries underwent change and were amalgamated, divided and subdivided periodically.

Excavations on the Bedwin Street frontage were not possible as a Victorian building there has been retained in the new development. However, rubbish pits to the rear of the tenements tended to confirm conclusions of the RCHM that development had taken place by the 15th-16th century and possibly earlier. The Salt Lane frontage contained wall foundations of a substantial building of 13th-14th century date which overlay a number of pits, post holes and stake holes. This building, which was aligned parallel to the street frontage, may have been associated with a chalk-lined shaft, probably a cess pit, which lay adjacent to the northern boundary of the tenement. The building was renovated at least once and was subdivided into smaller units, possibly coincidental with development at the east end of the street.

Land to the east of the building on Salt Lane was apparently exploited in the medieval period to extract clay for daub manufacture. Later, buildings that extended back from the frontage were apparently erected at this end of the street in the 15th -16th centuries, as recorded by the RCHM. Two superimposed peg tile hearths and an oven were associated with these buildings, which were replaced or heavily refurbished in brick in the 19th century.

The excavation produced a number of rubbish pits containing finds assemblages, including pottery dating to the 15-16th centuries. The latter are small assemblages but nevertheless important comprising material from a period that is otherwise poorly represented in the city.

The later 19th century phase of redevelopment produced evidence of clay tobacco pipe manufacture on the Salt Lane frontage. This material can be linked to documentary references to William Morgan and his business partner James Skeaimes whose premises lay in Salt Lane through the mid-late 19th century.

It is proposed that the results of the archaeological excavation be published as a short article in the county journal or, alternatively, as a fully illustrated popular publication of similar length which contains all the principal results from the proposed analysis of the stratigraphic, finds, environmental and documentary elements of the excavation.



Archaeological Excavation Assessment Report with Proposals for Analysis and Publication

Acknowledgements

The archaeological excavation was commissioned by Bargate Homes to whom Wessex Archaeology extend thanks. Appreciation is also given to Steve Gray, Site Manager of Bargate Homes and all other visiting staff from Bargate Homes who helped to make the project run smoothly and successfully. Thanks are also offered to Clare King, Assistant County Archaeologist at Wiltshire Council, for constructive comment and for supporting progress of the work through monitoring meetings.

The fieldwork was directed by Phil Harding, who also compiled this report, assisted by Matt Kendall, Alistair Black, Mike Dinwiddy, Neil Fitzpatrick, Talia Hunt, John Kaines, Phoebe Olsen, Richard Payne and Peter Wilson. The pottery and general finds were assessed by Lorraine Mepham, with the faunal remains described by Lorrain Higbee. The environmental samples were processed by Tony Scothern and were assessed by Sarah F. Wyles. The graphics were drawn by Liz James.

The project was managed for Wessex Archaeology by Damian De Rosa, who also helped with the excavation.



Archaeological Excavation Assessment Report with Proposals for Analysis and Publication

1 INTRODUCTION

1.1 **Project background**

- 1.1.1 Wessex Archaeology (WA) was commissioned by Bargate Homes Ltd to undertake a programme of archaeological excavation on land extending from 44-50 Bedwin Street to Salt Lane, Salisbury, centred on National Grid reference (NGR) 414711 130270 (hereafter referred to as the Site) (**Figure 1**). The proposed Scheme entailed construction of a new residential-led development.
- 1.1.2 A planning application S/2012/1654 was submitted for the provision of 14 dwellings, including vehicle access onto Salt Lane and Bedwin Street and on-site parking. The development also proposed demolition of a building facing onto Salt Lane, a wooden structure across the central area of the Site and buildings to the rear of the property facing onto Bedwin Street, all of post WWII date. On Bedwin Street, a Victorian building, the former Registry Office, was retained for residential use.
- 1.1.3 Following consultation with the Wiltshire Council Archaeological Service (WCAS), an archaeological desk-based assessment (CgMs 2012) and trial trench evaluation report (WA 2012), Wiltshire Council, the local planning authority (LPA), recommended that the planning application should be approved subject to a full archaeological condition in accordance with the National Planning Policy Framework (NPPF), stating that:
- 1.1.4 "No development shall commence within the area indicated (proposed development site) until:
 - A written programme of phased archaeological investigation and mitigation, which should include on-site work and off-site work such as the analysis, publishing and archiving of the results, has been submitted to and approved by the Local Planning Authority; and
 - The approved programme of archaeological work has been carried out in accordance with the approved details.
- 1.1.5 This work would be undertaken to record any deposits, features or structures of archaeological interest and should be undertaken in accordance with an agreed Written Scheme of Investigation (WSI).
- 1.1.6 Archaeological mitigation involved excavation of six areas which represented the footprint outlines of proposed new buildings.
- 1.1.7 This strategy was considered to represent an appropriate response to the results of the archaeological trial trench evaluation undertaken by Wessex Archaeology in 2012 (WA 2012).



1.1.8 An agreed Written Scheme of Investigation (WSI) was prepared by Wessex Archaeology and approved by the Assistant County Archaeologist at Wiltshire Council, which set out the strategy and methodology by which the excavation would be undertaken.

1.2 The Site

- 1.2.1 The Site was located on the north-eastern edge of the medieval city of Salisbury, within the Vanner Chequer. It fronted directly onto Bedwin Street and Bourne Hill to the north and Salt Lane to the south. The eastern and southern boundaries were defined by properties fronting respectively onto Greencroft Street to the east and St Edmund's Church Street to the west (**Figure 1**). Prior to development work being undertaken the Site comprised a mixture of asphalt car park and buildings.
- 1.2.2 The Site occupied predominantly flat ground at a height of *c*. 170m aOD (above Ordnance Datum). The natural ground sloped gently from north to south, although it had been heavily modified by former development.
- 1.2.3 The underlying drift geology of the Site is mapped as the Higher Terrace Gravel of the River Avon, lying on Upper Chalk of the Cretaceous Period (Geological Survey of Great Britain, Sheet 298). The soils within Salisbury are Calcareous Alluvial Gley Soils (Frome) and the surrounding countryside is composed of Brown Rendzina (Andover 1) and bands of Typical Brown Calcareous Earths (Coombe 1) (Soil Survey of England and Wales Sheet 6, 1983). The Site is near the confluence of the rivers Avon, Nadder and Wyle.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

- 2.1.1 The medieval city of Salisbury lies within surroundings that are of high historical and archaeological potential. The Site was situated in the north-eastern corner of the medieval city and within a Conservation Area. A rich early Anglo-Saxon inhumation cemetery and part of the earthen ramparts of the medieval city defences, the latter a Scheduled Ancient Monument (SM 736), were recorded immediately north-east of the Site. Further afield important concentrations of Palaeolithic hand-axes have been collected from Milford Hill, to the east, with well preserved medieval buildings to the south and west.
- 2.1.2 The Council House also lies to the north of Bedwin Street/Bourne Hill. This building occupies the site of the former College of St. Edmunds, which was originally founded in conjunction with St. Edmunds Church in 1269. The Wyndham family built the core of the present Council House in 1670 to which subsequent additions and alterations were made, including the impressive façade, ostensibly modified during the Georgian era. The existing structure is a Grade II* Listed building, and two adjacent walls demarcating the College grounds are also Grade II Listed, whilst other walls form part of the Listed Building's curtilage.
- 2.1.3 The fragment of earthen rampart remains relatively well preserved, standing to a height of between 4-5 metres. It is aligned N-S to the rear of the Georgian façade of the Council House and approximately 15m further east of it. Elsewhere the ramparts have been destroyed by post-medieval development and landscape alteration. The line is perpetuated by Rampart Road to the south and, to the north of St Edmund's Church, by a line running parallel with the east/west section of Belle Vue Road.
- 2.1.4 Nothing has been recorded to indicate prehistoric, Romano-British or Anglo-Saxon activity within the Site boundary.



- 2.1.5 The Site lay in the Vanner's Chequer, which forms the NE chequer of the planned medieval city of Salisbury. No previous archaeological work had been undertaken in the chequer.
- 2.1.6 John Speed's map of 1611 suggests that the chequer had been developed on all sides by that time, however the survey of 1716 by William Naish, which may be considered to be both more accurate and less stylised, shows no development on the east side, fronting onto the Greencroft and the rear of the ramparts. The survey by George Oakley of 1833 similarly shows only limited development along the eastern side of the chequer.
- 2.1.7 The survey by the Royal Commission of Historic Monuments (RCHM) lists documentary sources which indicate that the tenements in the Vanner's Chequer were limited in extent with only small gardens or none at all. A large residence occupied the northern part of the chequer, close to the location of the former Registry Office. This structure is shown on Naish's map of 1716 and also on that of Oakley in 1833, although the precise footprint is unknown. In 1504 the building, for which no description exists, although it is likely to be of timber-framed construction, was owned by Richard Freeman.
- 2.1.8 The survey of Ancient and Historical Monuments in the City of Salisbury (RCHM 1980) includes detailed descriptions of two houses at 54-56 Bedwin Street that are extant. These are the only properties in the inventory that front onto Bedwin Street, of which the rear of the medieval tenement now falls within the area of the Site.
- 2.1.9 The two properties are described as being of late 16th century timber-framed construction with 18th century alterations, although whether they were erected on earlier foundations cannot be established. They were considered to have been originally a single house, with a tenement street frontage of approximately 12m.
- 2.1.10 Properties on Salt Lane are shown on early editions of the Ordnance Survey, which indicate that the Site extended from 37-49 Salt Lane. The mapping provides detail of the location of individual properties but no description of their appearance or construction.
- 2.1.11 A Sale catalogue, held in Devizes Museum, includes reference to the sale on Thursday May 25th 1911 of No. 43 Salt Lane, a double-fronted house in the occupation of Mr. C.J. Richards, Bootmaker. The property is described as having a 'large yard immediately behind let with this property with a separate rental of £19.10.0 per annum. Only the house will be sold at this Sale, the yard or garden having been separately mortgaged and this will be offered for sale early in June'.
- 2.1.12 Houses of late 16th century timber-framed construction and fronting onto Salt Lane were also included in the inventory of the RCHM. These dwellings, 49-51 Salt Lane and 45-47 Salt Lane, were located in the SE corner of the chequer. All but 51 Salt Lane were demolished by the time that the survey was completed and lay within the Site. These properties, which are of a similar tenement width (12m) to those on Bedwin Street, were listed as having cellars.

2.2 Recent investigations on the Site

- 2.2.1 An archaeological evaluation, undertaken during 2012 (WA 2012), comprised the machine excavation and recording of two trial trenches (Trenches 1 and 2), measuring 20m x 2m and 10m x 1.5m respectively (see **Figure 1**).
- 2.2.2 Natural geology exposed in test pits excavated in the base of each trench comprised river terrace gravel. In Trench 1, it was encountered at a depth of 1.23m below ground level



(47m aOD) and was overlain by remnants of a possible 'brick-earth' deposit into which archaeological features were cut. In Trench 2, the natural geology was recorded at a depth between 1.3 m and 1.4m below ground level (46.4m - 46.8m aOD).

- 2.2.3 Traces of medieval and post-medieval activity were identified during the evaluation. The earliest phase of activity recorded comprised rubbish and cess pits of 13th and early 14th century date. Three pits partially exposed in Trench 1 are thought to have been refuse pits as they were in-filled with one or two deliberate backfills of domestic waste. The excavated pit in Trench 2 contained cess deposits. The finds recovered from the pits comprised 13th or early 14th century pottery, roof tiles, animal bone and marine shell. The medieval features were sealed beneath later deposits and appeared to have been subject to some disturbance.
- 2.2.4 Evidence of post-medieval activity comprised structural remains of a building fronting onto Salt Lane. Buildings at this location are recorded from 17th century onwards; however, it was thought more likely that the remains were those shown on the 1881 First Edition Ordnance Survey map. To the north of the building, remains of yard surfaces and backyard outhouses or garden boundary walls were also recorded.

3 METHODOLOGY

3.1 Aims and objectives

- 3.1.1 The programme of excavation aimed to provide further information concerning the presence/absence, date, nature and extent of any buried archaeological remains and to investigate and record these within the constraints of the proposed trial trench evaluation. Further aims comprised:
 - Record the presence/absence and extent of any buried archaeological remains within the Site that may be disturbed by development.
 - Identify, within the constraints of the excavation, the date, character, condition and depth of any surviving remains within the Site.
 - Assess the degree of existing impacts to sub-surface horizons and to document the extent of archaeological buried deposits and the inter-relationships with one another.
 - Assess the potential for activity and settlement on the Site from the Palaeolithic through to the medieval/post-medieval period
 - To record any remains pertaining to the medieval planning or later development of the Vanner's Chequer
 - To ensure that whilst excavation allows for the robust recording of the post-medieval remains, documentation should be sufficiently detailed to define and separate medieval from post-medieval phases of occupation across the Site.
 - Produce an assessment report and subsequent publication in the regional journal, which will present the results of the excavation and watching brief in their local and regional context

3.2 Fieldwork methodology

3.2.1 Excavation trenches were numbered 3, 4, 5, 6, 7 and 8 (see **Figure 1**) to allow continuity with the archaeological evaluation context recording system.



- 3.2.2 All trenches, apart from trench 6, were targeted on new residential housing footprints, with trench 6 being placed on the main proposed soakaway in the southern part of the Site.
- 3.2.3 Excavation commenced on the 17th June 2013 and was completed 24th July 2013 following phased demolition of buildings and site clearance.
- 3.2.4 Trenches were excavated sequentially, as near as possible, progressing numerically from north to south; only trench 5 was opened out of sequence to allow this area to be used as a temporary spoil dump
- 3.2.5 Trenches were opened by machine, removing modern overburden to expose any postmedieval structures. These were recorded, surveyed and photographed, to be correlated with Ordnance Survey mapping, before being removed (see **Figure 2**). Post-medieval garden soils were also removed by machine to expose additional early post-medieval and/or medieval features and structures that were sealed by the later developments, as indicated from the results of evaluation Trench 1.
- 3.2.6 The spoil from the excavation was scanned for artefacts, although upper layers were heavily disturbed containing unstratified artefacts of many periods.
- 3.2.7 As a minimum, the following strategy was undertaken:
 - Pits: at least 50% excavated unless they were clearly of sufficiently modern date to allow phasing to be established by surface artefact collection. The final excavation strategy was subject to periodic review on site by WCAS and Wessex Archaeology's Project Manager as the excavation progressed.
 - Ditches: all relationships were defined and sampled to elucidate the date, character and function of the feature.
 - Post-holes were 50% excavated.
 - Structures: all such remains were cleaned and recorded in plan and extensively excavated to establish date of original construction, phasing and context within the medieval chequer.
 - Other features: large, amorphous features were sampled in agreement with WC.'s Archaeological Advisor to establish their stratigraphic relationship to other features, their nature, extent, date and function.
- 3.2.8 The excavation was monitored on a regular basis by representatives of the Local Planning Authority and WCAS to ensure satisfactory archaeological progress was maintained.

3.3 Recording

- 3.3.1 All excavated archaeological features and deposits were recorded using Wessex Archaeology's pro forma recording sheets and recording system. This system uses a sequential unique context numbering system with individual contexts prefixed by the relevant trench number – thus trench 5 numbers proceed from 501 etc.
- 3.3.2 All archaeological trench outlines, features, structures and deposits were surveyed using a GPS, making it possible to relate them to the Ordnance Survey Grid and Datum (aOD) heights.
- 3.3.3 All excavated archaeological features, structures and deposits were recorded on plans and sections, drawn to appropriate scales (normally 1:20 for plans, 1:10 for sections), and referenced to the Ordnance Survey National Grid using GPS. The Ordnance Datum (OD)



height of all principal features and levels were calculated and plans/sections annotated accordingly.

- 3.3.4 A full photographic record was maintained using digital, black and white and colour slide film photography. The photographic record was designed to illustrate both the detail and the general context of the principal features, finds excavated, and the Site as a whole.
- 3.3.5 The methods used by the groundwork contractor, site conditions, weather, progress thoughts and staff attendance were noted in a day book.

3.4 Specialist strategies

- 3.4.1 All artefacts from excavated contexts were retained, including a representative sample of those from features or deposits of obviously modern date. The latter were retained in order to elucidate the date and/or function of the feature or deposit and were discarded subsequently.
- 3.4.2 All retained artefacts were processed by Wessex Archaeology. Bulk roof tile was scanned, identified, counted, weighed and discarded, with only diagnostic fragments retained. All other categories of finds were washed, weighed, counted and identified.
- 3.4.3 Bulk environmental samples were taken from well-sealed and dated or datable archaeological features, principally pits, for plant macro-fossils (charred and/or waterlogged and wood charcoal), small animal bones and small artefacts.
- 3.4.4 These samples were processed by flotation and assessed to establish the environmental potential of deposits, with recommendations made for those with potential for further detailed analysed. The residues and sieved fractions have been recorded and retained with the project archive.
- 3.4.5 Assessment analysis of charcoal from industrial contexts may provide useful data on both availability of species and their management and exploitation for fuel. This will be undertaken in tandem with assessment of slag and any other industrial by products that may be found.

4 ARCHAEOLOGICAL RESULTS

4.1 Introduction

- 4.1.1 The excavation phase of work was preceded by the two evaluation trenches which were dug to assess the potential and survival of archaeological deposits, features and structures across the site. These two trenches were positioned according to available space but were located to provide as comprehensive a sample as possible across the development area. The two archaeological evaluation trenches were assigned numbers 1 and 2; subsequent excavation areas were allocated numbers 3-8 (**Figures 1** and **2**).
- 4.1.2 The results of the trial trench evaluation (see section 2.2 above) confirmed activity within the Vanner's Chequer from at least the 13th and early 14th centuries and suggested that it might be possible to recover an uninterrupted record of subsequent occupation on the Site.

4.2 Trench 3

4.2.1 Trench 3 (**Figure 3**; **Plate 1**) was approximately 'L'-shaped, covering 88.75 sq. m, and was located immediately east of the former Registry Office, within the area of evaluation

Trench 2. It lay to the rear of 54-56 Bedwin Street and provided the only opportunity to examine tenements on the north side of the Vanner's Chequer.

- 4.2.2 A thin layer of topsoil (**301**) overlay a more substantial deposit of modern made-up ground comprising brick rubble (**302**) with underlying garden soil (**307**), which collectively measured 0.70 m thick in the east section of the trench.
- 4.2.3 This deposit covered the foundations of an insubstantial wall foundation (**305**) and brick floor (**306**), the latter laid on a rammed chalk foundation. These remains (see **Figure 2**) extended from the rear wall of 56 Bedwin Street and represented a lean-to greenhouse, which appears on Ordnance Survey mapping from 1879 to 1953, but which had been demolished by 1971. The structure was cleaned, photographed and surveyed before removal.
- 4.2.4 This phase of activity also included a spread of compact gravel (**311**), 0.34 m thick, which may represent an adjacent garden path that is indicated on the 1879 Ordnance Survey map.
- 4.2.5 These 19th and 20th century deposits sealed a garden soil accumulation, 0.58 m thick, of mid grey-brown silty clay (**310**), which contained an assemblage of reworked pottery, some of 17th century date, animal bone, roof tile and shell.
- 4.2.6 No features were detected that cut through deposit (**310**), which was predominantly removed by machine to reveal features that were cut into the natural silty clay 'brick-earth' (**312**). However, subsequent excavation of pit [315] demonstrated that this feature, at least, had been cut through the lower parts of this the garden soil.

Ditches

- 4.2.7 Three linear features, comprising two shallow ditches/gullies [**326** and **331**] and a terracetype feature [**328**], were aligned N-S. They occupied a strip, approximately 4.2 m wide, across the trench.
- 4.2.8 Linear [**326**], on the east side, was a shallow ditch, approximately 1.4 m wide and 0.13 m deep with concave sides and a flat base.
- 4.2.9 Approximately 0.25 m to the west was the lip of a shallow terrace-type feature [**328**] and beyond this a ditch/gully [**331**]. The latter measured 0.79 m across and 0.12m deep. No stratigraphic relationship was established between these two features.
- 4.2.10 The linear features were all filled with undifferentiated dark grey or grey-brown silty clay, (327, 329, 332). The terrace feature [328] was overlain by a thin, pale yellow, sandy mortar wall foundation (330), 0.46 m wide and 0.02 m thick. This deposit could be traced southwards towards Salt Lane, fringing the east side of Trench 6 and aligned on walls in Trench 7. To the north it could be related to a chalk wall foundation (317), which ran E-W at the north edge of the trench. The mortar spread broadened out and thinned (337 and 338) and was coincident with a layer of tiles capping wall foundation (330).
- 4.2.11 These linear features appear to represent a series of tenement boundaries, the line of which is shown on the Ordnance Survey mapping. Whether they represent a single, multiple or sequence of tenement boundaries is unclear.
- 4.2.12 It is also unclear as to whether they relate to the initial setting out of the chequer or to some subsequent re-planning. Ditch/gully [**331**] was cut by pit [**343**], which contained a

single sherd of 13-14th century pottery, whilst terrace/linear [**328**] contained a seal matrix which is also likely to be of 13th or 14th century date.

4.2.13 These linear features remain otherwise undated; nevertheless, the terrace-type feature [**328**] contained virtually no roofing tile, suggesting that no large-scale demolition of roofs had taken place, and none of the features contained late or post-medieval material. In contrast, the presence of albeit small quantities of 13th and 14th century material argue that these features may relate to the initial setting out and earliest phases of activity within the tenements.

Walls

- 4.2.14 A section of chalk wall foundation (**317**) was cut through the fill (**329**) of the terrace-type feature [**328**]. The foundation was located at the north edge of the trench, on a line that is perpetuated by the present boundary wall at the rear of 54 Bedwin Street. The foundation, which measured approximately 0.35 m wide and 0.85 m deep, ran for approximately 2.80 m E-W, before turning northwards at both ends, where it had been robbed out [**333**].
- 4.2.15 Wall foundation (**317**) comprised chalk blocks and some re-used roof tiles, bonded by a pale yellow brown sandy mortar. The chalk blocks were laid directly against the southern edge of the foundation trench but were coursed more carefully and dressed on the northern side.
- 4.2.16 The upper surface of the foundation was capped by horizontally laid roof tiles, which are likely to represent a levelling surface on which to lay a timber beam.
- 4.2.17 The roof tile levelling surface was continuous with a spread of mortar (**337**, **338**), possibly a 'floor' or construction spread, which joined the mortar wall foundation (**330**) of the tenement boundary. The length of chalk wall foundation (**317**) also coincided broadly with the distance separating the tenement boundary ditches/gullies [**326**] and [**331**].
- 4.2.18 The construction date of wall foundation (**317**) and its function remain unclear, although its stratigraphic links with the mortar wall foundation (**330**) indicate that it not likely to have been part of the initial layout of the tenements. In terms of its function, the depth of the foundation suggests that it probably formed part of a rear gable of a building.
- 4.2.19 Hawkes (n.d.) commented on the use of chalk in isolation as a building material, noting that it did not generally form part of street frontage buildings but was generally restricted to outbuildings and backland structures of 16th century or later date. This general model finds some parallels here.
- 4.2.20 However, it is apparently contradicted by the extensive use of chalk on the Salt Lane frontage and in the chalk-lined shaft **[410]** (see below). The former is clearly earlier, being associated with early medieval pottery in floor make-up layers and the earliest in the sequence of structures on the street frontage.

Pits

- 4.2.21 A number of refuse pits were also recorded, which were predominantly located along the southern fringes of the trench. Pit **[313]** comprised an undated, sub-rectangular feature that extended 0.80 m from the eastern section of the trench and was 0.12 m deep.
- 4.2.22 Pits [**315**] and [**316**] were located in the south-east corner of the trench and both extended from the section, allowing no more than a sample excavation of each pit.



- 4.2.23 Pit [**315**] was cut through the basal part of the overlying soil horizon and was filled with layers of mid grey brown silty clay (**320**, **321**) which contained an assemblage of 15th -16th century pottery, CBM, animal bone and oyster shell.
- 4.2.24 Pit [316] was filled with a similar range of deposits to pit [315]. This made it difficult to differentiate the upper fills (324) of pit [316] from those of pit [315]. However, a layer of redeposited natural 'brick-earth' (323), possibly a sealing deposit, established that pit [315] was cut by pit [316]. The primary fill (322) comprised dark grey-brown silty clay, and pit [316] contained pottery of 17th century date with CBM, oyster shell, animal bone, iron objects and burnt flint.
- 4.2.25 The base of neither pit could be reached by excavation due to the depth of overburden, however an auger bore-hole transect demonstrated that the base of both pits lay approximately 0.74m below the surface of the natural 'brick-earth'.
- 4.2.26 Pit **[343]** was a sub-oval feature with shallow, concave sides and a flat base that measured 0.67 m long, 0.58m wide and 0.32 m deep. It was cut through the fill of ditch/gully **[331]** or terrace feature **[328]** and was filled with mid grey silty clay. Apart from CBM, oyster shell and animal bone it contained a single sherd, possibly, but not certainly residual, of 13th-14th century pottery.
- 4.2.27 Pit [347] was an oval pit measuring 3 m N-S which extended 1.1 m from the west edge of the trench. A quadrant sample indicated that the upper fills (350 and 351) comprised mid grey-brown silty clay and contained a similar suite of material to other pits in the trench. This pit also included a layer of redeposited natural 'brick-earth' that had been tipped in from the north side, possibly as in pit [316], to seal insanitary refuse. The underlying primary fills (348) could not be excavated due to depth which was established by an auger transect. This demonstrated that the base of the pit lay a further 0.75 m below the depth of excavation, a total depth of 1.5m. Pottery from the feature included residual sherds of 13th-14th century date, with the majority of the assemblage dated to 15th-16th centuries.
- 4.2.28 The material from these pits may, therefore, be related to early use of the building currently occupying the 54-56 Bedwin Street frontage or to the large property that appears to have occupied the central part of the chequer during the early 16th century.

4.3 Trench 4

4.3.1 This area excavation (**Figure 4**), which measured approximately 11 m E-W by 9 m N-S, lay in the central part of the Vanner's Chequer. It not only examined the axial wall dividing equally the northern and southern parts of the chequer, but also revealed a rectangular chalk-lined shaft and a number of domestic rubbish pits that were predominantly of late medieval date.

Chequer dividing wall

- 4.3.2 The northern edge of the trench was formed by the foundation of a boundary wall that divided the Bedwin Street properties to the north from the Salt Lane properties to the south. This wall was of sufficient importance that it was originally built in stone [406] and had undergone a number of clear phases of repair and replacement, culminating in a brick construction [402] (see Figure 2), while maintaining the permanent line of the boundary.
- 4.3.3 The date of the initial phase of wall construction [**406**] is uncertain. It was built in a shallow foundation trench that was cut into a garden soil (**408**). This suggests that it is unlikely to be of early medieval date, although Hawkes (n.d.) notes that a number of early medieval backland boundaries were constructed of stone.



- 4.3.4 The wall foundation measured 0.4 m thick and 0.3 m deep and was bonded by a sandy light brown mortar. It was initially of chalk and flint rubble construction, but was subsequently repaired using brick and a reused fragment of Greensand drain-channel at its junction with wall **[409**].
- 4.3.5 Wall **[409**] formed one of three possible tenement boundaries, which broadly correlated with present boundaries adjacent to Bedwin Street, and which butted onto wall **[406**]. These individual tenement boundaries were built of chalk **[432**], chalk and flint **[409**] or flint **[441**], with occasional use of brick repair.
- 4.3.6 Similar tenement sub-divisions were absent to the south, suggesting that this area may have been maintained as an open space for a considerably longer period of time.
- 4.3.7 It is possible that the rebuilding of wall **[406]** was related to the construction of the former Registry Office. Wall **[406]** was replaced by one of brick **[402]** on a slightly different alignment, but broadly retaining the foundations of the earlier wall. The bricks were bonded by grey sandy mortar, similar to that recorded in Victorian brickwork on Salt Lane **[812]**.
- 4.3.8 The land to the south of wall [402] was covered by a deposit of light grey clay (403), approximately 0.1 m thick, which butted up to the lower parts of the wall. The layer may represent a yard surface associated with a number of small outbuildings shown on the 1879 edition of the Ordnance Survey. This deposit was cut into by a shallow scoop [404], possibly a tree/shrub bowl as depicted by the Ordnance Survey, but overlay deposit (418). Excavation demonstrated that deposit (418) represented the fill of one large or a cluster of smaller late medieval rubbish pits.

Chalk-lined shaft

- 4.3.9 A rectangular chalk-lined shaft [GP **420**, comprising walls **410**, **411**, **412** and **413**], with a 'buttress' extension in the south-east corner, lay perpendicular to and 0.5 m south of the boundary wall [**406**], strongly respecting the geometry and lay-out of the chequer. This suggests that elements of the original divisions of the chequer were maintained from the time of their original survey. The shaft was sampled by a section at the north-east corner which exposed an internal area of approximately 1m N-S by 0.7 m E-W. The section was designed to establish details of construction, date, function, the eventual back-filling and the date of abandonment.
- 4.3.10 Excavation established that the shaft measured approximately 4m N-S by 2.5 m E-W externally, 2.5 m by 1.6 m internally, and was 1.8 m deep (**Plate 2**). Near the surface the courses of chalk blocks were irregular; however, the main part of the shaft was constructed of faced chalk blocks, laid in courses, approximately 0.15 m high and bonded by a green sandy mortar.
- 4.3.11 Nothing was found to demonstrate the date of construction, although a date in the 13th or 14th century seems most likely, possibly contemporary with the extensive use of faced chalk blocks in the foundation wall of the tenement on the Salt Lane street frontage (see below).
- 4.3.12 The floor of the structure could not be examined in detail due to the restricted area of excavation at the base and the excessive depth. It may have been formed by the natural combe rock, although no traces of periglacial activity were apparent, but did not appear to comprise rammed chalk or mortar. There was nothing to indicate trampling or discolouration of the surface. A veneer of dark sediment covered the base, although



whether this resulted from episodic flooding, was a product of use, backfill or natural silting could not be resolved.

4.3.13 The shaft was filled by a single unit of dark grey-brown silty clay (**421**) which contained fragments of CBM, animal bone, oyster shell and pottery. The date at which this infilling occurred is unclear, although it may have been as early as the 14th or 15th centuries when a refuse pit [**424**] was cut through the south wall (**412**); another pit [**414**] was dug through the construction cut of the shaft on the eastern side. There was insufficient material to indicate that the shaft had been used as a convenient rubbish pit and most of the pottery, which predates the 17th century, was recovered from the upper parts of the fill. A cess pit is considered the most likely function for this shaft, particularly given the presence of a notable amount of mineralised plant remains (see **Appendix 1**).

Rubbish pits

- 4.3.14 A large refuse pit [**417**], approximately 1.8 m diameter, lying on the east side of the trench was not sectioned, due to time constraints. Sherds of 13th and 14th century pottery were found on the machined surface.
- 4.3.15 A number of other large, late medieval rubbish pits were dug in this area, possibly coincidental with the reduced use or abandonment of chalk-lined shaft [**420**]. One of these features, [**424**], cut through the wall construction of the shaft. It is most probable that the use of these pits relates to occupation of the Salt Lane frontage, with rubbish discarded close to the clearly defined tenement boundary. However, it is also possible that the material derived from the house of Richard Freeman, of which no archaeological evidence was found in the excavation, but which is recorded as having stood in the northern part of the Vanner's Chequer by 1504.
- 4.3.16 Pit **[414**] measured 2.2 m in diameter, was 0.8 m deep and produced pottery of 14th/15th century date. Pit **[424**] was probably oval, 1.8 m N-S and 1.3 m E-W, with steep convex sides that tapered to the base. This pit contained a sherd of modern flower pot, but otherwise produced a pottery assemblage of predominantly late medieval date.
- 4.3.17 A very large irregular feature or pit complex, filled with deposit (**418**), was excavated in a rapidly dug section at the end of the excavation to obtain a representative sample of dating material. This feature, or feature complex, was cut by pit [**414**], and also contained 15th/early 16th century material.
- 4.3.18 Pits continued to be dug in this area in the post-medieval period, including pit [**429**] over 2m in diameter that extended from the south baulk. There were also larger areas of general disturbance, including the south-west corner of the trench and a 'ribbon' of land extending along the eastern section. Archaeological deposits in these areas had been totally removed by massive, undefined intrusive workings of 19th century date, the latter containing material linked to the William Morgan clay tobacco pipe industry.

4.4 Trench 5

4.4.1 This irregularly shaped trench (**Figure 5**), which lay within an area approximately 12 m N-S by 11 m E-W, was laid out in the back lands of the Vanner's Chequer, an area that had been used as garden plots and back yards. Ordnance Survey mapping indicated that development had encroached across the area during the 19th century, as houses on the street frontage were extended or as outbuildings were constructed, some for industrial use.



- 4.4.2 Archaeological features were preserved beneath approximately 1 m of soil and demolition rubble across most of the trench. An extension in the SW corner showed that the surface of the natural geology in this area had been heavily truncated by construction of the former engineering works.
- 4.4.3 The base of a shallow tenement boundary ditch [**503**], dividing Nos 41 and 43 Salt Lane, was aligned N-S through the trench. It measured 0.54 m across and 0.11 m deep with a rounded base and sides. The ditch was filled with mottled orange silty clay (**504**) derived from the natural 'brick-earth'.
- 4.4.4 There was nothing to indicate that the boundary line had been marked subsequently by a wall as represented by the shallow chalk foundations in Trenches 3 and 6. Such evidence may have been truncated; however, it may also point to flexibility of backland use as boundaries were removed and reinstated along their former lines as ownership and land use changed. This evidence confirms the Ordnance Survey mapping which shows the area as an open yard by the 19th century.
- 4.4.5 The probable impermanence of the boundary and the open yard was confirmed by the presence of a brick-lined pit [508] (see Figure 2) which overlay the boundary ditch (Plate 3). The pit measured approximately 2.9 m long, 1.15 m wide and 0.33 m deep. It was constructed of five courses of predominantly reused half-bricks (509) set in a pale yellow brown mortar.
- 4.4.6 Pit [**508**] was filled with a primary fill (**514**) of mid grey silty clay loam, 0.14 m thick, which was overlain by a dump of dark grey/black ashy material (**515**) which included Victorian pottery, slag and large quantities of William Morgan's clay tobacco pipe wasters, kiln furniture and debris. The pit was subsequently bisected by a modern service trench.
- 4.4.7 A segment of a shallow pit [505] extended for approximately 2 m from the north-east corner of the trench. It measured 0.18 m deep, was filled with orange-brown silty clay (506) and contained animal bone, tile, oyster shell and pottery of 13th/14th century date. The fill was overlain by a dump of pipe clay (507) that may have been derived from a store or preparation area where clay was allowed to weather before use.
- 4.4.8 No trace of a clay tobacco-pipe kiln was found. It probably lay to the south of Trench 5 in an area shown on the 1879 Ordnance Survey as outbuildings. This area is likely to have been heavily affected by construction of the engineering works in the 1960/70s.
- 4.4.9 Two pits, **[510**], which measured 1.1 m long, 0.63 m wide and 0.15 m deep, and **[512**], which was 0.85 m in diameter and 0.12 m deep, were subject to rapid investigation to recover dating material. Both were filled with mid grey brown silty clay (**511** and **513**) and contained small amounts of tile and animal bone but no pottery. The pits remain undated, but given their dimensions, they might fit more comfortably with the earlier medieval pits than with the larger, later medieval and post -edieval ones.

4.5 Trench 6

- 4.5.1 This trench comprised an area excavation (**Figure 6**), 11.5 m E-W and 8.5 m N-S, towards the east of the Site within the 'back-lands' of the chequer.
- 4.5.2 The upper layers of demolition rubble masked a pattern of brick walls of probable 19th century date (see **Figure 2**). The walls included the tenement boundary wall [**603**], aligned N-S, that perpetuated the line of the tenements between Nos 47 and 49 Salt Lane with its



projection to Bedwin Street. This wall survived as a shallow foundation of three courses of mortared bricks.

- 4.5.3 Other walls [602, 604, 607] and [608] demarcated the rear of buildings at Nos 45 and 47 Salt Lane; walls [608], a double-celled unit, served with drains, probably represents a toilet out-house at the north end of the former No 45 Salt Lane. These structures, which originated as post-medieval infill within the central part of the chequer and tenement boundaries, can be correlated with those shown on sequential editions of the Ordnance Survey mapping from 1879.
- 4.5.4 These 19th century wall foundations and general garden soil overburden (**628**), approximately 0.8 m thick, were removed by machine to reveal a relatively thin spread of archaeological features cutting the surface of the natural 'brick-earth'.
- 4.5.5 The underlying features included linear, N-S aligned tenement boundaries [618 and 642], predating those of brick in the east, together with a scatter of rubbish pits.
- 4.5.6 Some of the pits lay on the tenement boundaries, providing a stratigraphical relationship between them. However, these pits were relatively shallow and contained only limited quantities of diagnostic material, providing little more than a relative chronology.
- 4.5.7 Other, larger pits lay within the tenement plots and contained bigger artefact assemblages that could be could be dated more closely.

Boundary ditches

- 4.5.8 Two linear tenement boundaries were identified and sectioned, in an attempt to date their lay-out, longevity and phasing.
- 4.5.9 The foundation of wall **[603]** overlay post-medieval pit **[625]**, containing animal bone, CBM and clay tobacco pipe; only a narrow segment of the pit was exposed in the eastern edge of the trench. Pit **[625]** was cut through both the soil accumulation **(628)** and a shallow wall foundation **[618]** which ran parallel to wall **[603]**.
- 4.5.10 Wall foundation [618] was 0.26 m wide, 0.08 m deep and composed of chalk rubble mixed with larger chalk blocks and flint nodules. The foundation was cut into the top of a shallow linear ditch/gully [619] with sloping sides and a flat base. Ditch [619] extended 1.4 m from the east section of the trench, was 0.32 m deep and filled with light grey-brown silty clay (620) that was virtually indistinguishable from the overlying soil (628). Sherds of post-medieval pottery from the ditch were insufficient to provide an accurate date of construction. Ditch [619] was also cut by a linear feature [621] which contained modern ceramics.
- 4.5.11 Approximately 4 m west of this tenement boundary complex was a similar set of tenement boundaries with associated pits, which divided Nos 45 and 47 Salt Lane. The deposits and features were shallow, but provided a tentative sequence of activity which may provide an indication of property boundary development on the site.
- 4.5.12 The initial division was marked by a shallow, relatively poorly defined linear ditch/gully [634] approximately 0.95 m wide and 0.12 m deep with a shallow rounded base. It was filled with mid orange-brown silty clay and was undated.
- 4.5.13 Ditch [**634**] was cut by a circular pit [**636**] which measured approximately 0.5 m across and 0.3 m deep. It was filled with dark grey-brown silty clay (**637**) and contained CBM, animal bone and sherds of 15th-16th century pottery.



- 4.5.14 Pit [636] was sealed by a chalk wall foundation [642] of similar construction to wall foundation [618]. This foundation measured 0.5 m wide and was 0.2 m deep. An ill-defined, thin layer of grey silty clay (638) abutted the wall foundation on the east side. The function of this is unclear, although it may represent the floor of a lean-to type structure. This sequence was overlain by a deposit of dark grey soil (641), probably an equivalent deposit to the overburden (628)
- 4.5.15 Chalk wall foundation [**642**] was cut by pit [**643**], which although containing residual sherds of 17th century pottery, also included modern bricks and glass.

Pits

- 4.5.16 A number of rubbish pits were investigated; others that were clearly of Victorian or modern date were plotted and a selection of material recovered from the surface sufficient to confirm the date. No further action was taken to examine these pits.
- 4.5.17 Pit [**611**] comprised an oval feature, 1.73 m long, 0.9 m wide and 0.47 m deep, with gently sloping sides and a rounded base. It contained a single fill (**612**) of dark grey brown silty clay, with animal bone, burnt flint, roof tile and 13th-14th century pottery.
- 4.5.18 Pit [623] was approximately 0.8 m in diameter and 0.04 m deep and apparently of similar date to pit [611].
- 4.5.19 The remaining pits were larger and dated from the 17th through to 19th centuries. Pit [**613**] extended from the southern section of the trench and measured approximately 2.1 m in diameter and 0.55 m deep, with steep concave sides and a flat base. It was filled with grey silty clay which contained 17th century pottery, CBM, animal bone and oyster shell. The overlying deposits were of a similar character but included residual pottery sherds of 15th century date.
- 4.5.20 Pit [**632**] was unexcavated but contained large assemblages of 19th century material, as did pit [**645**], which produced clay tobacco pipe fragments, bottle glass and CBM.
- 4.5.21 This group of pits, lying within the central part of the chequer, reflects both the relative scarcity of rubbish pits within the central chequer areas, as has been noted within the city previously, and the relative flexibility of tenement boundaries. These may have been replaced temporarily by open yards before being reinstated as ownership changed. This representative sample within the chequer largely reflects patterns elsewhere in the chequer, with early development facing onto the east end of Salt Lane.

4.6 Trench 7

- 4.6.1 This area excavation (**Figure 7**) enveloped the southern end of evaluation Trench 1, which had suggested that archaeological deposits were preserved by as much as 1m below the ground surface. The new building footprint directly overlay the former tenements at Nos 45 and 47 Salt Lane and also extended to the west edge of No. 49. This trench provided an opportunity to examine the street frontage development.
- 4.6.2 However, the modern street frontage at the time of excavation, like that in Trench 8, was set back from the original building line. It was therefore impossible to locate or examine the front elevations of any buildings.
- 4.6.3 The excavation of Trench 7 produced a modest assemblage of pottery which, together with stratigraphic evidence, made it possible to compile a chronological development within this part of the chequer.

- 4.6.4 The removal of demolition rubble across the trench area revealed a series of brick walls (see **Figure 2**) which could be correlated with those shown on consecutive editions of the Ordnance Survey from the 1879 edition. This mapping indicates that the ground plans of these properties were established by this date and thereafter remained virtually unaltered with only minor modifications to the rear.
- 4.6.5 The most recent structural evidence comprised the foundations of the brick terrace which formed Nos 45-49 Salt Lane. Nos. 47 and 49 were described in detail by the Royal Commission of Historic Monuments (RCHM 1980). This survey recorded features that indicated these buildings retained features of 15th and 16th century date. The gazetteer also noted that both buildings had been modernised, including the addition of brick-lined cellars along the street frontage.
- 4.6.6 These modifications were apparent towards the southern edge of the trench, where brick wall foundations (see **Figure 2**), with cellars to the south, had removed any trace of early floors, internal divisions or associated features.
- 4.6.7 It is uncertain whether, or to what extent, structural features identified in the archaeological excavation were components of the original construction that were later incorporated into the modified 'shell' of the building that was described by RCHM (1980).
- 4.6.8 Walls in Trench 7 comprised identifiable parts of the tenement layout. These included wall [702/703], which formed the boundary between Nos 47 and 49 Salt Lane, and which continued to the north as wall [603] in trench 6.
- 4.6.9 The rear elevation of Nos 45 and 47 comprised a continuous line evident as wall [**706**], with wall [**712**] dividing the two properties. Wall [**728**] separated the front rooms of each tenement from the rooms to the rear.
- 4.6.10 Wall **[728]** followed the line of an earlier wall foundation **(727)** of flint and chalk construction, leaving only two small remnants to indicate the line of the earlier phase wall.
- 4.6.11 The front and rear rooms of each tenement were heated by fireplaces placed back-toback centrally within wall **[728]**.
- 4.6.12 The rooms on the street frontage had underlying brick-built cellars, which had totally destroyed all traces of earlier phases. The presence of these cellars, and the destruction of an earlier phase structure by wall [**728**], indicate that elements of the tenements were totally rebuilt in brick, probably sometime in the 19th century.
- 4.6.13 Brick-built outbuildings to the rear of No. 45 Salt Lane, including a probable toilet block, were identified and recorded in Trench 6.
- 4.6.14 Removal of this phase of building revealed a number of probable quarry pits, rubbish pits, wells and earlier foundations that predate the 19th century phase.
- 4.6.15 Archaeological features were relatively thinly distributed across the area, with a noticeably reduced density of medieval features, especially pits, and no stake holes. This may be due to truncation of the 'brick-earth' but may also reflect a genuine lack of early settlement in this corner of the chequer.

Quarry pits

4.6.16 The central and eastern parts of the trench were largely taken up by two very large pits [726] and [755], probably quarries for the extraction of 'brick-earth'. The pits were



separated by a narrow 'spine' of un-dug 'brick-earth' which corresponded with the projected line of the tenement boundary separating Nos 45 and 47 Salt Lane. It is quite possible that this un-dug land reflects the early existence of the land division.

- 4.6.17 Quarry pit [**726**] was oval in plan, measuring approximately 5 m N-S, 4.3 m E-W and approximately 1.5 m deep. The feature, which was investigated in the north-east quadrant, was cut with very steep or vertical sides and the base was flat. The sample excavation was targeted to record a representative section through the backfilled deposits and to examine the construction techniques, dating and stratigraphic relationships of two wells which were cut into the quarry pit.
- 4.6.18 The profile of the quarry pit was sharp, with no clear evidence of natural weathering on the base, suggesting that the feature had not remained open for long and was backfilled soon after 'brick-earth' had been extracted. The natural sedimentary profile, as exposed in the side of the pit, comprised fluvial sand and gravel at a depth of 1.6 m below ground level, which corresponded with the base of the quarry pit. The sandy gravel was overlain by brown clay 'brick-earth', with varying amounts of silt and sand.
- 4.6.19 'Brick-earth' of this type was present across much of the site but nowhere else to a comparable depth. Elsewhere the 'brick-earth' capped chalky coombe rock and pockets of fluvial gravel.
- 4.6.20 The date of extraction was difficult to establish, although the primary mid-dark grey-brown clay and sandy silt (**740**) with pebbles produced a sherd of 15th-early 16th century pottery.
- 4.6.21 The secondary fills were characterised by relatively stone-free, mid brown sandy clay (**739**) and were capped by a layer of stoney, dark grey-brown, sandy silt (**734**). The tertiary deposit produced three sherds of medieval pottery, which are likely to be residual, as well as a sherd of 19th-20th century pottery, which probably relates to later redevelopment of the tenement. Both deposits contained fragments of oyster shell.
- 4.6.22 The modest number of artefacts suggests, quite strongly, that the feature did not function as a refuse pit. Indeed the lack of complex stratigraphy and the nature of the fills suggest that backfilling was probably deliberate using material sourced from elsewhere.
- 4.6.23 The eastern end of the excavation was occupied by part of another substantial pit [**755**] of unknown extent eastwards. Evaluation trench 1 fell largely within this feature, which accounts for the excessive depth recorded in that trench. It is almost certain that the northern edge of this quarry pit is that sampled in the evaluation as pit **136**. It is probable that a similar feature, sampled by the evaluation, lay to the north of Trench 7
- 4.6.24 The upper fills of the feature, much of it backfill from evaluation Trench 1, were removed by machine until the edges of the pit could be clearly defined against the natural 'brick-earth'. This indicated a slightly lobed plan. The profile of the pit was largely reconstructed from its presence in the southern section of the excavation. This showed that the sides were irregular and sloped down towards the base.
- 4.6.25 A sample section aligned E-W across the base of pit [**755**] indicated that the west edge was stepped before descending to the base, which could not be reached by excavation. Augering established that the base was 0.7 m below the lowest level of excavation, providing a total depth for the pit of approximately 1.6 m below the upper surface of the 'brick-earth', similar to that of pit [**726**].



- 4.6.26 The primary filling (**756**) comprised mid orange-brown silty clay, which probably represents redeposited 'brick-earth'. This layer produced no artefacts and was sealed by a dump of light sandy yellow mortar (**757**), possibly residue from construction work. This layer could be traced across the entire area of the excavated section and thickened to the north.
- 4.6.27 The mortar deposit was sealed by dark grey-brown silty clay (**758**; **137** and **142** of the evaluation), which contained animal bone, some of it articulated, tile, oyster shell and a single sherd of 13th-14th century pottery. This is a comparable suite of material to that recorded in the evaluation. Despite the relative scarcity of material the inclusion of articulated animal limbs indicates that this deposit includes some elements of refuse disposal.
- 4.6.28 The upper filling (**759**; **141** of the evaluation) comprised 0.54 m of mid grey-brown silty clay with fragments of CBM. This horizon was poorly sorted and probably represents a deliberate episode of back-filling. It was removed mechanically, providing very little opportunity to assess the density, type or date of artefacts.
- 4.6.29 In the south-east corner of the trench the lateral equivalent of quarry upper filling (**759**) was apparent as a soil horizon (**736**; probably **140** of the evaluation), comprising very dark grey-brown silty clay, over 0.3 m thick. This soil, which contained post-medieval pottery and other assorted domestic refuse, was overlain by wall foundations [**727**]. It suggests either that that there may have been a hiatus between the backfilling of the pit and the subsequent construction of buildings over it, or that the soil was in part a product of tillage of gardens once the tenements were occupied.

Pits

- 4.6.30 A circular refuse pit [**720**], of approximately 1.9 m diameter, lay towards the western edge of the excavation. The sides were steep to vertical and the base flat. The two fills, a primary (**721**) and secondary (**722**), contained a similar range of finds including animal bone, with tile, oyster, shell, slag and a sherd of medieval pottery in the primary fills. Residual worked flints, with a sherd of flint-tempered Late Bronze Age pottery, were also present.
- 4.6.31 Post-medieval pit [725] was sub rectangular, 0.8 m long and 0.6 m wide, and was cut into the top of quarry pit [726]. Only the basal 0.2 m survived. The feature was filled with a primary deposit of light brown lime mortar (732) which was 0.15 m thick at the edge but thinned towards the centre. This deposit contained a fragment of tile. The primary fill was overlain by mid grey silty clay (731) which contained fragments of brick and tile fragments, animal bone and clay tobacco pipe. This pit was itself cut by the construction pit of well [729]
- 4.6.32 The absence of other rubbish pits in this part of the site is interesting. It contrasts markedly with the relatively dense concentration, with associated stake holes, that was recorded immediately to the west in Trench 8. This observation provides additional support to the argument that the eastern end of the tenement may have been developed later than land to the west.

Wells

4.6.33 Two chalk-lined wells were cut into the top of quarry pit [**726**]. The wells lay along the eastern boundary of No. 45 Salt Lane, although whether they provided an exclusive water source to that property or occupied an open yard shared by both Nos 45 and 47 is not clear. Successive editions of the Ordnance Survey indicate a small open area which



broadly correlates with the projected position of the later well, the earlier well lying beneath the wall of the Victorian tenement.

- 4.6.34 Well **[724]** was constructed within a circular pit **[750]** which measured approximately 1.6 m in diameter. Excavation of the upper portion demonstrated that the well lining **(724)** was constructed of squared, coursed chalk blocks, approximately 70mm high and faced internally. Successive courses were bonded with clay.
- 4.6.35 A circular 'floor' area (**748**), approximately 2.3 m in diameter, of crushed chalk, surrounded the top of the well. This compacted surface overlay the backfill (**749**) around the top of the construction cut.
- 4.6.36 The upper courses of chalk blocks were removed when the well was decommissioned. The shaft was backfilled with mid brown silty clay and sealed using broken peg tiles (**733**) to consolidate the upper 0.45 m of the shaft. There is no way of knowing whether these tiles resulted from a major phase of reconstruction on Salt Lane or were brought from elsewhere.
- 4.6.37 Well **[714]** was probably constructed to replace well **[724]** and was located 2 m to the north. The construction pit **[729]** truncated both the rammed chalk floor **(748)** surrounding the earlier well and also pit **[725]** to the east.
- 4.6.38 The construction pit measured 2 m in diameter, with a lining of coursed chalk bocks with an internal diameter of 0.75 m and an external diameter of 1.15 m. The shaft measured 2.5 m deep, extending approximately 0.5 m below the water table. The well was poorly constructed in comparison with the earlier well. The upper section of the lining comprised three courses of unfrogged bricks bonded in grey sandy mortar.
- 4.6.39 The construction cut was backfilled with mid-dark grey sandy silt (**730**) which contained six sherds of 17th-early 18th century pottery. These sherds are unlikely to have originated from the fill of the quarry pit [**726**], which contained remarkably few finds, so may provide a guide date for construction.
- 4.6.40 Well **[714]** was apparently adapted subsequently and was fitted with a pump. A pipe was laid in a slot that was cut in the chalk lining and the shaft was sealed by a large limestone slab (**715**), 0.8 m square, with angled corners and a recess to accommodate the pipe.

Foundations

4.6.41 Foundations were exposed along the entire length of the trench, some demonstrating early medieval phases of development within the former Nos 47-49 Salt Lane. No early building foundations were discovered in the property forming No. 45 Salt Lane. However, fragmentary, yet continuous wall foundations [727 and 753] spanning Nos 47 and 49 Salt Lane make it likely that No. 45 was also developed at this time. These wall foundations are likely to have been largely destroyed by subsequent 19th century development.

45 Salt Lane

4.6.42 The earliest evidence for structural development in No 45 Salt Lane is in the form of an outhouse or range, defined by shallow chalk foundations [716, 717, 718], although these walls may have been of different phases. Wall [716] was aligned N-S and comprised a shallow foundation, 0.36 m wide and 0.15 m deep, of nodular flint and chalk construction, bonded by beige chalky mortar. The foundation was built over the backfilled quarry pit [726], but was itself cut by the construction cut [729] for well [714], which is believed to be of 17th or early 18th century date.

- 4.6.43 Floor levels to the west of wall [**716**] were represented only by clay floor (**738**) and its associated make-up layer, which probably represents a need to consolidate the floor foundation above the backfilled quarry pit [**726**].
- 4.6.44 To the north a fragment of chalk foundation [**718**], 0.4 m wide, was exposed in the edge of the trench. Insufficient of its construction remained to determine whether it represented an exterior or interior wall.
- 4.6.45 The southern elevation was represented by wall [717], of which only a stump of flint and chalk construction remained at the eastern end. The foundation was marked by a bed of mortar, of similar character to examples recorded in tenement boundaries, and was constructed over a series of thin make-up/levelling layers (760, 761) and also apparently above the clay floor (738). Make-up layer (761) was itself cut by a single undated post hole [765].
- 4.6.46 An ephemeral internal dividing wall turned north from the east end of wall [717], in the angle of which was a clay base heavily reddened by heat (719), suggesting that an oven or hearth had occupied that corner. Beyond the east end of wall [717] there was a gap to the south end of wall [716], marking a possible entrance.

47 Salt Lane

- 4.6.47 Structural remains in No. 47 Salt Lane were restricted on the south side to a stump of flint and chalk wall foundation (**727**) bonded with pale yellow mortar. The fragment lay on the same alignment as the wall of the later Victorian brick terrace ridge line, which had otherwise destroyed all traces of the earlier wall.
- 4.6.48 Wall foundation [**727**], which measured 0.3 m wide and 0.1 m deep, was cut into the garden soil overlying quarry pit [**755**]. It extended 1m W-E before turning south for a similar distance, marking a probable internal dividing wall.
- 4.6.49 The tenement boundary between No. 47 and No. 49 Salt Lane was marked by a wall of two distinct phases. A thin bed of pale yellow chalky mortar (762) (which probably correlates with (140) of the evaluation), laid into the upper fill (759) of quarry pit [755], provided a foundation for the first phase wall [771] (Figure 7, inset). This wall was poorly preserved and survived as a single facing of flint nodules and chalk, bonded with mid brown silty clay.
- 4.6.50 A hearth [**770**] of pitched, reused roof tiles that were heavily degraded by heat, and aligned primarily E-W, was built against the wall but separated from it by a kerb of tiles, also set on edge (**Plate 4**). This hearth measured at least 0.87m long, 0.76 m wide and was 0.09 m thick.
- 4.6.51 A 'D'-shaped oven [**769**] 1.02 m long, 0.82 m wide and surviving to a height of 0.16 m was built on a foundation of flint, tile and stone to the north of the hearth (**Plate 4**). The surviving oven comprised four courses of reused roof tiles bonded together by orange sandy clay.
- 4.6.52 The tenement was subsequently redeveloped by sealing the hearth and oven with a deposit of mid yellow-brown silty clay (**768**) which provided a foundation layer for the construction of a second phase wall on the same alignment as wall [**771**].

- 4.6.53 The rebuilt wall **[751]** measured 0.36 m thick and survived to a height of 0.28 m. It was constructed using a combination of Greensand blocks, reused tiles, partially dressed chalk blocks and flint nodules.
- 4.6.54 A hearth [**767**], with a pitched tile kerb [**780**] of similar construction to hearth [**770**], was also built into the wall. This feature measured 1.56 m long, 0.51 m wide and was 0.11 m thick. The tiles were laid in blocks, E-W at the edges and N-S in the centre.
- 4.6.55 The line of wall **[751]** could be traced to the south where it joined the wall aligned E-W **[727/753]**, although it is uncertain whether these walls were related to wall **[751]** or the first phase wall **[771]**.

49 Salt Lane

- 4.6.56 Development at No. 49 Salt Lane appears to be represented by only a single phase of construction, possibly related to the refurbishment of No. 47 Salt Lane, as evident in the rebuilding of wall [771].
- 4.6.57 The initial use of the tenement appears to be represented by a pit [**784**] which measured approximately 2 m across and extended from the section by 1.2 m. Augering established that it was 0.8 m deep. It was filled with chalk-based mortar that may have been derived from the demolition of the wall forming phase 1 of No. 47 Salt Lane.
- 4.6.58 Subsequent building on No. 49 Salt Lane comprised wall [753] which continued the line of wall [727] (at No. 47 Salt Lane) eastwards. The junction of wall [727/753] with walls [771 or 751] was marked by a dog-leg, possibly to accommodate the pitched tile hearths (770/767), or suggesting perhaps that No. 49 may have been added to an existing structure.
- 4.6.59 Wall [**753**] can be projected eastwards to the present wall-line defining the rear tenement wall of the adjoining property No. 51.
- 4.6.60 The rear elevation of No. 49 Salt Lane was defined by wall foundation [752], which measured 0.34 m wide and 0.07 m deep, and lay approximately 4m north of wall [753]. It was constructed predominantly of roughly dressed chalk blocks with fragments of sandstone, similar to wall [751], with which it was probably contemporary. This wall also reflected the rear wall line of ranges of adjoining tenements.
- 4.6.61 The internal floor levels survived only as a thin, poorly preserved make-up level (**790**) that was visible in the east section of the trench.
- 4.6.62 The principal features of the tenement provided no datable artefacts, however the construction of both hearths against a wall suggests that they were built with a chimney and, therefore, of likely late medieval or post-medieval date. The postulated chronology of wall [**716**], with datable pottery from the backfilled construction cut of well [**714**] is in accord with the recorded history of construction in these tenements, assigned to the 15th-16th century (RCHM 1980).
- 4.6.63 The model for development in this part of the chequer therefore suggests that construction extended eastwards from buildings with medieval origins. If this is so it suggests that No. 47 Salt Lane predated No. 49, although the time span may have been relatively short.



4.7 Trench 8

- 4.7.1 Trench 8 contained the most complex and well preserved stratigraphy sequence on the Site, providing a virtually unbroken sequence from the 13th-14th century onwards (**Figure 8**).
- 4.7.2 The trench, which measured approximately 12.7 m E-W and 9.1 m N-S, corresponded with the most recent tenements of Nos 37-41 Salt Lane. The archaeological deposits to the north had been totally removed during construction of the engineering works, whilst the land to the east had been truncated, leaving an undisturbed area of approximately 6 x 3.5 m in the south-west corner of the plot (**Plate 5**).
- 4.7.3 This area was excavated by a series of alternating quadrants. This technique provided a continuous section of the stratigraphy that made it possible to reconstruct the overall development of the area, without the requirements of total excavation.
- 4.7.4 The results of excavation demonstrated that the tenement had developed in two major phases; a primary stage represented by pits, post holes and stake holes, and a secondary development apparent as a building that was constructed on stone foundations. This was itself represented by multiple phases of construction and renovation.

Phase 1

- 4.7.5 The initial phase of occupation comprised a series of ten rubbish pits, four post holes and a miscellaneous assortment of stake holes. Rubbish pits, some of which were intercutting, were found beneath floors of the subsequent medieval building and also to the north of the building. The former, therefore, clearly predate the construction of the building while those to the north may also be contemporary with its use.
- 4.7.6 The pits ranged from 0.28-3 m (mean 1.05 m) in diameter and 0.1-0.65 m (mean 0.31 m) in depth. They were filled with grey or grey-brown silty clay and contained 13th-14th century pottery, animal bone, tile and oyster shell. The presence of tile suggests that structures with tiled roofs were already present in the city when the pits were dug.
- 4.7.7 The four features classed as post holes shared similar dimensions to some of the smaller pits, ranging from 0.35-0.6 m (mean 0.45 m) in diameter and from 0.14-0.26 m (mean 0.22 m) in depth, providing possible alternative interpretations for a number of the features.
- 4.7.8 The area of excavation was too small to recover or reconstruct meaningful patterns of features, especially post holes. These features aside there was no other evidence, such as hearths or floors, that might indicate the presence of timber buildings.
- 4.7.9 These pits, post holes and stake holes appeared to be concentrated along the street frontage, on land that was used subsequently for buildings. The reduced density in trench 7 may reflect the fact that land to the east was truncated. However, it seems more likely that this lower density was related to the fact that settlement to the east appears to have developed at a later date.
- 4.7.10 Irrespective of the exact function of individual features this concentration, type and date of features is similar to the pattern of embryonic occupation noted elsewhere in the city.
- 4.7.11 It is possible that the pits, which by their size probably represent only short term use, relate to temporary occupation by construction gangs as development in the city spread outwards.

Phase 2

- 4.7.12 Evidence of the first permanent structures in the tenement is represented by a length of stepped wall foundation [1842] aligned E-W, which formed the rear elevation of the building (Plate 6). The foundation, probably for a substantial timber-framed building, was traced continuously for 7 m from the eastern wall of No. 35 Salt Lane, which marked the western extent of the Site. The line of the foundation could be extended eastwards by a heavily truncated fragment [1828], which undoubtedly reflected the wall-line, but may have been disturbed by the construction/demolition of the engineering works.
- 4.7.13 This continuous foundation of at least 8 m may represent part of the original width of the standard tenement of seven by three perches (115 ft by 50 ft) (RCHM 1980). No trace of the eastern gable wall survived; it is possible that it lay on the line on the tenement boundary that was most clearly apparent in Trench 5, but which could be projected into Trench 8 as a shallow linear gulley [**1825**].
- 4.7.14 The stepped wall foundation [**1842**] was set in a trench [**1807**] approximately 0.8 m wide and cut 0.5 m into the 'brick-earth'. The wall foundation, which measured 0.4 m wide and 0.4 m deep, was bedded on a deposit of dark grey-brown silty clay, approximately 0.1m thick, and was constructed of faced chalk blocks set in a creamy mortar and built against the north edge of the foundation trench.
- 4.7.15 The wall foundation was not systematically dismantled in the excavation; nevertheless, the construction of the foundation at the eastern end was similar to that at the western end, suggesting that it was of one phase.
- 4.7.16 The upper part of foundation [1842], which was stepped and approximately 0.33 m thick, was, in contrast, less consistent in its construction than the lower part, suggesting that it had undergone subsequent phases of reconstruction or repair. Evidence for rebuilding was confirmed by the fact that substantial parts of the foundation trench had been re-cut [1837], truncating overlying floor (1809) in the process. This floor could be traced to the south, where its lateral equivalent (826) overlay the foundation trench [1807] and abutted wall [803].
- 4.7.17 The wall **[1848]** at the western end of the trench was of similar chalk block construction to the lower part of the foundation, apparently bonded to it and therefore of the same phase. To the east the wall **[803** and **1849]** comprised chalk blocks and flint nodules, with ashlar blocks of Greensand interspersed at irregular intervals, a style of construction seen elsewhere in 13th and 14th century construction in the city.
- 4.7.18 The segment of wall, which was defined as **[803]** extended for approximately 1.4 m E-W. It was founded on irregular levelling courses of reused roof tiles and separated from the foundation by a thin bed of dark grey-brown soil. This stretch of apparently rebuilt wall may represent blocking of a rear doorway.
- 4.7.19 The wall **[1849]** at the eastern end was of similar construction but lacked the tile bedding, although a thin veneer of soil was visible. This may also represent a phase of rebuilding, incorporating Greensand in the wall construction, or merely a hiatus between the laying of the foundation and construction of the wall.
- 4.7.20 The interior of the building was represented by a series of superimposed laminated floor surfaces, of which two (826/882/1809 and 852/884/1821) were most prominent and could be traced across the trench with their associated make-up layers. These make-up layers were often thicker where underlying pits had resulted in subsidence of floor levels.



- 4.7.21 The stratigraphy of the floors was relatively well preserved towards the west end, however at the east end of the trench only the lowest floors survived, the succeeding ones having been truncated by later and/or modern redevelopment.
- 4.7.22 No central hearths were found or internal divisions, the absence of the latter suggesting that this may have functioned as a hall type building, possibly divided by timber partitions, and aligned along the street frontage. The southern elevation lay beyond the southern extent of the excavation, but may well survive beneath the present road.
- 4.7.23 A small number of pottery sherds were recovered from the floor levels. These were predominantly of medieval date and, although it is possible that they were introduced with the floor make-up, the absence of later material suggests that the building was probably of later 13th or early 14th century date.
- 4.7.24 Within the meagre assemblage of pottery was a sherd of 15th-16th century Tudor Green, sealed in the upper floor (**826**). This provides a date after which this floor was laid and offers the most reliable chronological indicator for the development of occupation within the building.
- 4.7.25 This floor is of considerable importance, abutting wall **[1848]** to the west but cut through to the east by trench **[1837]**, which marks a major phase of rebuilding of wall **[1849]**, and is also associated with the blocking of the possible doorway **[803]**.
- 4.7.26 Floor (826) was cut by an internal dividing wall [808 and 806] which was of two phases. Wall [808], which measured 0.25 m wide, comprised of two 'skins' of roughly faced flint nodules laid in a creamy mortar. The similarity of its construction to the main rear elevation, and the fact that it abutted a Greensand block in the rear wall, may indicate that it was the earlier of the two walls.
- 4.7.27 The similarities in the construction of wall **[808**] to the probable 15th and 16th century walls in Trench 7, the presence of the Tudor Green in floor (**826**) and the absence of brick fragments from both walls provide a broad indication that this activity probably dates from the 15/16th-17th century.
- 4.7.28 Wall [806], which was 0.29 m wide, abutted wall [808] to the west and was of compacted chalk construction and built on a foundation (807), 0.38 m wide, of pitched reused roof tiles.

Phase 3

- 4.7.29 A major episode of refurbishment or rebuilding was indicated by the final phase of construction in the area (see **Figure 2**). This phase most closely matches the layout and extent of buildings shown by the Ordnance Survey.
- 4.7.30 This phase of building was marked by the use of bricks in the dividing wall **[812]** and chimney stack **[810, 813]** separating Nos 37 and 39 Salt Lane. These bricks were all unfrogged and of standard 9"x4.5"x2.5" size, although some were thinner, approximately 2" thick, suggesting that earlier Tudor bricks may have been reused from an undocumented phase of work or brought in from elsewhere.
- 4.7.31 The archaeological evidence comprised a brick internal dividing wall [812], 0.47 m wide, of two foundation courses of irregularly laid bricks, bonded in a pale grey mortar. The line of this wall can be projected northwards on the basis of a stub of mortared brickwork [1867]. This provides the first evidence to demonstrate a more northerly building line beyond that of the medieval tenement.



4.7.32 Traces of a square fireplace were represented by a laid brick surround (**810**). The absence of intense *in situ* burning or a chimney breast may indicate that there was a cast iron range or stove. The fireplace was centred on the ridge-line of the present tenements in Salt Lane, which lay to the north of the medieval ridge line, thereby confirming that the buildings had been extended northwards by this time.

5 FINDS

5.1 Introduction

- 5.1.1 The assemblage recovered from the Site ranges in date from medieval to post-medieval, with a few prehistoric artefacts. The assemblage is dominated by ceramics (pottery, ceramic building material and clay tobacco pipes); animal bone is also well represented, but other material types occurred only in small quantities. There are two elements of interest within the assemblage: a group of clay tobacco pipe-making waste and stamped pipes belonging to several documented 19th century Salisbury pipe-makers; and a larger than usual proportion of late medieval (15th/16th century) finds than encountered on most other excavated sites in Salisbury.
- 5.1.2 Finds have been quantified (count and weight) by material type within each context, and totals by material type are given in **Table 1**, including finds recovered from the evaluation of the Site (Wessex Archaeology 2012). For the purposes of this assessment, all finds have been at least visually scanned, in order to record details of their nature and potential date range.

Material	No	Wt
Pottery	703	13,993
Prehistoric	1	7
Medieval	381	5628
Late medieval/early post-med	89	1161
Post-medieval	232	7197
Ceramic Building Material	1715	127406
Roof tile	1695	-
Floor tile	11	-
Brick	8	-
Drainpipe	1	-
Fired Clay	30	495
Clay Pipe	670	3176
Clay tobacco pipes	539	2062
Clay pipe-making waste	131	1114
Stone	11	1731
Worked Flint	25	-
Burnt Flint	25	972
Glass	34	763
Slag	6	2313
Metalwork	44	-
Copper alloy	5	-
Lead	1	-
Iron	38	-
Worked Bone	2	7
Animal Bone	1623	18,135
Marine Shell	220	3199

Table 1. Finds totals by material type



5.2 Pottery

5.2.1 Apart from one prehistoric sherd, the assemblage is entirely of medieval to post-medieval date. Condition of the assemblage is generally fair – there are no complete vessels, or even complete reconstructable profiles, but levels of surface and edge abrasion are low to moderate. Mean sherd weight overall is 19.8g, but this shows a clear distinction when broken down by period, between medieval and late medieval/early post-medieval combined (14.3g), and later post-medieval/modern (31.0g) - the latter group includes thicker-walled, more robust earthenwares.

PERIOD	Ware	NO. sherds	vveight (a)
Prehistoric	Prehistoric flint-tempered ware	1	7
Medieval	Laverstock-type coarseware	287	3555
	Laverstock-type fineware	72	1542
	Minety-type ware	1	11
	Surrey whiteware	2	124
	Coarse Border ware	8	157
	Whiteware (import?)	1	3
	Misc. medieval sandy ware	10	236
	sub-total medieval	381	5628
Late medieval*/early	Tudar Croop	20	101
post-medievai	Creekerten type late med sandy	30	191
	Early Verwood	0	757
	Early Perder were	40	20
	Paeren Stoneware	<u> </u>	3
	Sub-total late med/early post-med	80*	1161*
	Sub-total late med/early post-med	09	1101
Post-medieval	Verwood-type earthenware	76	3597
	Post-medieval redware	4	37
	Post-medieval redware	2	16
	Crockerton-type redware	3	59
	Border ware	1	21
	Tinglazed earthenware	3	26
	German stoneware	7	827
	Modern stoneware	2	43
	English stoneware	1	19
	Creamware	55	1137
	Pearlware	16	195
	Refined whiteware	56	707
	Yellow ware	6	513
	Sub-total post-medieval	232	7197
	OVERALL TOTAL	703	13,993

Table 2. Pottery totals by ware type

* the quantities of Laverstock-type wares belonging to this period are at this stage unknown



5.2.2 The whole assemblage has been quantified (sherd count and weight) by ware type. Most of these are known types (e.g. Laverstock-type coarseware), but a small number of medieval sandy wares have not at this stage been attributed to known source/type. Totals by ware type are given in **Table 2**.

Prehistoric

5.2.3 A single sherd of prehistoric pottery was recovered (pit **720**), a small body sherd in a coarse flint-tempered fabric. The sherd is not diagnostic, but can be dated on fabric grounds to the Late Bronze Age.

Medieval

- 5.2.4 As might be expected, the medieval assemblage is dominated by local products: coarsewares and (in smaller quantities) finewares comparable to the products of the 13th to early 14th century kilns at Laverstock just outside the city (Musty *et al.* 1969; Musty *et al.* 2001). These wares are ubiquitous in the city from its early 13th century foundation onwards. The coarsewares, as seen here, were used primarily for jars, some handled, and mostly with short, everted, squared rims; there is a smaller proportion of dishes (many of the latter may also have been handled, for use as skillets). There are also some examples of coarseware jugs, some with red slip-painted decoration. Less common forms are limited to a single possible curfew (terrace feature **328**). The finewares represent glazed jugs, sometimes slip-decorated, although the range seen here, as elsewhere in the city, is predominantly plain, or with simple decoration.
- 5.2.5 The Laverstock production centre clearly had an almost total monopoly of the local market, but occasional non-local products found their way into the city; in this instance one sherd of limestone-tempered Minety-type ware from north Wiltshire was identified, and ten sherds of miscellaneous sandy wares (nine from a single vessel) do not match the local products and potentially derive from several regional sources, including Southampton and Bristol; one fine whiteware could even be a French import (terrace feature **328**).
- 5.2.6 The ceramic sequence beyond the early/mid 14th century in Salisbury is still poorly understood. While later products have not been identified within the output of the Laverstock kilns, it is clear that similar wares continued to be supplied from some local source, but previously excavated assemblages from the city have not permitted the firm identification of 14th or early 15th century ceramic groups, either through non-recognition, or due to a real absence. In this instance, however, a small quantity (ten sherds) of Surrey whitewares (Coarse Border ware) can be dated to that 'missing period', dating after *c*. 1350, and suggest that Laverstock-type wares almost unchanged from their earlier medieval appearance were still in use at this time. A bunghole in Laverstock-type fineware, however, is the only 'new' vessel form. Only a few contexts can be assigned to this period (pit **111**, pit **414**, layer **811**, construction cut **1860**), and none produced more than a few sherds.

Late medieval/early post-medieval

5.2.7 Ceramic groups from the late 15th and 16th centuries are similarly scarce within the city, but have been identified on a few sites by the presence of 'Tudor Green' vessels, and often accompanied by a ware type that has affinities both to the medieval Laverstock-type coarsewares and also to the post-medieval Verwood-type earthenwares of east Dorset. This 'transitional' ware, which is generally, but not exclusively, unglazed, has been defined as 'early Verwood', although its precise source is unknown. It is seen here in jug and jar forms and, as elsewhere, was found with sherds of 'Tudor Green'. Also belonging to this period is a single sherd of German (Raeren) stoneware (ditch **621**), and a few sherds of a



fine, micaceous sandy ware which has been identified as deriving from the Warminster area, probably from the documented Crockerton production centre; vessel forms include a bunghole vessel from pit **414**, and a thumbed jug base from layer **418**.

5.2.8 Of most interest in this group, however, is a sherd from a puzzle jug (layer **418**). This comprises a hollow rim, with a cut out below, and with a tall, narrow, vertical spout extending upwards from the rim. The vessel is in a fine, whitefiring fabric and has a mottled apple green glaze; it has been identified as Early Border ware (Pearce 2007, 21), and has a probable 16th century date, although puzzle jugs have not so far been recognised amongst the Border Ware repertoire (J. Pearce pers. comm.).

Post-medieval

- 5.2.9 The local pottery industry continued to dominate the Salisbury market in the post-medieval period, 'early Verwood' giving way to the well known products of the east Dorset kilns, the earliest known of which were operating from the mid 17th century (Draper with Copland-Griffiths 2002). Other coarsewares are present in smaller quantities, including later Crockerton-type wares, and white-firing Border ware. These coarsewares are not generally closely datable, but are dated where possible by association with more chronologically distinctive finewares. In this instance those finewares are largely absent: there are no examples here of the Staffordshire-/Bristol-type mottled wares and marbled slipwares, or the German stonewares, of the 17th and early 18th century, and there are only three sherds of tinglazed earthenware. This could mean that there is something of a hiatus in the ceramic sequence in this period.
- 5.2.10 The largest post-medieval group dates later than this, from the mid 18th to mid-19th century. It came from Trench 6 (pit **632**), and included, alongside Verwood-type jugs and bowls, a monochrome tinglazed drug jar, creamware, pearlware and whiteware tablewares (plates, bowls and tea wares), yellow ware kitchen wares (bowls and a chamber pot), and most of a German seltzer bottle; the group has a probable date range from mid 18th to mid 19th century.

5.3 Ceramic building material (CBM)

- 5.3.1 The CBM assemblage replicates every other such assemblage previously excavated in the city, in its preponderance of medieval roof tile. These tiles are typically made in poorly-wedged, pale-firing clays with prominent iron oxides occurring as red/brown pellets. They are irregularly handmade, with paired peg holes (generally round but occasionally square), and with the lower third of the upper surface glazed (the portion that would be visible after the tiles were overlapped on the roof). As well as being used on the roof, these tiles were also used in the constriction of pitched tile hearths, examples of which were excavated in Trench 7. No complete roof tiles were recovered from the Site, but complete widths range from 160mm to 180mm. These tiles were almost certainly made locally; one source is documented at Alderbury from the mid 14th to the late 15th century (Hare 1991), but either this or some other local source must have been supplying the city from its foundation, as roof tile fragments appear from the earliest levels.
- 5.3.2 A few tiles are in finer, more carefully prepared fabrics, firing to a uniform orange-red colour, and may date from the late medieval or early post-medieval period.
- 5.3.3 Also seen here, although only represented by a few fragments, are medieval ridge tiles; these are always at least partly glazed, and generally have an applied crest. They were manufactured alongside pottery vessels at the Laverstock production centre (Musty *et al.* 1969, 140).



- 5.3.4 There are a few fragments of floor tiles, all plain and unglazed, although one fragment from pit **343**, worn smooth on the upper surface, has glaze splashes on the sides and may originally have been glazed.
- 5.3.5 Two complete bricks were retained as a sample from wall 812; these are both crudely made in a coarse, poorly-wedged fabric; the surfaces are not well finished. One brick has been overfired, leading to vitrification of the surfaces. Both bricks measure 230 x 105 x 50mm, a size that would be consistent with a 16th or early 17th century date (Drury 2009, 140, TB2/3).

5.4 Fired clay

5.4.1 Thirty ceramic fragments from 770 are heavily burnt and have a powdery feel. A few fragments preserve flat surfaces, but diagnostic features are otherwise absent. An origin as hearth or furnace lining is possible (this group was not associated with the clay pipe-making waste in Trench 5).

5.5 Clay tobacco pipes

- 5.5.1 Salisbury is well documented as a clay pipe-making centre from the late 17th century through to the late 19th century, and the practice of many of the individual pipe-makers of stamping their products (variously on stems, spurs and bowls) facilitates the dating of fragments. One bowl from layer **701** carries a debased 'gauntlet' mark, otherwise known as a 'monkey's paw' (*c*. 1670-80; Atkinson 1970, fig. 1, 12), and a stem fragment from Trench 3 bears the stamp of Thomas Hill of Fisherton Anger (*c*. 1700-10; Atkinson 1970, 186, appendix D), but the main interest in this assemblage lies in the group of pipes recovered from Trench 5 (in brick-lined pit **508**), which also includes pipe-making waste: pipe wasters, stem fragments, presumably kiln furniture. Amongst this group are the pipes of three makers: John Morgan I (1794-1847), formerly of Marlborough; William John Morgan II, who worked in Salt Lane (1824-59); and James Skeaimes, formerly of Southampton, who became W.J. Morgan's partner in Salt Lane and carried on his business until at least 1867 (Atkinson 1970, 183, 188-9), one of the last Salisbury pipemakers.
- 5.5.2 John Morgan I's initials appear on the spurs of five pipes; all the pipe bowls are plain. W.J. Morgan also stamped spurs (17 examples) and, although less frequently, bowls (four examples); there is also one example here of a stem stamped W. J. MORGAN / SALISBURY. W.J. Morgan II produced both plain and decorated bowls, the latter carrying simple leaf or wheat-ear motifs up the bowl seams, back and front.
- 5.5.3 James Skeaimes was a pipemaker from Southampton who moved to Salisbury some time between 1839 and 1858; he appears in trade directories from 1858-67. He was reputed to live next door to William John Morgan in Salt Lane, and carried on Morgan's business after his death, until at least 1867. There are five examples here of Skeaimes' pipes, two with the initials JS on the spur, and three with stems stamped with the relief mark J. SKEAIMES / SALISBURY.
- 5.5.4 Three more elaborate pipes from pit **508** could have been made by any of these three makers: they are of typical 19th century elaborately decorated form and carry the arms of the Oddfellows' Society on the bowl (a hand with a heart superimposed), and the spurs are modelled as scrolls. None carry a maker's mark, but this could have been stamped on the stem.



5.5.5 One other maker is represented here, by a single spur stamped with the initials EH. This may be Edward Higgens, working *c*. 1690-1710 in Salisbury, although his mark has so far been recorded only on stems (Atkinson 1970, 186, appendix D).

5.6 Stone

5.6.1 This category includes one object (a whetstone perforated at one end, pit **107**), and building material. The latter includes six fragments of roofing slate, and two fragments from limestone roofing slabs. Three other fragments of limestone are also slab-like but thicker (30-40mm), and are more likely to represent floor tiles. None of the building material is closely datable.

5.7 Worked and burnt flint

- 5.7.1 A low level background scatter of prehistoric worked flint has been recorded on sites across the city, and this is no exception. Twenty-five pieces were recovered, all waste flakes. Most are edge-damaged and/or slightly rolled, consistent with reworking and redeposition, with the exception of the nine flakes from construction cut **1807**, which are in mint condition, but may relate to medieval or later walling rather than prehistoric activity. Six flakes from pit **720** were associated with a small sherd of Late Bronze Age pottery (see above).
- 5.7.2 Burnt, unworked flint was found in similar quantities (25 pieces). This material type is intrinsically undatable, but is often taken as an indicator of prehistoric activity.

5.8 Glass

- 5.8.1 The glass includes both vessel and window glass, and also one object (spherical bead). The vessel glass includes seven fragments from green wine bottles of the late 17th or 18th centuries. All other vessel glass dates to the 19th century or later, and includes two fragments from cylindrical wine bottles, two small bottles in pale blue glass, the pointed 'kick' from a phial base and a phial neck, both in clear glass, four bottles/jars in clear glass, a possible sweetmeat glass, and a wine glass foot.
- 5.8.2 The window glass is all of post-medieval date, in clear, pale blue and pale greenish glass.

5.9 Slag

5.9.1 A small amount of slag was recovered (*c*. 2.3kg), deriving from five contexts, both medieval and post-medieval. One of these contexts (in brick-lined pit **508**) produced just under 900g of slag, associated with clay pipe making waste (see above). In the other contexts the slag probably represents iron-smithing, though not on a scale to suggest on-site metalworking.

5.10 Metalwork

5.10.1 The metalwork includes objects of copper alloy and iron. The seven copper alloy objects include a penny (brick-lined pit **508**), a small oval buckle complete with buckle plate (unstratified), a buckle pin (modern layer **801**) and a second, smaller pin either from a buckle or from an annular brooch (stakehole **1870**), a lace end and a very small washer (both from layer **774**). The penny dates to the 19th century but is illegible; all other objects are post-medieval.



- 5.10.2 The most interesting copper alloy object, however, is a medieval seal matrix recovered from terrace feature **328**, probably of late 13th or 14th century date. This is circular, with a hexagonal conical handle ending in a trefoil loop; the legend appears to read P.DEBRE[U?]PERROC, around a heraldic shield.
- 5.10.3 The iron objects consist largely of nails (30 examples in varying sizes). There is a possible tool (layer **701**), and a possible hinge (floor **858**); other objects are unidentifiable.

5.11 Animal bone

- 5.11.1 The assemblage comprises 1465 fragments (or *c*. 9kg) of animal bone. Most (94%) of this material was recovered by hand during the normal course of excavation, the rest was retrieved from the sieved residues from four bulk soil samples. Once conjoins are taken into account the total falls to 907 fragments. The assemblage includes material of medieval, post-medieval and modern date (**Table 3**).
- 5.11.2 During the processing of bulk soil samples for the recovery of charred plant remains and charcoals, small animal bones were noted, and recorded (see **Appendix 1**; not included in **Table 3**), in the flots. These included those of small mammals and fish. The fish remains included vertebrae, otic bulla and scales.

Species	medieval	post-medieval	modern	undated	Total
cattle	78	28	11	12	129
sheep/goat	117	73	50	15	255
pig	28	10	7	3	48
horse	9	1			10
dog				4	4
cat	2	2	19		23
fallow deer	3	1	1		5
rabbit	9	2	12		23
domestic fowl	28	12	6	3	49
goose	3	5	1		9
duck	3				3
crow	1	1	1		3
cod	1		1		2
whiting		2			2
Gadid sp.	9	7	8		24
Total identified	291	144	117	37	589
Total					
unidentifiable	515	159	157	45	876
Overall total	806	303	274	82	1465

Table 3. Animal bone: num	per of identified	specimens	present (c	or NISP) by	broad
chronological period					

Methods

5.11.3 The assemblage was rapidly scanned and the following information recorded where applicable: species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS



Access) and cross-referenced with relevant contextual information. A summary is presented in **Table 4**.

Information type	Ν	
Butchery	54	
Biometric	18	
Age - fusion	269	
Age - 2+ teeth	10	

Table 4. Animal bone: Quantity and type of detailed information

Preservation condition

- 5.11.4 Bone preservation is on the whole very good. Fragments show little or no sign of physical weathering, indeed cortical surfaces are intact and surface details such as fine knife cuts are clear and easily observed. Poorly preserved fragments of bone were recovered from medieval layer **811**. It is assumed that these fragments have been reworked and redeposited from earlier contexts.
- 5.11.5 Gnaw marks were noted on *c*. 3% of post-cranial bones. This is an extremely low incidence and suggests that scavenging dogs did not have open access to bone waste. It is also possible that the site was kept relatively clean and tidy, and any surface detritus was removed or buried rather than left to accumulate in the back yards of properties.

Medieval

- 5.11.6 Bone was recovered from 58 separate contexts of medieval date, including ditches, pits, and layers, most of which are dated to the 13th/14th century. Approximately 36% of fragments are identifiable to species and skeletal element. The assemblage is dominated by bones from livestock species especially sheep/goat (40% NISP see **Table 3**). Cattle bones account for a further 27% NISP, and pig bones just under 10%. Other identified species include horse, cat, fallow deer, rabbit, domestic fowl, goose, duck, crow and cod.
- 5.11.7 A relatively large group of bones was recovered from 15th/16th century layer **418**. The group includes 31 sheep/goat bones including the foot bones (e.g. metapodials) from four separate animals, and the skull from a naturally polled (i.e. hornless) animal. The skull had been split in half down the sagittal suture, presumably to access the brain. The consumption of offal, in this case brain tissue, was more common in the past than it is now. The other sheep/goat bones from this group are all good quality meat cuts from the fore- and hindquarters.
- 5.11.8 Layer **418** also included 18 cattle bones, and smaller numbers of pig, rabbit, domestic fowl and goose bones. Several of the cattle vertebrae, and a few of the sheep/goat vertebrae, had been split down the mid-line of the vertebral body (i.e. dorso-ventrally), a technique that divides the carcass into sides and one that is fairly typical of the period.
- 5.11.9 Other relatively large groups of material were noted from 13th/14th century pit **611** and construction cut **1807**. Both features include bones from sheep/goat, cattle, pig, rabbit and domestic fowl. Cut marks were noted on a cattle hyoid bone from **611**. This evidence indicates that livestock were dispatched by having their throat cut.
- 5.11.10 The medieval assemblage also includes several bones from calves and piglets. The former is evidence that veal was readily available in Salisbury's meat markets, due in part



no doubt to a burgeoning dairy industry at the time. The piglet bones on the other hand are evidence that pigs were being bred and reared in backyard areas within the city, a fairly common practice in most urban areas during the medieval period (Albarella 2006).

5.11.11 The fallow deer remains include a metacarpal, mandible and tibia. The first two skeletal elements might reasonably have been brought into the town attached to a deer hide but the tibia is evidence that venison was occasionally available, either through illicit means (i.e. poached/black market) or direct involvement by a resident of the Vanner's Chequer in the elite sport of hunting (Sykes 2007).

Post-medieval

- 5.11.12 Animal bone was recovered from 17 separate contexts, including pits, ditches, layers and robber trenches, all of which are post-medieval (i.e. 17th/18th century) in date. Forty-eight percent of fragments are identifiable to species and skeletal element, and sheep/goat are common, accounting for a little over half of all identified fragments. Cattle bones account for a further 19% NISP, and pig a further 7%. Overall species proportions are therefore very similar to the medieval assemblage. Other identified species include horse, cat, fallow deer, rabbit, domestic fowl, goose, crow, whiting and possibly cod (or similar sized fish from the *Gadiformes* order).
- 5.11.13 Relatively large groups of identified bones were recovered from ditch **328**, pit **316** and structure **420**. Both cut features include waste elements from primary butchery such as mandibles and foot bones, and meat cuts from the trunk, fore- and hind-quarters of sheep/goat and cattle carcasses.
- 5.11.14 It is worth noting that most of the bird and fish bones are from pits **316** and **613**, and structure **420**. These elements of the assemblage are characteristic of the type of waste that is generated in a domestic environment, and their presence in some types of context but not others provides some insight into the disposal of refuse on the site (Driver 2004).

Modern

- 5.11.15 Bone was recovered from four modern pits (**424**, **508**, **632** and **726**). Approximately 43% of this material can be identified to species and element, and the identified bones mostly belong to sheep/goat (43% NISP). Other identified species include cattle, pig, cat, fallow deer, rabbit, domestic fowl, goose, crow, and cod.
- 5.11.16 A relatively large group of bones was recovered from pit **424**. Most of the identified bones from this feature belong to sheep/goat, and include the foot bones from at least six different animals. Concentrations of these types of element are generally considered to represent waste from either light tanning or leather-dressing. The rest of the assemblage from this feature is characteristic of domestic refuse since it includes a number of good quality meat cuts, as well as rabbit, poultry and fish bones.
- 5.11.17 A bone button (19.4mm in diameter) was recovered from pit **632**.

Undated

5.11.18 A small quantity of bone was recovered from a number of undated features and deposits. Identified bones include sheep/goat, cattle, pig, dog and domestic fowl. The dog bones are all from quarry pit **735**, and comprise a complete tibia, and fragments of ulna, radius and fibula, all from the same individual.



5.12 Marine shell

5.12.1 Apart from one mussel, one cockle and three whelks, all of the marine shell comprises oyster. Both right and left valves are represented, i.e. both preparation and consumption waste, but condition is generally poor, shells often soft and laminating, and few preserve original measurable dimensions.

6 ENVIRONMENTAL EVIDENCE

6.1 Introduction

6.1.1 A total of 10 bulk samples were taken from a range of features of medieval and postmedieval date from five trenches. The samples were processed for the recovery and assessment of charred plant remains, wood charcoal and other environmental remains.

6.2 Charred plant remains

- 6.2.1 The bulk samples were processed by standard flotation methods; the flots retained on a 0.5 mm mesh, residues fractionated into 5.6 mm, 2 mm and 1 mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. The flots were scanned under a x10 x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded in **Appendix 1**. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals.
- 6.2.2 The flots were generally large with low numbers of roots and modern seeds. Charred material comprised varying degrees of preservation.
- 6.2.3 High numbers of cereal remains were recovered from five features in Trenches 3, 4 and 8, in particular from pit 347. The majority of the grains appeared to be those of free-threshing wheat (Triticum turgidum/aestivum type). There were also a number of grains of barley (Hordeum vulgare). There were a few coleoptiles, indicators of germinated grains, in the assemblage from pit 315.
- 6.2.4 Charred weed seeds and other charred remains were recorded in low to moderate numbers in the samples from Trenches 3, 4 and 8. These included fragments of hazelnut (Corylus avellana) shell and seeds of oat/brome grass (Avena/Bromus sp.), vetch/wild pea (Vicia/Lathyrus sp.), celtic pea (Vicia faba), hemp-nettle (Galaeopsis sp.), dock (Rumex sp.), clover/medick (Trifolium/Medicago sp.) and bedstraw (Galium sp.).
- 6.2.5 These assemblages are compatible with the medieval and post-medieval date of the feature and are typical of domestic settlement waste. The weed seeds are those which can be found in grassland, field margins and arable environments. There are similarities between these assemblages and assemblages from other sites in Salisbury of this date such as Anchor Brewery (Hinton 2005), and Ivy Street and Brown Street (Hinton 2000). There appears to have been a wider range of species recovered from these other sites.

6.3 Wood charcoal

6.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in Appendix
 1. Large quantities of charcoal fragments greater than 4 mm were retrieved from features in Trenches 3 and 4. This included both round wood and mature wood fragments. Lots of



vitrified charcoal and clinker type material was observed in the sample from pit 508, possibly associated with the manufacturing of clay tobacco pipes.

6.4 Mineralised remains

6.4.1 Mineralised remains were observed in the samples from Trenches 3, 4 and 8. These included mineralised seeds, fruit stones, hazelnuts, rolled bran, insects and bone fragments. There were also small mineralised textile fragments recovered from pit 420.

7 SITE DISCUSSION

Introduction

- 7.1.1 The excavation in the Vanner's Chequer has provided a unique opportunity to examine a transect across a medieval Salisbury chequer. The results have shown that it was not developed as a single event and that some areas remained undeveloped for many years after the foundation of the city. This has made it possible to consider how much of the layout may have changed since its original survey in the 13th century (the new development has created new homes across the central part of the chequer effectively changing the original tenement pattern for ever). Furthermore the data can be used to compare and contrast both the archaeological and the documentary development of this peripheral chequer with others in the city centre.
- 7.1.2 The archaeological story has also provided evidence of the people who lived in the chequer which can be correlated with documentary sources.
- 7.1.3 The excavation produced evidence of prehistoric activity on this edge of the River Avon floodplain, a feature that hitherto has been an under-represented aspect within this part of the city. A thin scatter of worked flints, including a sherd of flint-tempered pottery of later prehistoric date that was found with additional worked flints in medieval pit 720, were all probably of Late Bronze Age date.

Layout

- 7.1.4 The street plan of Salisbury was laid out on a systematic grid, most of which comprised rectangular chequers, which were predominantly aligned N-S through the city. Each block contained a number of individual tenements that measured up to 35 x 15 metres (Chandler 1983) that, in theory, were arranged back-to-back along both sides. Chandler calculated that the Vanner's Chequer, which is approximately square, would have accommodated twelve standard tenements. However, in practice, individual tenements were of varying size and alignment, and were developed and subdivided (R.C.H.M. 1980) according to demand, location and wealth.
- 7.1.5 This pattern is evident in the Black Horse Chequer, where development was concentrated on the western and southern sides facing the Market and Milford Street. In the Trinity Chequer, in contrast, the tenement lay-out was more consistent, as can be recognised within the current mapping.
- 7.1.6 No excavation was possible on the St Edmund's Church Street (Pennyfarthing Street) frontage to the west; nevertheless, it is reasonable to assume that this street was one of the first parts of the chequer to be developed. The results of the excavation suggest that the Bedwin Street frontage, facing St Edmund's Church, was also probably developed some time in the 13th-14th centuries. In addition, the work has demonstrated that the western end of Salt Lane was developed in this period. However, tenements at the east



end of Salt Lane were not developed until the 15th-16th centuries. The boundaries of these tenements can be identified on the most recent editions of the Ordnance Survey.

- 7.1.7 The rear of the tenements is more problematic. The line of original the tenement layout may be preserved by the rear boundary line of tenements on St Edmund's Church Street. This forms a continuous band which extends for approximately 30 m back from the street frontage. It can be traced at a similar distance from the street frontage in tenements along Salt Lane.
- 7.1.8 In this suggested sequence the central part of the chequer remained undeveloped, along with tenements on Greencroft Street and the east end of Salt Lane, until the large house was built at the north end of the chequer in the 15th-16th century. Whether this open area formed an original feature of the medieval survey, or a subsequent development, is difficult to confirm.
- 7.1.9 The archaeological evidence for tenement boundaries in the central part of the Vanner's Chequer suggests that the chequer development was based on an E-W axis. Tenement boundaries extend from this to the north and south across the chequer towards Bedwin Street in the north and Salt Lane to the south. Whether this was an original feature of the chequer survey or a subsequent development is difficult to confirm.
- 7.1.10 The earliest tenement boundaries for which there is archaeological evidence appear to have been marked initially by shallow slots. These boundaries were replaced by walls constructed on thin beds of mortar. It is difficult to establish an absolute chronology for this; however, some hint may be derived from the fact that this sequence was recorded by the excavation on tenements fronting onto Salt Lane that apparently remained undeveloped until the 15th-16th century.
- 7.1.11 The line of one of these tenement boundaries could be projected through the chequer to a Bedwin Street tenement where it was associated with a chalk wall foundation, which lay on the north side of the excavation. This wall marked the present land boundary of No.54 Bedwin Street, coincidental with the extent of land ownership shown by Naish in 1716, arguably the first reliable mapping of the city.
- 7.1.12 However, Naish shows the Vanner's Chequer as having a large open area in the centre, with a relatively uncluttered layout of tenements elsewhere, and no development on the east side, facing the Greencroft. In contrast, chequers nearer the centre of the city had undergone considerable urban infilling; the outlying chequers remaining largely unmodified.
- 7.1.13 The impermanence and/or flexibility of the pattern of tenement boundaries within the Vanner's Chequer in particular, is reinforced with increasing degrees of accuracy by the mapping. Speed's map of 1611 is somewhat stylised and of questionable reliability, however Naish's survey of 1716 and subsequent depictions can be viewed with more confidence.
- 7.1.14 The Ordnance Survey mapping of 1879 shows the axial wall clearly dividing the northern tenements from those to the south. This is probably the excavated later brick construction with the associated yard surface. A series of buildings/outbuildings were built against the south side of the wall, although they had been demolished by 1900. Their function is unclear as is the direction from which they were accessed.
- 7.1.15 The lay-out of tenements extending north from Salt Lane to the mid-line of the chequer is also apparent for Nos 45 and 47 Salt Lane from the 1879 Ordnance Survey edition



onwards. The symmetry of the tenement boundaries covered by Nos 37- 43 Salt Lane to the west is fluid, with divisions added or removed according to need. The back lands appear as a series of irregular yards, of the type mentioned in the 1911 sale catalogue for No. 43 Salt Lane, with ever-changing boundaries on successive surveys. Nevertheless, elements of the 1716 survey boundaries still remain visible within this later pattern.

7.1.16 The pattern and size of tenement boundaries mapped for the Bedwin Street frontage remains largely unchanged throughout.

Structural development

- 7.1.17 Placing buildings within this pattern of tenements is made possible by the results of excavation on Salt Lane. The discovery of complex stratigraphy at the west end of the Site suggested an unbroken sequence of occupation from the 13th-14th century. The earliest phase of activity was marked by a number of pits, post- and stake holes that were cut into the brick-earth, though the activity thinned to the east.
- 7.1.18 It is possible that these pits, post holes and stake holes represent activity that immediately preceded construction of the principal buildings and may therefore have lay within existing tenement boundaries. At any event the features appear to have been dug within a band along the street frontage, pit density thinning both to the (as yet undeveloped) east and across the central part of the chequer.
- 7.1.19 The distribution of these features probably reflects the extent of development and of settlement throughout much of the earlier medieval period on Salt Lane. The building arrangement at the junction of Salt Lane and St. Edmund's Church Street is unknown. Naish's survey suggests that in some instances properties were 'wrapped' around the street corner, benefitting from access to two street frontages. Elsewhere buildings stopped short of the corner and started afresh along the adjacent street.

 $13^{\text{th}} - 14^{\text{th}}$ century

- 7.1.20 Construction of buildings with stone foundations began in the 13th-14th century. This was represented by a stepped chalk foundation, marking the rear of a building on Salt Lane, of over 10m in length, possibly reflecting the width of the medieval tenement.
- 7.1.21 The early medieval building lay parallel to the street frontage and was sub-divided subsequently. Regrettably, the construction of a modern engineering works deprived the excavation of a chance to establish what lay behind the building. Properties to the east contrasted with this by being aligned end-on to the street frontage, and included ranges of buildings to the rear, probably enclosing around a yard with a well.
- 7.1.22 Chalk formed a readily available, easily worked material and appears to have been used in all forms of construction. The 13th-14th century walls at Salt Lane used chalk extensively in their construction, and the chalk-lined shaft at the north end of the tenement was entirely composed of chalk ashlar. However, Hawkes (n.d) noted that although chalk was used elsewhere in Salisbury it was more common to find walls made of flint and Greensand, materials that also featured in the wall foundations on Salt Lane.
- 7.1.23 The substantial nature of the foundation suggests that the excavated building on Salt Lane was of considerable size and status, possibly the residence of a well-to-do owner living on the periphery of the city, despite it not being connected to any of the principal access routes or suburbs.

- 7.1.24 Within the building a series of superimposed floor levels and make-up layers extended over an area 7 m long and approximately 2.5 m wide. No internal divisions or hearths were observed in this first phase construction, nor was there any evidence for a range to the north. This may indicate that the building was a hall-type structure aligned parallel to Salt Lane, and it is likely that the land to rear was occupied by yard areas.
- 7.1.25 This layout is comparable to an example near the junction of 36 Milford Street and 34 Gigant Street (Currie and Rushton 2005) where a substantial range, approximately 4 m wide and at least 5 m long, of stone, or with stone foundations, was built in the mid 14th century, along the Gigant Street frontage.
- 7.1.26 In many other respects the early medieval building remains recovered at Salt Lane are typical of others in Salisbury, including superimposed floors with make-up layers that contain a small but consistent assemblage of pottery.
- 7.1.27 The chalk-lined shaft at the north end of the Salt Lane tenement remains enigmatic; nothing of its type or size appears to have been found previously in excavations within the city. Its function remains unresolved as does its date of construction. The quality of construction and extensive use of chalk finds similarities with the construction methods employed on the early medieval building on the Salt Lane frontage, with which it may be linked.
- 7.1.28 The positioning of the shaft also showed an undoubted relationship to the E-W axial boundary of the Vanner's Chequer, which ultimately marked the most influential boundary in the layout of the chequer. If this boundary provided the initial division of the chequer it is possible that the shaft was also of 13th-14th century construction; at any event the south wall was cut by a rubbish pit containing 14th-15th century pottery. This part of the site contained a concentration of later medieval pottery that may be linked to what appears to be a large house that is shown on early mapping (eg Naish 1716) in the central northern part of the chequer. It is remotely possible that the chalk-lined shaft was in some way related to this building, rather than a building on Salt Lane.
- 7.1.29 Rawlings (2000) describes 15th-16th century chalk-lined pits, which were somewhat smaller than those from the Vanner's Chequer, from excavations at Ivy Street and Brown Street. Environmental analysis indicated that they functioned as cess pits. The size and quality of construction of shaft 420 from the recent excavation may make this use seem a less likely possibility, but the mineralised remains from the fill are consistent with it having been a cess pit.
- 7.1.30 The land at the east end of Salt Lane remained undeveloped in the 13th–14th centuries, but was instead utilised for clay extraction.

<u>15th – 16th century</u>

- 7.1.31 The medieval building on Salt Lane was apparently rebuilt or extensively renovated sometime later in its life. This may have included refurbishment of the foundations and the blocking of a doorway. This is likely to have taken place sometime in or after the 15th-16th century; a sherd of Tudor Green pottery was sealed within a floor that predated this redevelopment.
- 7.1.32 Timber-framed construction was employed on 'dwarf' wall foundations of flint and mortar, with sparse use of chalk. Flint foundations of similar, ephemeral construction defined buildings of 15th or 16th century construction elsewhere in the city (RCHM 1980), and



Hawkes (nd) notes that such later foundations rarely penetrated the underlying deposits to any great degree.

- 7.1.33 The construction of the walls on Salt Lane appears to follow the standard pattern; flint nodules with irregularly spaced Greensand blocks, which may indicate the locations of internal dividing walls. Butt joints also featured more frequently than bonded joints. A shallow flint foundation and a butt joint are features of the internal cross-wall in the building on Salt Lane, which probably belongs to this phase, rather than having been a feature of the original lay-out.
- 7.1.34 The cross-wall overlay earlier floors and provided the first tangible evidence for internal divisions within the building. This wall may also indicate sub-division of the original medieval tenement block, perhaps contemporary with the initial phase of development at the east end of Salt Lane.
- 7.1.35 It is speculative whether the late medieval development and redevelopment were contemporary across the Site and how much they may have been related. Chandler (1983, fig. 5) indicates that the population of Salisbury probably rose to somewhere approaching 8,000 people at this time before declining again in the mid 16th century. It is possible that the need to accommodate additional population was addressed by construction work on previously undeveloped land and by subdivision of existing tenements in these outlying areas, the central chequers having already reached total capacity.
- 7.1.36 The late medieval buildings at the east end of Salt Lane reflect more precisely the former disposition of tenements. They also indicate major reorientation of buildings from one with a long axis on the street frontage to one where ranges with tile hearths, ovens and chimneys extended backwards from the street frontage.

$17^{\text{th}} - 19^{\text{th}}$ century

- 7.1.37 It is unclear for how long the buildings at the west end of the Salt Lane frontage retained their medieval foot-print. Subsequent phases of internal reconstruction were evident in the excavation before the introduction of brick. This material was apparently introduced in Salisbury in the 18th-19th century, although the possible (re)use of Tudor brick, in 19th century construction on Salt Lane, cannot be ruled out. The source of such (re)used material remains unknown.
- 7.1.38 The use of brick also coincided with a number of other changes that were detected in the 17th-19th century phases on the Site. Some of these can also be seen in the mapping from this period, principally buildings on Salt Lane with a wider footprint and other extensions to the north. The changes also necessitated realigned ridge lines and included the construction of cellars.
- 7.1.39 There was a greater density of outbuildings from the 17th century onwards, some of which are recorded by the Ordnance Survey. A few of these can also be assigned a function, principally those structures associated with William Morgan's clay tobacco pipe works in Salt Lane.

Pits

7.1.40 The excavation produced a number of rubbish pits that record the development of settlement, as well as providing dating evidence and materials reflecting economic activity, crafts and occupier status.



- 7.1.41 The pattern appears to show that the larger pits, found towards the rear of the tenements, date to the 15th and 16th centuries, while those of the 13th-14th centuries are smaller and found closer to the street frontage. This might provide some explanation as to why 15th-16th century pits are apparently scarce in Salisbury, possibly reflecting the fact that excavation has more frequently occurred on street frontages rather than at the rear.
- 7.1.42 Capacity analysis of the pits, based on date, might confirm whether the smaller pits are early and the larger ones late.

Wells

- 7.1.43 These features provide an important link with buildings but because of their often long period of use provide an imprecise chronological indicator. The two wells in Salt Lane both lay approximately 6 m behind the rear of the house, where they would have been readily accessible. This pattern is repeated elsewhere in Salisbury; at 34 Gigant Street (Currie and Rushton 2005) a post-medieval chalk-lined well was found approximately 6.5 m from the street frontage, and in St Edmund's Church Street (Wessex Archaeology 2013) four wells, also chalk lined, averaged 8 m from the street frontage, although no associated structures were found.
- 7.1.44 The method of construction appears to have been little changed through time. One of the wells at St Edmunds Church Street (Wessex Archaeology 2013) included courses of reused tiles, but was otherwise apparently entirely of chalk. The backfill contained 11th-13th century pottery, including sherds from a single vessel which provides the most reliable date of construction.
- 7.1.45 The two wells at Salt Lane were both cut through the filling of a quarry pit that was probably backfilled by the 15th or 16th century. The earlier well lay immediately to the south of the later well and was sealed by the line of a probable 19th century brick wall that formed the rear elevation of the tenement. The second well, which was equipped with a pump mechanism, may therefore have been dug as a direct response to the rebuilding of the property, replacing the earlier well.

Assessment of results set against issues raised by Hawkes (n.d.)

- 7.1.46 Hawkes (n.d.) provided a comprehensive summary of excavations in Salisbury that were undertaken in the years 1984-1990. Evidence of early medieval activity, as represented by material from features in sub-floor levels in the city, was restricted to material from stake holes and post holes from Brown Street and stake holes and two pits from Culver Street. Pits and a stake hole with medieval pottery from below the floor levels at from Salt Lane have added to this small corpus of material broadly contemporary with the earliest construction work in the city.
- 7.1.47 Hawkes noted that load-bearing walls on street frontage structures often showed evidence of replacement or repair, although the date at which this took place was only poorly supported by datable pottery. In addition, he noted the benefits of combining the results of standing buildings surveys, as undertaken by RCHM (1980), with the results of archaeological excavation.
- 7.1.48 The excavation on Salt Lane has provided additional evidence for replacement/repair of an existing wall on an established wall line. The continuing association of poor chronological indicators, as seen at the west end of the Salt Lane frontage, is similar to those seen elsewhere in the city. However, the opportunity that was provided to examine the foundations of structures at the east end of the street that had previously been surveyed by RCHM allowed just the approach advocated by Hawkes. In this case, the



results of the excavation were compatible with the suggested 15th or 16th century date of construction based on the earlier survey of the standing building.

- 7.1.49 Hawkes summarised the layout of buildings in Salisbury as containing a single room, built on a narrow frontage, with back yards and a well, and subsequent extensions to the rear. In certain respects the contrasting dates of development on the Salt Lane frontage have provided an opportunity to compare and contrast variations in building layout in this part of the city.
- 7.1.50 The story of development on Salt Lane is more comprehensive than that of Bedwin Street, where no street frontage was available for excavation. However, 13th and 14th pottery and apparently contemporary phases of tenement boundaries suggest that this part of Salisbury, opposite St. Edmund's Church, did not remain undeveloped for as long as the land at the east end of Salt Lane. Furthermore, the presence of rubbish pits containing 15th-16th century pottery indicates occupation on the street frontage (RCHM 1980) by this date.

8 STATEMENT OF POTENTIAL

8.1 Stratigraphic sequence

- 8.1.1 A detailed assessment of the stratigraphic sequence has been presented above and is followed, in the discussion, by a comprehensive consideration of the significant aspects of the site, including chronology, layout, structural development and status.
- 8.1.2 The site discussion also includes a review of the results in terms of various issues raised by John Hawkes some 20 years ago in his conclusion to a summary of excavations in Salisbury undertaken 1984-1990 (Hawkes nd).
- 8.1.3 The Extensive Urban Survey of Salisbury (WCAS 2004) highlights the archaeological potential of the city and identifies a number of *lacunae* in the evidence, some where excavations such as that at Bedwin Street can help fill these gaps. Although a considerable number of excavations have taken place in the city, many of the earlier ones remain unpublished, and the Vanner's Chequer itself has not previously been subject to archaeological investigation. The scale and disposition of the excavation trenches at Bedwin Street, extending across the chequer, will enable a relatively comprehensive understanding of the sequence and changing character of the medieval and later settlement here to be established, particularly when combined with the results of the finds, environmental and documentary work.
- 8.1.4 The potential of the Site can also be considered in the wider terms of the research framework for the archaeology of south-west England (Webster 2008), in particular *Research Aim 36: Improve our understanding of medieval and later urbanism.* Within this, it is to the themes of understanding the form, function and specialisation that towns offered, as well as the transition from the medieval to the post-medieval phase, that the results from the Site at Bedwin Street can most usefully contribute.

8.2 Finds

8.2.1 In many ways this assemblage replicates others from sites previously excavated across the city. It does, however, exhibit several points of interest. One of these is the higher than usual proportion of later medieval and early post-medieval pottery (mid/late 14th century to 16th century). This group usefully augments the known ceramic sequence from the city,



confirming the survival of Laverstock-type wares into the late medieval period, and the arrival of small quantities of Surrey whitewares from the mid 14th century. The pottery also suggests a possible hiatus of activity (or at least refuse disposal) on the Site in the 17th to mid 18th century, a pattern which is supported by the clay tobacco pipes, amongst which the pipes of 17th and 18th century makers are almost completely absent.

- 8.2.2 The clay tobacco pipes provide another point of interest, in the presence of pipe-making waste, including marked pipes of makers known to have worked in Salt Lane in the middle of the 19th century (William John Morgan II, and James Skeaimes). This group certainly warrants further analysis and publication, to supplement the small amount of information so far recorded for these makers.
- 8.2.3 Although the faunal assemblage is relatively modest in size it does include some interesting medieval and post-medieval groups. There is evidence for butchery and also some industrial use (light tanning or leather-dressing). The presence of fallow deer in the medieval assemblage could indicate either poaching or legitimate hunting.

8.3 Environmental Evidence

- 8.3.1 The analysis of the charred plant assemblages has the potential to provide some information on the nature of the settlement, the surrounding environment and local agricultural practices during the medieval period. The results of this analysis could provide a comparison with the data from other sites in the local area, such as Anchor Brewery (Hinton 2005), and Ivy Street and Brown Street (Hinton 2000).
- 8.3.2 The analysis of the wood charcoal would provide information on the species composition and the management of the local woodland resource. It may also be possible to ascertain if there was any species selection for specific functions, such as within the assemblage from pit 508. This information would augment the wood charcoal analysis from previous work on sites in the area.
- 8.3.3 The analysis of the mineralised plant remains has the potential to augment information on the diet and local conditions obtained from the charred plant remains, as was the case at the Anchor Brewery site (Hinton 2005) and at Ivy Street and Brown Street (Hinton 2000).

9 METHOD STATEMENT

9.1 Stratigraphic sequence

- 9.1.1 Once the initial post-excavation analysis is completed, revisions will be made as required to the phasing. However, it is anticipated that there will be very little change to what is presented in this assessment.
- 9.1.2 The publication text will be written, largely drawing on the detailed information which is presented here, but describing the site sequence by chronological phase rather than by area. This text will include the key results of the proposed specialist work, which will be integrated within the overall chronological framework. Illustrations will be prepared to accompany the report.
- 9.1.3 The archaeology in the vicinity of the Site, in particular, will be reviewed through reference to published reports and available grey literature, with additional information drawn from documentary sources. This will contribute towards an enhanced discussion of the Site and its broader setting within the medieval and later city of Salisbury.



9.2 Finds

Pottery

9.2.1 The medieval and post-medieval pottery has already been quantified by fabric type, using the type series developed for Salisbury (e.g. Mepham 2000), but full details of vessel forms, surface treatments and decoration have not been recorded. Existing records will therefore be enhanced using the standard Wessex Archaeology recording system for pottery (Morris 1994), which accords with nationally recommended minimum standards (MPRG 2001). Medieval vessel forms will be recorded using the Salisbury type series, which follows recommended nomenclature (MPRG 1998); other published corpora will be used for post-medieval vessel forms (e.g. Copland Griffiths 1989 for Verwood-type earthenwares). The results of the analysis will be presented in terms of the range of types present (this can be largely tabulated), with a discussion of the ways in which this assemblage augments the known ceramic sequence for Salisbury, and the chronological implications for the Site. Vessel forms largely replicate the known types series, but the Early Border ware puzzle jug will be illustrated, and a maximum of six other vessels to illustrate late medieval/early post-medieval groups.

Clay pipes

9.2.2 The clay pipes have already been quantified by part (stems, bowls, mouthpieces), and the numbers and types of stamps recorded. A limited amount of additional research is proposed, to search for parallels for the Oddfellows pipes, and the EH spur stamp, and to ensure that all available information on the Morgan pipe-making family is collated. Some minor enhancement of the records may be made as a result of this additional research. The 19th century pipe-making waste, and the products of the three known makers, will be described and discussed, drawing on known parallels and evidence from trade directories to present a brief commentary on Salisbury pipe-making in the mid-19th century. A selection of pipes will be illustrated: one Oddfellows pipe, two other decorated bowls, plus examples of the variants of the spur, stem and bowl stamps; and a selection of the pipe wasters and pipe-making waste will be photographed.

Copper alloy seal matrix

9.2.3 Further research on the seal matrix will be undertaken, including consultation of appropriate specialists, and the results presented in a short discussion of this object. The seal will be illustrated.

Animal bone

9.2.4 Analysis of the animal bone will involve the recording of basic (i.e. species, skeletal element etc) and more detailed information (see **Table 4**), which will form the basis for discussion and complete the animal bone archive. A short report detailing the results of the analysis will be prepared and should consider the following points: spatial distribution, species range, body part distribution, mortality profiles and butchery. The significance of any similarities or differences with contemporary assemblages (for example WA 2013) or similar deposits of animal bone should also be fully explored in the report. The small animal and fish bones recovered from the bulk samples should also be considered with the other material.

9.3 Environmental evidence

Charred plant remains

9.3.1 It is proposed to analyse the charred plant remains from four samples, from pits 315 and 347 in Trench 3, and from pit 424 and structure 420 in Trench 4.



- 9.3.2 All identifiable charred plant macrofossils will be extracted from the 2 and 1mm residues together with the flot. Identification will be undertaken using stereo incident light microscopy at magnifications of up to x40 using a Leica MS5 microscope, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals and with reference to modern reference collections where appropriate. They will be quantified and the results tabulated.
- 9.3.3 The samples proposed for analysis are indicated with a "P" in the analysis column in **Appendix 1**.

Wood charcoal

- 9.3.4 It is proposed to analyse the wood charcoal from four samples from pit 347 in Trench 3, pit 424 and structure 420 in Trench 4, and from pit 508 in Trench 5.
- 9.3.5 Identifiable charcoal will be extracted from the 2mm residue and the flot (>2mm). Larger, richer samples will be sub-sampled. Fragments will be prepared for identification according to the standard methodology of Leney and Casteel (1975; see also Gale and Cutler 2000). Charcoal pieces will be fractured with a razor blade so that three planes can be seen: transverse section (TS), radial longitudinal section (RL) and tangential longitudinal section (TL). They will then be examined under bi-focal epi-illuminated microscopy at magnifications of x50, x100 and x400 using a Kyowa ME-LUX2 microscope. Identification will be undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980). Identification will be to the lowest taxonomic level possible, usually that of genus and nomenclature according to Stace (1997), individual taxon (mature and twig) will be separated, quantified, and the results tabulated.
- 9.3.6 The samples proposed for charcoal analysis are indicated with a "C" in the analysis column in **Appendix 1**.

Mineralised remains

9.3.7 It is proposed to analyse the mineralised plant remains recovered from the four samples selected for charred plant analysis.



10 RESOURCES AND PUBLICATION

10.1 **Proposed publication**

- 10.1.1 In view of the quantity and nature of the archaeological evidence obtained from the excavation, it is proposed that the results of the proposed analysis should be published as a short article (approximately 20 pages) in the *Wiltshire Archaeology and Natural History Magazine*.
- 10.1.2 However, an alternative that will be considered, depending on the Client's requirements, is a stand-alone, full colour publication (approximately 20 pages) which would include the principal results from analysis of the stratigraphic, finds and environmental elements of the excavation.

10.2 Management structure

- 10.2.1 Wessex Archaeology operates a project management system. The team will be headed by a Senior Project Manager, in this instance Lorraine Mepham who will assume ultimate responsibility for the implementation and the execution of the project and the achievement of performance targets, be they academic, budgetary or scheduled.
- 10.2.2 The manager may delegate specific aspects if the project to other key staff, who both supervise others and have a direct input into the compilation of the report. They may also undertake direct liaison with external consultants and specialists who are contributing to the publication report and the museum named as the recipient of the project archive. The manager will have a major input into how the publication report is written and will define and control the scope and form of the post-excavation programme.

10.3 Performance monitoring and quality standards

10.3.1 The Project Manager (Lorraine Mepham) will be assisted by the Quality and Publications Manager (Philippa Bradley), who will help to ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines.

10.4 Designated project team

10.4.1 The designated project team consists entirely of internal Wessex Archaeology staff, with the exception of the documentary researcher who will be an external specialist. The post-excavation team will be managed by Lorraine Mepham, and the lead author will be Phil Harding. The following Wessex Archaeology staff are currently scheduled to undertake the work as outlined in the task list (**Table 5**).

Table 5: Task list

Task ID	Task	Staff	Days
Managen	nent		•
1	Project management	Lorraine Mepham	1
Pre-analy	/sis	·	
2	Extraction of charred plant remains	Nicola Mulhall	2.5
Finds			
3	Pottery	Lorraine Mepham	3
4	Clay tobacco pipes	Lorraine Mepham	3
5	Seal matrix	Lorraine Mepham	1
6	Animal bone	Lorrain Higbee	3
7	Other finds	Lorraine Mepham	0.5
8	Finds illustrations	Elizabeth James	3.5
Environn	nental	·	
9	Charred plant remains	Sarah Wyles	4
10	Wood charcoal	Cathie Barnett	4
11	Palaeo-environmental summary	Sarah Wyles	1
Documer	ntary	·	
12	Documentary research	External specialist	2
Stratigra	phic text	·	
13	Introduction	Phil Harding	1
14	Site description by phase/area	Phil Harding	2
15	Integrate specialist reports	Phil Harding	1
16	Research and discussion	Phil Harding	2
17	Compile bibliography and check text	Phil Harding	1
18	Site illustrations	Elizabeth James	3
Report p	roduction	·	
19	Report editing	Phil Andrews	1
20	Report QA and submission	Pippa Bradley	1
21	Journal charge		£1000
Archiving	9		
22	Archive preparation and deposition	Various	2.75
23	Box storage charge	Artefacts, ecofacts & paper archive	£500



11 STORAGE AND CURATION

11.1 Museum

- 11.1.1 It is recommended that the project archive resulting from the excavation be deposited with Salisbury & South Wiltshire Museum. Transfer of title of the finds to the Museum will be sought from the landowner.
- 11.1.2 The Museum is not currently accepting archaeological archives due to lack of storage space; the archive will therefore continue to be held by Wessex Archaeology until this situation is remedied, but if this period exceeds two years from the completion of the project, storage charges will be levied.

11.2 Preparation of archive

- 11.2.1 The complete site archive, which will include paper records, photographic records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Salisbury & South Wiltshire Museum, and in general following nationally recommended guidelines (SMA 1995; IfA 2009; Brown 2011; ADS 2013).
- 11.2.2 All archive elements are marked with the site code (**85970/1**), and a full index will be prepared. The physical archive comprises the following:
- 17 cardboard boxes or airtight plastic boxes of artefacts & ecofacts, ordered by material type
- 00 files/document cases of paper records & A3/A4 graphics
- 00 A1 graphics

11.3 Conservation

- 11.3.1 No immediate conservation requirements were noted in the field. Finds which have been identified as of unstable condition and therefore potentially in need of further conservation treatment comprise the metal objects.
- 11.3.2 Metal objects have been X-radiographed as part of the assessment phase, as a basic record and also to aid identification. On the basis of the X-rays, the range of objects present and their provenance on the Site, no objects are considered to warrant further conservation treatment.

11.4 Discard policy

11.4.1 Wessex Archaeology follows the guidelines set out in *Selection, Retention and Dispersal* (Society of Museum Archaeologists 1993), which allows for the dispersal of selected artefact and ecofact categories which are not considered to warrant any future analysis. A selection strategy also exists for archaeological material recovered from Salisbury, prepared by Wessex Archaeology with the agreement of Salisbury & South Wiltshire Museum. This covers the following material types:



- *Ceramic Building Material:* flat tile discarded, apart from glazed pieces, complete lengths or widths, and any with unusual features; all other roof tile (e.g. ridge tile, hip tile) and roof furniture retained; brick discarded apart from selected samples of complete bricks; all floor tile (both glazed and unglazed, plain and decorated) retained.
- Stone Building Material: slate roofing tiles discarded.
- *Vessel glass:* post-medieval green wine bottle discarded, apart from complete or near complete examples.
- *Burnt, unworked flint:* all discarded.
- *Metal objects:* all iron nails discarded.
- 11.4.2 All finds will be recorded to an appropriate archive level before discard, and discard will be fully documented in the project archive.
- 11.4.3 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2002).

11.5 Copyright

11.5.1 The full copyright of the written/illustrative archive relating to the Site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The recipient museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms with the Copyright and Related Rights regulations 2003.

11.6 Security copy

11.6.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

12 **REFERENCES**

- ADS, 2013. Caring for Digital Data in Archaeology: a guide to good practice, Archaeology Data Service & Digital Antiquity Guides to Good Practice
- Albarella, U., 2006. Pig husbandry and pork consumption in medieval England, in C. M. Woolgar, D. Serjeantson and T. Waldron (eds.), Food in Medieval England: Diet and Nutrition. Medieval History and Archaeology Series. Oxford: Oxford University Press, 72-87
- Atkinson, D.R., 1970. Clay tobacco pipes and pipemakers of Salisbury, Wiltshire, *Wilts. Archaeol. Natur. Hist. Mag.* 65, 177-89
- Butterfield, B G and Meylan, B A, 1980. Three-Dimensional Structure of Wood. An Ultrastructural Approach, London and New York: Chapman and Hall



- Brown, D.H., 2011. Archaeological archives; a guide to best practice in creation, compilation, transfer and curation, Archaeological Archives Forum (revised edition)
- Currie, C.K. and Rushton, N.S., 2005. An Archaeological Excavation at the rear of 36 Milford Street/34 Gigant Street, Salisbury. *Wiltshire Archaeological and Natural History Magazine* 98, 213-235

Chandler, J., 1983. Endless Street: a history of Salisbury and its people. Salisbury

- Copland-Griffiths, P., 1989. Excavation near a 17th century kiln at Horton, Dorset, Proc. Dorset Natur. Hist. Archaeol. Soc. 111, 71-85
- Driver, J. C., 2004. Food, status and formation processes: a case study from medieval England, in S. Jones O'Day, W. Van Neer, and A. Ervynck (ed.), Behaviour behind bones: the zooarchaeology of ritual, religion, status and identity. Proceedings of the 9th Conference of the International Council of Archaeozoology, Durham. Oxford: Oxbow Books, 244-251
- Drury, P., 2008. *Hill Hall: a singular house devised by a Tudor intellectual*, Soc. Antiq. London
- English Heritage, 2002. Environmental Archaeology; a guide to theory and practice of methods, from sampling and recovery to post-excavation, Swindon, Centre for Archaeology Guidelines
- Gale, R and Cutler, D, 2000. *Plants in Archaeology*, Westbury and Royal Botanic Gardens, Kew.
- Hare, J.N., 1991. The growth of the roof-tile industry in later medieval Wessex, Medieval Archaeol. 3, 86-103
- Hawkes, J., n.d. *Excavations in Salisbury 1984-1990*. Wessex Archaeology Unpublished Report
- Hinton, P. 2000. The Plant Remains in Rawlings, M. Excavations at Ivy Street and Brown Street, Salisbury 1994 *Wiltshire Archaeological and Natural History Magazine* 93, 20-62
- Hinton, P. 2005. Plant Remains in Barber, B. The Development of Trinity Chequer: Excavations at the Anchor Brewery site, Gigant Street, Salisbury *Wiltshire Archaeological and Natural History Magazine* 98, 165-212
- IfA, 2009. Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives, Institute for Archaeologists
- Leney, L and Casteel, R W, 1975. Simplified Procedure for Examining Charcoal Specimens for Identification, *Journal of Archaeological Science* **2**, 53-159.
- Mepham, L., 2000. Pottery, in M. Rawlings, Excavations at Ivy Street and Brown Street, Salisbury, 1994, Wilts Archaeol. Natur. Hist. Mag. 93, 29-37
- Musty, J., Algar, D.J. and Ewence, P.F., 1969. The medieval pottery kilns at Laverstock, near Salisbury, Wiltshire, Archaeologia 102, 83-150



- Musty, J., with Algar, D., Gerrard, C. and Hadley, J., 2001,.Pottery, tile and brick' in P. Saunders (ed.), Salisbury and South Wiltshire Museum Medieval Catalogue Part 3, Salisbury, 132-212
- Pearce, J., 2007. Pots and Potters in Tudor Hampshire: Excavations at Farnborough Hill Convent, 1968-72, Guildford Museum, Guildford Borough Council & Museum of London Archaeology Service
- Rawlings, M., 2000. Excavations at Ivy Street and Brown Street, Salisbury, 1994. *Wiltshire Archaeological and Natural History Magazine* 93, 20-62
- RCHM, 1980. Royal Commission on Historical Monuments. *Ancient and historical monuments in the city of Salisbury.* Vol. 1. London: HMSO.
- Schweingruber, F H, 1990. *Microscopic Wood Anatomy* (3rd edition), Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research.
- SMA, 1993. Selection, Retention and Dispersal of Archaeological Collections, Society of Museum Archaeologists
- SMA, 1995. Towards an Accessible Archaeological Archive, Society of Museum Archaeologists
- Stace, C, 1997. *New flora of the British Isles* (2nd edition), Cambridge: Cambridge University Press.
- Sykes, N., 2007. Taking sides: the social life of venison in medieval England, in A. Pluskowski (ed.), Breaking and Shaping Beastly Bodies: Animals as Material Culture in the Middle Ages. Oxford: Oxbow Books, 149-60
- Webster, C.J. (ed.), 2008. The Archaeology of South West England. South West Archaeological Research Framework: Resource Assessment and Research Framework, Somerset County Council
- Wessex Archaeology, 2012. 44-50 Bedwin Street, Salisbury, Wiltshire: archaeological trial trench evaluation report, unpubl. client rep., ref. 85970.04
- Wessex Archaeology, 2013. Former ATS site, 28 St Edmunds Church Street, Salisbury, Wiltshire: archaeological watching brief report, unpubl. client rep., ref. 85490.01
- WCAS [Wiltshire Council Archaeology Service] 2004. The Archaeology of Wiltshire's Towns: An Extensive Urban Survey. Salisbury
- Zohary, D, and Hopf, M, 2000, Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley, 3rd edition, Clarendon Press, Oxford



13 APPENDICES

13.1 Appendix 1: Assessment of the charred plant remains and wood charcoal

Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
					1			Tren	ch 3			l .	
Pits													
315	320	2	20	175	5	А	с	Free-threshing + barley grain frags, coleoptile	В	Vicia/Lathyrus, Avena/Bromus, Galaeopsis	15/30 ml	Sab/f (A), min. matter inc. seeds	Р
316	324	1	20	175	5	В	-	Free-threshing + barley grain frags	В	Corylus avellana shell frags, Vicia/Lathyrus, Rumex, Avena/Bromus	25/40 ml	Sab/f (A), Moll-t (C), min. matter	-
347	348	3	20	250	3	A*	-	Free-threshing + barley grain frags	С	Avena/Bromus	20/45 ml	Sab/f (A), lots of min. matter inc. seeds	РC
								Tren	ch 4				
Pits													
414	440	10	10	80	2	В	-	Free-threshing + barley grain frags	С	Vicia/Lathyrus, Avena/Bromus	10/5 ml	Sab/f (A), min. matter inc. seeds	-
424	423	7	30	325	2	А	-	Free-threshing + barley grain frags	В	Corylus avellana shell frags, Vicia/Lathyrus, Avena/Bromus	40/80 ml	Sab/f (A), min. matter inc. seeds	РC
Chalk-li	ned shaf	ft											
420	421	6	40	4400	1	A	-	Free-threshing + barley grain frags	В	Corylus avellana shell frags, Vicia/Lathyrus, Avena/Bromus, Trifolium/Medicago	100/50 ml	Sab/f (A), lots of min. matter inc. seeds	РC
								Tren	ch 5				
Pit									-				
508	515	9	10	1100	1	-	-	-	-	-	10/5 ml	lots of vitrified charcoal/clinker type material	С
								Tren	ch 7				
Hearth													
	770	5	2	15	2	С	-	Wheat grain frag	-	-	1/2 ml	Sab/f (C)	-



Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
Trench 8													
Pit													
1851	1852	8	20	60	2	А	-	Free-threshing + barley grain frags	В	Corylus avellana shell frags, Vicia/Lathyrus, Avena/Bromus	5/7 ml	Sab/f (A), min. matter inc. seeds	-
Floor													
	826	4	2	20	2	С	-	Free-threshing + barley grain frags	С	Corylus avellana shell frag, Galium	2/4 ml	Sab/f (A)	-

Key: A^{***} = exceptional, A^{**} = 100+, A^* = 30-99, A = >10, B = 9-5, C = <5; Sab/f = small animal/fish bones Analysis: P = plant,



Site and areas of excavation



Site plan showing Victorian and modern features



Trench 3: detail plan and sections



Trench 4: detail plan and sections

Figure 4







Trench 7: detail plans and sections



Trench 8: detail plans and sections



Plate 5: Trench 8 viewed from the east (scales 1m & 2m)



Plate 6: Wall foundation 1842 and wall 803 viewed from the south (scales 1m & 0.5m)

	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.						
_	Date:	11/12/13	Revision Number:	0			
111	Scale:	N/A	Illustrator:	SEJ			
	Path:	Y:\PROJECTS\85971\Drawing Office\Report figs\Excav\13_11_18\85971_Plates.cdr					





salisbury rochester sheffield edinburgh

Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk



Wessex Archaeology Ltd is a company limited by guarantee registered in England, company number 1712772. It is also a Charity registered in England and Wales, number 287786; and in Scotland, Scotlish Charity number SC042630. Our registered office is at Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB.