

**WESTMINSTER ABBEY SONG
SCHOOL RELOCATION PROJECT**

**NO. 2 THE CLOISTER,
WESTMINSTER ABBEY, LONDON
SW1P 3PA**

**AN ARCHAEOLOGICAL
EVALUATION**

SITE CODE: WSA14

**LOCAL PLANNING AUTHORITY:
WESTMINSTER CITY COUNCIL**

PLANNING REFERENCE: 13/11075/FULL

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**Westminster Abbey Song School Relocation Project
No. 2 The Cloister, Westminster Abbey, London SW1P 3PA**

An Archaeological Evaluation

Site Code: WSA14

Central NGR: TQ 3002 7943

Local Planning Authority: Westminster City Council

Planning Reference: 13/11075/FULL

Commissioning Client: The Dean and Chapter of Westminster Abbey

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1 ABSTRACT

- 1.1 This report details the results and working methods of an archaeological evaluation carried out by Pre-Construct Archaeology Ltd. In accordance with the approved Written Scheme of Investigation (Mayo 2014) five test pits were hand-excavated within the Receiver General's garden at No. 2 The Cloister, Westminster Abbey, London SW1P 3PA, centred at National Grid Reference TQ 3002 7943 (Figure 1). The work was commissioned by the Dean and Chapter of Westminster Abbey in response to a planning condition, which required an archaeological investigation to be carried out ahead of the redevelopment of the site.
- 1.2 The excavation of the five test pits revealed evidence for the medieval development of the site as well as its redevelopment following the Dissolution. The vast majority of the deposits were post-medieval in date and reflected the changing use of the former refectory during the late 16th and 17th century. Evidence for 19th century reconfiguration of the buildings within the site was also seen followed by the establishment of the present courtyard and garden in the 1950s. While the majority of the material recovered was post-medieval in date there was also evidence of medieval alterations to the refectory during the 13th or 14th century. During the investigation the footings of the north and south walls of the 11th century refectory were also exposed, along with an east-west aligned footing which predated the 11th century refectory.

2 INTRODUCTION

- 2.1 Between April 21 and 25, 2014 Pre-Construct Archaeology Ltd carried out an archaeological evaluation within the Receiver General's garden at No. 2 The Cloister, Westminster Abbey (Figure 1). The work was commissioned by the Dean and Chapter of Westminster Abbey in order to determine the nature and extent of the footings for the walls defining the courtyard garden. In addition to this it was hoped that by excavating the five planned trenches the archaeological potential of the courtyard could be determined.
- 2.2 The archaeological work was carried out by Pre-Construct Archaeology under the project management of Chris Mayo with Paw Jorgensen supervising the fieldwork. Professor Warwick Rodwell, OBE, FSA monitored the work on behalf of the Dean and Chapter.
- 2.3 The field evaluation entailed the excavation of five test pits (Figure 2). Three of these (Test Pits 1, 2 and 3) were designed to target the footings of the walls defining the garden, while the remaining two test pits were excavated in order to facilitate geotechnical work and also to determine the level of survival of archaeological deposits and features not directly associated with the foundations.
- 2.4 All site records were compiled using the Museum of London site code WSA14. Upon completion of the project the finds and completed archive will be deposited with Westminster Abbey Museum.

3 PLANNING BACKGROUND

3.1 National Policy: National Planning Policy Framework

3.1.1 In March 2012 the Department for Communities and Local Government issued National Planning Policy Framework (NPPF), which provides guidance for planning authorities, property owners, developers and others on the investigation and preservation of heritage assets.

3.1.2 In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance NPPF, by current Local Plan policy and by other material considerations.

3.2 Local Policy: City of Westminster's City Plan – Strategic Policies

3.2.1 The study aims to satisfy the objectives of the City of Westminster, which fully recognises the importance of the buried heritage for which they are the custodians.

3.2.2 Part V: Creating Places of the City of Westminster's City Plan: Strategic Policies (adopted November 2013) includes policies pertaining to the preservation and conservation of Westminster's wider historic environment.

POLICY S25 HERITAGE

Recognising Westminster's wider historic environment, its extensive heritage assets will be conserved, including its listed buildings, conservation areas, Westminster's World Heritage Site, its historic parks including five Royal Parks, squares, gardens and other open spaces, their settings, and its archaeological heritage. Historic and other important buildings should be upgraded sensitively, to improve their environmental performance and make them easily accessible.

Reasoned Justification

The intrinsic value of Westminster's high quality and significant historic environment is one of its greatest assets. To compete effectively with other major, world-class cities the built environment must be respected and refurbished sensitively as appropriate. Any change should not detract from the existing qualities of the environment, which makes the city such an attractive and valued location for residents, businesses and visitors.

Detailed policies for each type of heritage asset will be set out in the City Management Plan. Area-based characteristics and detailed measures required to protect and enhance heritage assets have been set out in Conservation Area Audit Supplementary Planning Documents and the Westminster World Heritage Site Management Plan.

3.3 Local Policy: City of Westminster Unitary Development Plan

3.3.1 The Westminster Unitary Development Plan (UDP), which was adopted 24 January 2007, sets out planning policies for developing land, improving transport and protecting the environment. Chapter 10 of the UDP contains policies pertaining to urban design and

conservation. Policy DES 11 specifically relates to Scheduled Ancient Monuments and areas and sites of archaeological priority and potential while DES 16 pertains to the World Heritage Site consisting of the Palace of Westminster and Westminster Abbey including St Margaret's Church.

DES 11: SCHEDULED ANCIENT MONUMENTS, AREAS AND SITES OF ARCHAEOLOGICAL PRIORITY AND POTENTIAL

Aim

10.147 To identify archaeological remains of national and local importance, conserve them in their settings, and provide public access to them. Where new development is proposed on sites of archaeological potential, to ensure adequate archaeological impact assessment, followed by appropriate provision for preservation or investigation, recording, and publication.

POLICY DES 11: SCHEDULED ANCIENT MONUMENTS, AREAS AND SITES OF ARCHAEOLOGICAL PRIORITY AND POTENTIAL

(A) Scheduled Ancient Monuments

Permission for proposals affecting the following Scheduled Ancient Monuments, or their settings, will be granted providing that their archaeological value and interest is preserved:

- 1) the Chapter House and Pyx Chamber in the Cloisters, Westminster Abbey
- 2) the Jewel Tower.

(B) Areas and Sites of Special Archaeological Priority and Potential

Permission will be granted for developments where, in order of priority:

- 1) all archaeological remains of national importance are preserved in situ
- 2) remains of local archaeological value are properly , evaluated and, where practicable, preserved in situ
- 3) if the preservation of archaeological remains in situ is inappropriate, provision is made for full investigation, recording and an appropriate level of publication by a reputable investigating body.

Policy application

10.148 There are three categories of archaeological remains. In order of importance they are:

- a) Scheduled Ancient Monuments: nationally important remains which are scheduled under the Ancient Monuments and Archaeological Areas Act 1979
- b) Areas of Special Archaeological Priority: areas rich in archaeological remains, where ground works are likely to reveal archaeological remains
- c) Sites of Archaeological Significance and Potential: areas where archaeological remains are known or thought likely to exist.

10.149 These locations are listed in the Sites and Monuments Record maintained by English Heritage. The Areas of Special Archaeological Priority are Lundenwic and Thorney Island; Paddington and Lillestone Villages; Marylebone Village; Tyburn Settlement and Ebury Village. The archaeological data produced by the Museum of London and English Heritage provide more detailed information, including further sites and areas of archaeological significance and potential

within Westminster. Areas of Special Archaeological Priority are illustrated on Maps 10.3-10.7. Information on these and other sites of archaeological priority and potential are available from the Greater London sites and monuments record maintained by English Heritage.

- 10.150 In considering applications for development of land with archaeological potential, the City Council will require an archaeological assessment detailing the potential impact of development upon surviving archaeological remains. Should archaeological evaluation and investigations be required, it must be undertaken in accordance with a written scheme of investigation approved by the City Council. The Greater London Archaeology Advisory Service provides guidance papers detailing these procedures. With respect to policy DES 11 B (3), investigation may include a watching brief and, or, a full excavation.
- 10.151 The City Council will seek professional archaeological advice as appropriate and will encourage applicants proposing development to do the same. Where development may affect land of archaeological priority or potential, the City Council will expect applicants to have properly assessed and planned for the archaeological implications of their proposals. In this way the Council and the applicant will have sufficient information upon which an informed planning decision, incorporating appropriate archaeological safeguards, may be based. Such safeguards normally consist of design measures to ensure the permanent preservation of archaeological remains in situ or, where that is not appropriate, archaeological rescue investigations in advance of development. The results and finds from archaeological investigations also need to be analysed, interpreted, presented to the public and curated for future use. Attention is drawn to the advice contained within the code of practice prepared by the British Archaeologists' and Developers Liaison Group.

Reasons

- 10.152 Archaeological remains are important evidence of the City's past and are a valuable historical, educational and tourist resource. They are finite and fragile; once lost, they cannot be recovered. The City Council considers that the archaeology of Westminster is a national as well as a local asset and that its preservation is a legitimate objective, against which the needs of development must be carefully balanced and assessed. The destruction of such remains should be avoided wherever possible and should never take place without prior archaeological excavation and record.
- 10.153 The most important archaeological remains are scheduled and are protected under the Ancient Monuments and Archaeological Areas Act 1979. Where works to such sites and their setting are proposed, including repair, scheduled ancient monument consent is required.
- 10.154 The London Plan states at Policy 4.C.10 that boroughs "should give careful consideration to the relationship between new development and the historic environment including archaeological areas, including tidal foreshores...". National planning guidance is set out in PPG16: Archaeology and Planning, issued in November 1990.
- 10.155 The preservation of Westminster's archaeological heritage is a material planning consideration and applicants will need to show that proposed development is compatible with the objectives of the City Council's archaeological policy. The Council will wish to implement that policy under relevant legislation and statutory guidance and by means of legal agreements and planning conditions.

DES 16: WORLD HERITAGE SITE

Aim

- 10.188 To safeguard the World Heritage Site.

POLICY DES 16: WORLD HERITAGE SITE

Permission will only be granted for developments that protect and conserve the character, appearance, setting and ecological value of the World Heritage Site

Policy application

10.189 Although no additional statutory controls follow from the designation of a World Heritage Site, PPG15: Planning and the Historic Environment states, in paragraph 2.22, that the designation highlights the outstanding international importance of the site which should be a key material consideration to take into account when determining planning and listed building consent applications. Great weight is placed upon the need to protect them for future generations. Development proposals affecting these sites or their settings need to be compatible with this objective and require careful scrutiny, often by way of formal environmental assessments, to ensure that their immediate and long term impact are fully evaluated.

Reason

10.190 The member states of United Nations Educational Scientific and Cultural Organisation UNESCO adopted the Convention concerning the Protection of World Cultural and Natural Heritage in 1972. This Convention provided for the creation of the World Heritage Committee which, in 1987, inscribed the area formed by the Palace of Westminster, St Margaret's and Westminster Abbey as a World Heritage Site, now one of twenty six in the United Kingdom. This area has thus been recognised as being of 'outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view'.

3.4 Site Specific Constraints

3.4.1 The site is located within the World Heritage Site of the Palace of Westminster and Westminster Abbey including St. Margaret's Church (number 426, designated inscription in 1987). Development within the World Heritage Site is guided by Policy DES 16 within the City of Westminster's Unitary Development Plan (adopted 24 January 2007)

3.4.2 The site is also located within an Area of Archaeological Potential as defined by the local authority.

3.5 Site Specific Background

3.5.1 On 31 January 2014 Westminster City Council granted Permission for Development (Conditional) to Ptolemy Dean Architects Ltd for the proposed conversion of the Abbey Song School in order to relocate public WCs and the conversion of the existing Receiver General's house at No. 2 The Cloisters to accommodate the relocated Abbey Song School including the erection of an infill extension within the existing garden area (Application No. 13/11075/FULL). Planning permission was granted subject to a number of conditions including the requirement for archaeological investigation prior to the commencement of the redevelopment (Condition 3):

Condition 3: Pre Commencement Condition

No development shall take place until the applicant (or their heirs and successors in title) has secured the implementation of a programme of archaeological investigation in accordance with a Written Scheme of Investigation which has been submitted by the applicant and approved in writing by the local planning authority. No development shall

take place other than in accordance with the Written Scheme of Investigation.

Reason:

To protect the archaeological heritage of the City of Westminster as set out in S25 of Westminster's City Plan: Strategic Policies adopted November 2013 and DES 11 of our Unitary Development Plan that we adopted in January 2007. (R32BC)

3.5.2 In accordance with Condition 3 of the planning permission a Written Scheme of Investigation (WSI) was prepared by Chris Mayo (2014) of Pre-Construct Archaeology Ltd and approved by both the Consultant Archaeologist to Westminster Abbey, Professor Warwick Rodwell, and the Archaeology Advisor to the City of Westminster, Dr Jane Sidell of English Heritage. The preparation of the WSI was guided by a briefing document prepared by Professor Warwick Rodwell (2013).

3.6 Research Design

3.6.1 The investigation will aim to address the following objectives and questions:

1. To determine / confirm the palaeotopography of the site, if possible.
2. To determine the presence or absence of prehistoric activity, if possible.
3. To determine the presence of Roman activity, if possible.
4. To determine the presence or absence of structural remains relating to the medieval frater, and if possible to ascertain the date of their disuse / demolition.
5. To determine the presence or absence of other medieval remains such as surfaces, deposits and cut features.
6. To establish the date and nature of post-medieval activity within the yard.
7. To establish the presence or absence of activity associated with the post-medieval 'dining room'.
8. To investigate / record all archaeological deposits revealed within the pits.
9. To establish the extent of past post-depositional impacts on the archaeological resource.

4 GEOLOGY AND TOPOGRAPHY

- 4.1 The study site is located on what used to be Thorney Island, the largest and probably the highest of the islands within the Tyburn delta. The island was located at the confluence of the Tyburn and the Thames rivers. Geologically Thorney Island consisted primarily of sand and gravel overlying London Clay (Thomas et al 2006).
- 4.2 It is likely that the church occupied the highest point of the former island. This is somewhat corroborated by the levels of the natural sand deposits observed in recent years through archaeological work carried out within the abbey precincts.
- 4.3 Previous archaeological work carried out in the Cellarium to the immediate south and west the natural sand was seen at 1.35m OD (Jorgensen 2014) and further to west still, in the northwest corner of Dean's Yard the natural sand was encountered at a maximum height of 0.92m OD (Jorgensen 2010).
- 4.4 The site is located on generally level ground at an elevation of approximately 4.06m OD.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Palaeoenvironmental

5.1.1 The natural sedimentary depositional sequence in the vicinity of the study site has a complex recent (in geological terms) history stretching back 6000 to 7000 years, the upper stratigraphy of the basal geology having been formed by alluvial deposition. The early Holocene sequence was characterised by channel margin deposition and the formation of palaeochannel dune systems. The meandering stream of the River Tyburn divided into two branches forming a tripartite division of the land near its confluence with the River Thames. Deposition of sand and gravel between the two branches of the stream commenced around 4350 cal. BP and led to the formation of a riverine dune system known as the Thorney Sand Bed (Thomas 2000). This area of firm ground amidst the marshland in the Tyburn delta later became known as Thorney Island (De Maré 1968) on which the current study site is located.

5.1.2 By the beginning of the Bronze Age the higher ground of the island had become dominated by lime forest, which was later replaced by oak-dominated woodland with a hazel understorey, whilst lower-lying areas around the periphery of the island were dominated by alder and sedge vegetation. Deforestation of the island occurred sometime during the Early Bronze Age with evidence for arable cultivation appearing shortly thereafter (Thomas *et al.* 2006).

5.2 Prehistoric

5.2.1 An archaeological excavation carried out by Pre-Construct Archaeology during 2009 towards the north of Dean's Yard, recovered a struck flint of Late Neolithic/Early Bronze Age date (Jorgensen 2010). Archaeological investigations undertaken prior to the extension of the Jubilee Line between 1991 and 1998 revealed evidence for Bronze Age activity along the east side of Thorney Island in the form of a timber revetment along the river as well as possible boundary fences. Environmental data collected during investigation in the 1990s indicated the presence of cereal pollen, suggesting arable cultivation in the vicinity during this period. Although there may have been significant human activity on the island from the Late Neolithic and through much of the Early Bronze Age, there appears to have been a much-reduced presence by the later Bronze Age (Thomas *et al.* 2006).

5.2.2 Evidence for Iron Age occupation is limited and has almost exclusively been recorded in the more elevated areas of the island. It has been suggested that this may have been due to a major flooding event during the middle of the 11th century AD, which resulted in extensive truncation of Late Bronze Age, Iron Age and Roman deposits along the peripheral areas of Thorney Island (Thomas *et al.* 2006). However, the 2009 excavation in Dean's Yard revealed a single pit that contained a small assemblage of Late Iron Age and early Roman pottery (Jorgensen 2010).

5.3 Roman

- 5.3.1 The Roman settlement of *Londinium* was centred upon the modern day City of London, some distance to the east of Westminster. Whilst no definite Roman features have been recorded during excavations on the former island, artefacts dating to this period have been recovered from a number of excavation sites. In the vicinity of the Abbey itself a number of antiquarian discoveries have been reported including a Roman sarcophagus found on the north side of the Abbey (Poole 1870). Although the sarcophagus itself was probably of Roman origin, it is likely that it was brought to the island and reused during the Saxon period.
- 5.3.2 Part of a Roman hypocaust and walls are reported to have been observed below the floor of the nave of the Abbey church and two fragments of Roman concrete floor have been recorded near the south side of the cloister and infirmary cloister (Thomas et al. 2006). Some accounts of the origins of Westminster Abbey claim that a temple dedicated to Apollo was constructed on Thorney Island in the second century AD., and when it was destroyed by a violent earthquake, King Lucius built the island's first church in its place (Morley 1890). However, no archaeological evidence exists to substantiate these suggestions.

5.4 Anglo-Saxon

- 5.4.1 The main Saxon settlement of *Lundenwic* was focussed on the area between present day Charing Cross and Aldwych to the north-east of the site. During the late Saxon period Thorney Island became an important religious centre. This is reflected by the place name 'Westminster', which derives from the Saxon word 'minster', referring to either the monastery church built on the island by Edward the Confessor or an earlier church on the site. It was consecrated prior to the Norman invasion of 1066.
- 5.4.2 One of the earliest references to a church derives from Offa's Charter, c. AD 785, which refers to 'St. Peter and the people of the Lord dwelling in Thornea at the awesome place called Westminster' (Barton 1992). The authenticity of this charter has been brought into question by various 20th century scholars and it seems likely that it is a later forgery.
- 5.4.3 It is more likely that the foundation of the abbey dates to the reign of King Edgar (959-75) who granted a foundation charter to St Dunstan. The church founded by St. Dunstan was described as a *monasteriolum*, or little monastery, and was inhabited by twelve monks and an abbot (Thomas et al. 2006).
- 5.4.4 Under Edward the Confessor the abbey was refounded and a new church built in stone to replace the earlier building. The anonymous 11th-century biographer of the Confessor stated in *Vita Ædwardi* that Edward's motives for founding a great Abbey church at Westminster were not only in his piety and devotion to St. Peter, the favourable location of the place, on the river and close to London, but principally because he wished for himself to be buried there (Field 1996).
- 5.4.5 Work on the new church commenced in 1045 and, although not completed in its entirety,

was consecrated in December 1065. *Vita Ædwardi* states that the new church was built far enough to the east of the existing one to enable services to continue in it; whilst Sulcard in his *History of Westminster* (written in the 11th century) states that the old church was demolished to make room for the new (Field 1996).

- 5.4.6 Limited archaeological evidence for a presence during the Saxon period has been found within the vicinity of the study site, including land reclamation deposits of Saxon date along with a contemporary partial donkey skeleton identified during investigations at 17 Dean's Yard (Murray 2003). Residual Saxon pottery was also recovered during the 2009 excavation towards the north of Dean's Yard (Jorgensen 2010). A recent excavation within the cellarium and adjacent spaces uncovered the remains of a late 10th or early 11th century chalk block wall (Jorgensen 2014).

5.5 Medieval

- 5.5.1 In the early medieval period, the pre-established seats of government and law were retained by the Norman Kings in an attempt to legitimise their claims to the throne. The Palace of Westminster, largely built by Edward the Confessor, was to remain the legislative centre and residence for over 500 years (De Maré 1968).
- 5.5.2 The flow of the Tyburn was heavily impacted upon in 1236 when, on the request of Henry III and the Lord Mayor, a conduit was installed by Tyburn Springs (near present day Marble Arch) to ensure a supply of clean water to the growing population of the city. While it is unclear exactly how much this impacted on the flow of the river it has been suggested that the stream was reduced to a mere trickle as a result of the piping of the springs (Barton 1992).
- 5.5.3 Following his return from visits to France in 1242 and 1243, Henry III embarked on an ambitious mission to rebuild Westminster Abbey as a rival to the great abbeys and churches of France. With the assistance of Master Henry of Reynes, the newly appointed Master of the King's Masons, the task of demolishing the old Romanesque church began (Field 1996).
- 5.5.4 By the time of the king's death in 1272 the work of rebuilding the abbey had not been completed although the unfinished church had been consecrated in 1269. The church was described as 'fully finished to the end of the quire' in 1285 (Field 1996).
- 5.5.5 On March 29, 1298 a chimney fire at the Palace of Westminster spread and consumed several of the buildings within the monastic precinct next to the palace. The damage caused by the conflagration was outlined in a note in the calendar of St. Mary's Southwark. It lists the buildings affected by the fire as the dorter, frater (refectory), cellarium and infirmary of the monastery. Eight years after the fire, in the later part of 1306, the frater was finally being roofed. The fact that eight years transpired before the repairs to the refectory were complete suggests that the damage to the building was severe (Rackham 1910). While the damage to the frater must have been severe it must have been restricted to the upper of the building as is evident by the survival of Romanesque arcading at ground floor level on the interior of the

north wall of the building (Robinson 1911). Following the fire work on the nave of Henry III's new church was halted and funding and manpower were instead diverted to the rebuilding of the damaged claustral buildings (Bond 1909).

- 5.5.6 Following the fire the royal household of Edward I was moved to York for the duration of the rebuilding of the palace on Thorney Island. During the King's absence the integrity of the inhabitants of the monastery was brought into question when the Royal Treasury at the Abbey was burgled. Even prior to the fire Edward had started to divert his attention, and funds, towards St. Stephen's Chapel in Westminster Palace and the burglary of 1303 resulted in a further reduction of royal support for the rebuilding of the Abbey (Field 1996).
- 5.5.7 Work on the ancillary buildings progressed slowly until the later part of the 14th century when a "great fortune" was bequeathed to the Abbey by Cardinal Langham. Even though the money had been intended to aide the completion of the nave, Abbot Litlyngton directed a significant portion of it towards finishing the rebuilding of the auxiliary buildings (Bond 1909).
- 5.5.8 The frater underwent further alterations during Abbot Litlyngton's tenure. This included increasing the height of the building (Bond 1909), although this work may have been carried out when the building was repaired after the fire. Rackham (1910) suggested that the surviving tracery of the windows set high in the north wall of the building predate Litlyngton's time and that they are more likely to be a result of the repairs carried out between 1298 and 1306. Rackham does, however, attribute the corbels within the building to Litlyngton, suggesting that the later work involved the reroofing of the frater.
- 5.5.9 An archaeological watching brief carried out by Pre-Construct Archaeology in The Sanctuary during 2008 revealed walls apparently associated with medieval buildings including the Chapter Clerk's dwelling and the Bishop of London's prison. Several pits and a palaeochannel of medieval date were also recorded (Jorgensen 2008). Further features of medieval date were recorded during the 2009 excavation in Dean's Yard (Jorgensen 2010). Investigations by PCA in the area of the *Cellarium* and *Misericorde* of Westminster Abbey, immediately east of Dean's Yard have revealed well-stratified medieval deposits, including walls of 11th- to 13th century date (Jorgensen 2014). Three 11-12th century grave cuts along with other medieval features were recorded during an archaeological evaluation carried out by PCA in Poet's Corner Yard to the southeast of the abbey church (Jorgensen 2012).

5.6 Post-Medieval

- 5.6.1 By 1528 the work that Henry III had started nearly three centuries earlier was finally completed with the carving of the screens. Only twelve years later, as a result of the Dissolution of the Monasteries, the deed surrendering the abbey to the crown was drawn up (Bradley 1895).
- 5.6.2 Following the dissolution of the monastery the precinct was divided up into several properties. By 1544 the area to the south of the great cloister, including the *misericorde* and

the convent kitchen became the property of the Dean while the area to the west of the great cloisters became the property of the newly appointed Bishop of Westminster. This latter property included the Cheyneygates estate (which had been the Abbot's residence), the cellarium and the yard between the cellarium and the misericorde. Four years later, in 1548 the ground within the Dean was granted the ground within the former frater to the augmentation of his garden (Robinson 1911).

- 5.6.3 By the time the ground within the frater was given to the Dean in 1548 the building had already been partially demolished. The order to take down the Frater had been issued on 5 November 1544 when it was "...agreyd bi master Deaine and the chapter that Guy Gasken, servant unto the said deaine and chapter shall forthwith in all hast for the awoiding of ferther inconveniences take downe the frater howse..." (Knighton 1997).
- 5.6.4 The bishopric of Westminster only lasted ten years and was abolished in 1550. When the bishopric was dissolved the property held by the Bishop of Westminster was granted to Lord Wentworth. Lord Wentworth died the following year where after the house was bequeathed to his son, the second Lord Wentworth. However, during the reign of Mary the monastery was briefly refounded and the property occupied by Lord Wentworth was given to Abbot Feckenham for his residence (Robinson 1911).
- 5.6.5 Historic maps dated as early as 1719 show that the west end of the former *Frater* consisted of three ranges of buildings surrounding an open courtyard. By 1849 a fourth range had been added within the southern part of the courtyard. The site appears to have been at least partially redeveloped by 1852. A plan dated to this year shows that the range to the north had been enlarged to further encroach on the open courtyard (WAM(P) 150). The plan identifies this new larger building, which occupied the northeast corner of the site, as a dining room. In the 1950s the site was cleared of buildings, with the exception of the one along the west side and it took up its current function as a courtyard and garden (Ptolemy Dean Architects 2013).

6 ARCHAEOLOGICAL METHODOLOGY

- 6.1 A total of five test pits were excavated (Figure 2). Test Pits 1, 2 and 3 were located in the northeast, southwest and southeast corners of the courtyard garden respectively while Test Pits 4 and 5 were located in the central part of the site. Prior to excavation of Test Pits 4 and 5 commencing the overlying stone slabs were lifted, recorded and numbered so they could be returned to their original position upon completion of the work.
- 6.2 The proposed test pit sizes had been outlined in the Written Scheme of Investigation (Mayo 2014) detailing the proposed work and were as follows:

Table 1: Test Pit Details

Test Pit	Dims at GL	Target depth (BGL)	Location	Achieved size
TP1	1.0 x 1.0m	c. 1.0m	NW corner of garden, within raised planting bed	1.0m x 1.0m x 1.0m
TP2	1.0 x 1.0m	c. 1.0m	SW corner of garden, around service cover	1.0m x 1.1m x 1.3m
TP3	1.0 x 1.0m	c. 1.0m	SE corner of garden, within raised planting bed	1.0m x 1.0m x 1.3m
TP4	1.0 x 0.5m	c. 0.4m	Central area of garden, to north of fountain	1.4m x 0.6m x 0.5m
TP5	1.0 x 0.5m	c. 0.4m	Central area of garden, to south of fountain	1.4m x 0.6m x 0.5m

- 6.3 Prior to excavation each trench was scanned for live services using a CAT (Cable Avoidance Tool) scanner. Following this, the trenches were hand excavated stratigraphically.
- 6.4 Archaeologically significant deposits were documented on *proforma* context sheets. These were also planned on permatrace at a scale of 1:10 or 1:20. Trench sections were also drawn on permatrace at a scale of 1:10. Site records were compiled using standard single-context recording methods. All archival material was identified with the unique site code WSA14.
- 6.5 On-site photography was carried out using a high resolution digital camera as well as colour slide and black & white 35mm film with each frame recorded on a *proforma* photographic register.
- 6.6 Upon completion the trenches were backfilled by hand and where necessary the stone slabs reinstated (Plates 1-3).



Plate 1: Receiver General's garden after completion of works, viewed south



Plate 2: Receiver General's garden after completion of works, viewed north



Plate 3: Receiver General's garden after completion of works, viewed southwest

7 ARCHAEOLOGICAL SEQUENCE BY INTERVENTION

7.1 Test Pit 1 (Figures 3 & 4, Plate 4)

- 7.1.1 The earliest feature uncovered in Test Pit 1 in the northeast corner of the site was the footing, [43], for the north wall, [31], of the 11th century monastic refectory. It had been constructed using blocks of Reigate stone and very occasional blocks of Taynton stone laid in regular courses and set in a very sandy pale yellow lime mortar. The top of the footing was recorded at 3.49m OD. Directly above this the wall proper, [31], had been constructed using predominantly Reigate stone and Caen stone blocks although occasional use of Taynton stone and chalk was also noted. These blocks had been laid in regular courses set in very sandy pale yellow lime mortar. Both the footing and wall extended east and west beyond the limits of the trench and base of the footing was not reached. The wall extended above the top of the test pit and only the portion of it which was defined within the boundary of the test pit has been discussed here.
- 7.1.2 Some of the stone blocks of footing [43] had been removed in antiquity (by cut [35]). This had formed an irregular cavity measuring 0.27m north-south by 0.45m east-west by 0.37m high along a portion of the north wall of the refectory; to the south it had been truncated by a later construction cut, [36]. It was first recorded at a height of 3.49m OD. The cavity had been filled with a deposit of loose light- to mid-grey crushed lime mortar and silty sand, [34]. Excavation of the deposit produced no datable finds although the presence of a turkey femur suggests a date later than the approximate introduction of the species in the mid-16th century (see Appendix 7). The deposit contained a high quantity (n=84) of animal bone and also a single iron nail fragment.
- 7.1.3 Directly south of the north wall of the refectory the cavity had been truncated by the construction cut, [36], for wall [10]. Only the north side of the cut survived as both wall [10] and its construction cut had been truncated by the construction cut, [20], for a later fireplace, [9]. As exposed the construction cut, [36], measured 0.32m north-south by at least 1.00m east-west by at least 0.50m deep and was first seen at a height of 3.47m OD. It extended west beyond the limits of the test pit and the base of the cut was not reached. As far as could be determined, wall [10] had been constructed directly against the sides of the construction cut. It had been built using red unfrosted bricks measuring 212mm x 105mm x 60mm. Many of these had been reused as was evident from the residual mortar present on many of the bricks, themselves laid in English bond and set in moderately hard mid- to dark grey ashy sandy lime mortar with moderately frequent small angular stones and frequent white flecks. While the manufacturing date for the bricks could have been 1450-1700 it is more likely, based on the mortar of the wall, that the construction date of wall [10] was sometime between 1700 and 1850. The earliest accurate cartographic evidence that shows a detailed view of the site is a plan by W. Dickinson dated 1719; this shows buildings along the east, west and north sides of the site. It is possible that wall [10] forms the north wall of the building shown along the north side of the site on this plan.

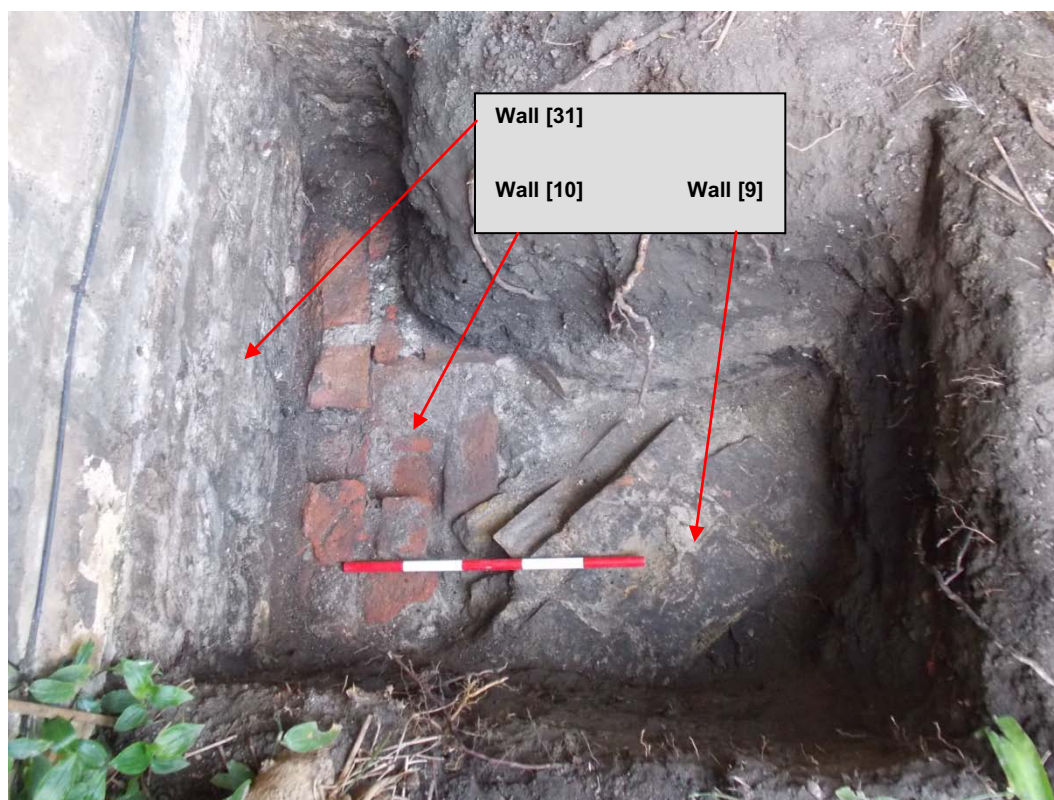


Plate 4: Test Pit 1 viewed east, showing E-W wall [10] and NW-SE fireplace wall [9] (scale = 0.5m)

- 7.1.4 In the southwest corner of the test pit the earliest deposit reached was a post-medieval demolition layer, [27]. To the northeast it had been truncated by the same fire place construction cut, [20], which truncated wall [10] and to the west and south the layer extended beyond the limits of the test pit. As exposed the layer measured 0.20m north-south by 0.20m east-west by 0.40m thick and it was first encountered at a height of 3.50m OD. The demolition layer, [27], consisted of loose pale grey to yellowish grey crushed lime mortar and brick rubble with frequent charcoal flecks. Excavation of the deposit produced a fragment of red Post-Great fire brick which could only broadly be dated to 1666-1900. The dating of the deposit can be somewhat refined by the two shards of window glass which could be dated to 1630-1700. It is possible that the layer was the result of either clearing part of the site prior to the construction of the building with which wall [10] was associated, or alternatively the demolition of this building in the mid 19th century.
- 7.1.5 Cutting both wall [10] and demolition layer [27] was the northwest-southeast aligned construction cut, [20], for wall [9]. The sides of the cut were vertical with a sharp break of slope at the top. To the northwest and southeast the cut extended beyond the limits of the test pit. As exposed the construction cut measured 1.02m northwest-southeast by 0.42m northeast-southwest by at least 0.50m in depth and it was first seen at a height of 3.47m OD. The wall, [9], had been constructed using a mixture of frogged yellow London stock bricks, white firebrick and reused red pre-Great Fire bricks. Bricks of slightly different sizes had been used and these could largely be divided into two different groups with one measuring 223mm x 110mm x 65mm and the other 220mm x 120mm x 62mm. However,

the majority of the materials used consisted of fragmented bricks, which further suggested the reuse of materials. The bricks had been laid in regular courses, although no discernible pattern appeared to have been used. While earlier bricks were present within the structure it is believed that its construction date occurred sometime between 1800 and 1950. Based on cartographic evidence it seems likely that the wall formed part of a fireplace constructed in the northeast corner of the site when a building containing a new dining room was constructed between 1849 and 1852.

- 7.1.6 Following the construction of wall [9] the construction cut, [20], was backfilled with a loose deposit of light- to mid-grey crushed lime mortar and brick rubble, [19], with frequent fine to medium angular stones. Unfortunately the excavation of the deposit yielded no finds so it could not contribute further to refining the date of the building with which it was associated.
- 7.1.7 Sealing the fill of the construction cut and extending across the entire test pit was a 0.12m thick layer of demolition rubble, [8]. It was first seen at a height of 3.63m OD and extended both west and south beyond the limits of the test pit; to the north and east it butted against the walls defining the Receiver General's garden. In the northwest corner the demolition layer had been truncated by a pit, [6]. The demolition deposit comprised loose light crushed lime mortar and brick and stone rubble. Excavation of the deposit produced only a single sherd of metropolitan slipware dated 1630-1700. This must however be seen to be residual as the layer sealed a wall of 19th century date. It is likely that the deposit represents the clearing of the site of buildings in the 1950s in preparation for the establishing of the present courtyard garden.
- 7.1.8 The demolition deposit was sealed by an 80mm thick layer of garden soil, [7], which was defined to the north and east by the walls of the garden and extended beyond the excavated limits to the south and west. Like the underlying demolition deposit, the garden soil horizon had been truncated in the northwest corner by a later pit, [6]. At the highest point the layer was recorded at a height of 3.71m OD. The deposit comprised loose dark brown silty sand with frequent lime mortar flecks and occasional fine rounded pebbles. It also yielded a small assemblage of ceramic building material which could be assigned an overall date of 1770-1900+ although residual medieval and early post-medieval material was also present. While the date range of the recovered material is rather broad, cartographic evidence shows that buildings occupied this portion of the site until the 1950s. It is therefore likely that the garden soil horizon represents the post-demolition establishment of the present garden.
- 7.1.9 Cutting the northwest corner of the garden soil horizon, [7], was a semi-circular or semi-oval pit, [6], which was only partially contained within the test pit. It extended west beyond the limits of the excavation and to the north it had been excavated against the north wall of the former refectory. The sides of the pit were concave with a sharp break of slope at the top and a more gradual break at the bottom where the sides transitioned into a concave base. As exposed the pit measured 0.56m north-south by 1.00m east-west by 0.25m in depth and it was first seen at a height of 3.71m OD. It contained a single fill, [5], which comprised loose

dark brown silty sand with moderately frequent fine sub-rounded stones and occasional flecks of chalk and charcoal as well as occasional evidence of bioturbation. The fill also produced fragments of ceramic building material that could be dated 1700-1900. It is likely that the pit represents a planting pit dating to sometime after the garden was established in the 1950s.

- 7.1.10 Sealing the pit and extending across the entire trench was another 0.23m thick buried garden soil horizon, [1], which comprised loose dark brown silty sand with frequent fine sub-rounded stones and evidence for bioturbation. To the west and south the horizon extended beyond the limits of the test pit and to the north and east it was defined by the walls of the garden. At the highest point the deposit was seen at a height of 3.89m OD. The garden soil horizon yielded pottery dated to the mid- to late 19th century, ceramic building material fragments dated 1666-1900 and glass shards dated to the 19th or 20th century as well as a single fragment of tap slag. It is probable that the deposition of the garden soil horizon occurred in or after the 1950s. Sealing it at a maximum height of 4.11m OD was the present garden soil horizon.

7.2 Test Pit 2 (Figures 3 & 4, Plates 5 - 8)

- 7.2.1 The earliest evidence for occupation uncovered during the current investigation was found in Test Pit 2 and consisted of an east-west aligned stone footing [37]. Due to the limited size of the test pit only a small portion of the footing was exposed. It extended east, west and south beyond the limits of the test pit. To the south the south wall of the refectory had been built on top of the footing although it seemed that the footing formed part of an earlier building. The footing appeared to have been trench built by pouring a mixture of pale yellow very sandy lime mortar and cobbles of Reigate stone and chalk directly into the construction cut. In the southern part of the test pit the footing survived to a height of 2.97m OD. From this point the top of the footing sloped down towards the south where it was recorded at 2.73m OD. It is likely that the height difference was due to later truncation during the construction of the south wall, [26], of the refectory. A mortar sample from wall [37] is considered to date from 1060 to 1700 (see Appendix 5).
- 7.2.2 Wall [37] was located below wall [26] which is considered to represent the 11th century construction of the refectory; therefore wall [37] must predate this 11th century phase of activity.

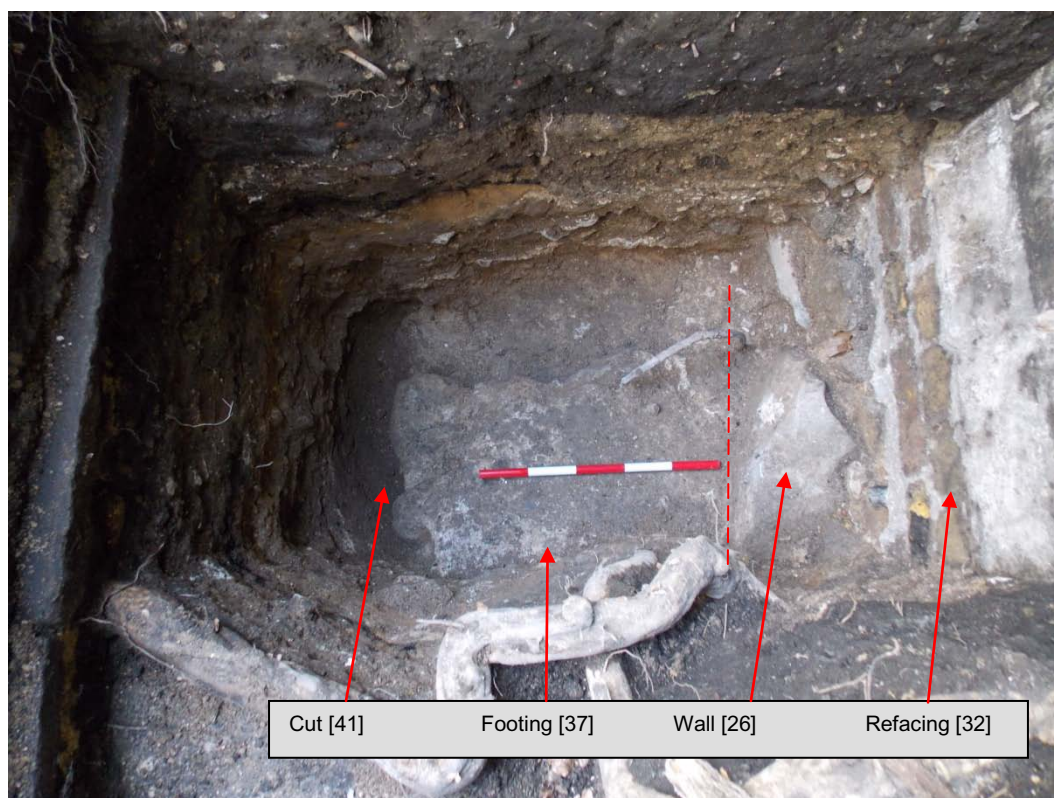


Plate 5: Test Pit 2 viewed east showing footing [37] at base (scale = 0.5m)

- 7.2.3 Sealing the stone footing was a 0.32m thick layer of demolition rubble recorded as [38]. This deposit extended beyond the eastern and western limits of the test pit and had been truncated to the south by the construction cut for wall [26]. As exposed it measured 0.68m north-south by 0.22m east-west by 0.32m thick and was first seen at a height of 3.01m OD. The demolition deposit comprised loose light yellowish brown to pale yellow crushed very sandy lime mortar and small chalk cobbles with frequent patches of crushed chalk. Unfortunately excavation of the deposit did not produce any finds. However, the mortar component of the deposit was reminiscent of the mortar used in the construction of footing [37]. This can, perhaps, be seen as an indication that the deposit is largely derived from the deconstruction of footing [37] prior to the construction of wall [26].
- 7.2.4 To the north the demolition deposit had been cut by [41], which was first seen at a height of 2.94m OD. The cut was located at the northern extreme of the test pit with only a small portion of it within the excavated area. Because only a small portion of the cut was visible it was not possible to determine its shape, size or function. As exposed the cut measured 0.28m north-south by 0.54m east-west and was at least 0.38m deep, although the base of the cut was not reached. The excavated side of the feature was almost vertical with a sharp break of slope at the top. It is likely that the cut represents either a pit or an east-west aligned ditch although this cannot be said with absolute certainty due to the small portion exposed. The feature was filled by a single fill, [39], which comprised friable to soft mid brown slightly sandy silt with occasional small chalk fragments and very occasional shell flecks. While the excavation of the deposit did not yield any finds it is evident from the

overlying deposits that feature [41] must have been backfilled sometime before the end of the 14th century, perhaps even the 11th century. Unfortunately it was not possible to establish the *terminus post quem* of when the backfilling occurred due to a dearth of finds from the earlier deposits.

- 7.2.5 In the southern part of the test pit demolition deposit [38] had been cut by [42], the construction cut for wall [26]. The upper part of the construction cut had been truncated by a later cut, [23], and thus only the lower 40mm survived. As far as could be determined from the small section of the construction cut surviving, wall [26] had been built directly against the sides of the cut. However, without more of the cut surviving it is impossible to determine this with any sort of certainty. The construction cut survived to a maximum height of 3.01m OD and extended both east and west beyond the limits of the test pit.
- 7.2.6 Wall [26] had been constructed using roughly hewn blocks of Kentish ragstone laid in regular courses although a few cobbles of Reigate stone were also present. On average the Kentish ragstone blocks measured 410mm x 200mm x 200mm while the Reigate cobbles measured around 120mm x 50mm x 80mm. These were bonded in a pale yellow very sandy lime mortar. The exposed part of the wall measured 0.65m east-west by 0.20m north-west by 0.29m high and it was first encountered at a height of 3.29m OD. Only the lower two courses of the wall were visible within the test pit. Above this the wall had been refaced (see [32]) some time between 1770 and 1940. Based on the construction materials used the wall could be dated to between 1060 and 1600. However, as the wall section exposed forms part of the south wall of the refectory, which was constructed in the 11th century it is likely that wall [26] forms part of this work.
- 7.2.7 In the northern part of Test Pit 2 fill [39] of cut [41] was sealed by a 40mm thick layer of compacted chalk dust, [25]. This extended south across much of demolition deposit [38] although it had been cut by a later construction cut, [23], at the southern extreme of the test pit. The surviving part of the crushed chalk deposit measured 0.68m north-south by 0.78m east-west in plan and was first encountered at a height of 3.01m OD in the south. It was relatively level across much of the test pit although at the northern end it had slumped into cut [23] and at its lowest point in this area the top of the chalk deposit was recorded at 2.92m OD. The nature of the deposit suggests that it was a mason's floor resulting in the dressing of chalk on-site during building construction. It seems likely that this deposit was related to the construction of the south wall of the refectory in the second half of the 11th century although this could not be confirmed due to a lack of temporally diagnostic finds.



Plate 6: Test Pit 2 viewed south showing wall [26] atop previous footing [37]. The visible brickwork and ashlar coursing above is the 19th century refacing of the wall.

- 7.2.8 The crushed chalk layer, [25], was sealed by a 0.21m thick demolition layer, [24], consisting of a mixture of loose white very sandy lime mortar, mid pinkish brown sand and chalk rubble. To the south the layer had been truncated by a later construction cut, [23], and to the north, east and west it extended beyond the limits of the test pit. As exposed the demolition layer measured 0.82m north-south by 0.75m east-west in plan. The top of the deposit undulated slightly and varied in height from 3.29m OD to 3.17m OD. Excavation of the deposit produced residual medieval pottery dated to the 13th and 14th century and residual ceramic building material dated to the 13th century. However, later pottery dated 1480-1600 and ceramic building material dated 1630-1850 was also recovered. It should be noted that out of the relatively large quantity of ceramic building material produced during the excavation of the deposit only a single fragment of pantile was dated 1630-1850 while the *terminus post quem* of the remainder of the assemblage as a whole was 1480 and the *terminus ante quem* 1700. The single fragment of later pantile is likely intrusive and fits better with the assemblage of the deposit above. Taking into account the pottery and the ceramic building material assemblages a likely date for the deposit is 1480-1600. It is

possible that the layer was a result of the partial demolition of the refectory in the mid-16th century.

- 7.2.9 Sealing the demolition layer, [24], was another demolition deposit, [3]. This had been truncated to the south by a later construction cut, [23], and extended north, east and west beyond the limits of the test pit. As exposed the layer measured 1.08m north-south by 1.02m east-west by 0.36m thick and was first seen at a height of 3.56m OD. The deposit comprised moderately compact grey crushed lime mortar, mid-brownish grey sand and crushed chalk with moderately frequent horizontal lenses of charcoal and yellow sand as well as frequent flecks of charcoal and occasional small pockets of clay. A sample taken from the mortar component of the deposit dated the mortar to 1700-1850 while a shard of window glass could be dated to the 19th or 20th century. It is likely that the deposit is related to the reconfiguration of the buildings within the yard carried out in the mid 19th century.
- 7.2.10 To the south the upper demolition layer, [3], was cut by the construction cut, [23], associated with the refacing, [32], of part of the south wall of the refectory. The cut extended both east and west beyond the limits of the test pit. As exposed it measured 0.64m north-south by 0.65m east-west by 0.58m deep and it was first seen at a height of 3.58m OD. As the cut had been excavated against the south wall of the refectory the south side was vertical. The north side of the construction cut was moderately steep and slightly concave in profile with a sharp break of slope at both the top and bottom of the cut.
- 7.2.11 The construction cut, [23], contained two discernible fills, [33] filling the lower part and [22] filling the upper part. Deposit [33] filled the lower 0.27m of the cut and comprised loose light yellowish brown sand, lime mortar and crushed chalk. It is probable that this deposit accumulated in the bottom of the cut during the removal of stone and mortar from the south wall of the refectory in preparation for refacing. After fill [33] had been deposited the wall was refaced, [32], using a mixture of yellow London stock bricks and ashlar blocks of Portland stone derived from the Whit Bed on the Isle of Portland. The lower two courses of the refacing consisted of yellow London stock bricks measuring 240mm x 110mm x 70mm. Of these the lower course had been with stretchers along the face of the wall while the upper course had been laid with headers along the face. Above this Portland stone ashlar blocks measuring between 320mm east-west x 220mm high and 200mm east-west x 80mm high had been used to face the wall. One of the Portland stone blocks contained two inscriptions, 'S7' at the west end of the block and '5' at the east end. Both of these inscriptions were inverted, perhaps indicating that the stone was reused. It is possible that these inscriptions were made at the off-site workshop where the stone was carved in order to mark the intended location of the block (Rodwell *pers comm* 24/4/2014). Both the bricks and the stone blocks were set in hard light grey cement mortar. While the bricks could be as early as 1770 these are likely reused and it is probable that the refacing of the wall was carried out no earlier than the mid-19th century, based upon the date of lower layer [3].



Plate 7: Inverted inscription 'S7' on wall refacing [32]



Plate 8: Inverted inscription '5' on wall refacing [32]

- 7.2.12 Following the refacing of the wall, [32], the upper part of the cut was backfilled. The upper fill, [22], of the cut comprised a 0.32m thick deposit of loose mid-grey crushed lime mortar and chalk rubble. Excavation of the deposit produced ceramic building material dated 1450-1700 and pottery dated 1600-1650. The building material assemblage contained two fragments of decorated Penn floor tiles dated 1330-1390 as well as a single fragment of unglazed floor tile dated 1060-1500. However, this material is residual and likely derived from layers [3] and [24] through which the construction trench cut. Sealing the upper fill, [22], of the construction cut, [23], and extending across the entire trench was a 0.50m thick layer of garden soil of the modern planting beds. The present ground level within this part of the garden was recorded at 4.09m OD.

7.3 Test Pit 3

- 7.3.1 In Test Pit 3 the earliest feature encountered was the footing [40] for the south wall [30] of the 11th century refectory. It was first encountered at a height of 3.28m OD, although this did not mark the real top of the footing as it had clearly been truncated by later alterations to the wall/footing of the building. However, this level is very close to the foundation offset recorded on the south side of the refectory wall at a height of 3.30m OD during the redevelopment of the cellarium and adjacent spaces (Jorgensen 2014). The footing had been constructed using roughly hewn chalk blocks averaging 120mm x 80mm x 100mm in size. These had been laid in regular courses set in hard light cream brown gravel mortar. The footing extended beyond the east and west limits of the trench and as exposed measured 1.00m east-west by 0.60m high. Based on the materials used in the construction of the footing it is likely that it was constructed sometime after 1060.
- 7.3.2 The south wall, [30], of the refectory within this part of the site had been constructed using roughly hewn blocks of Reigate stone and Taynton stone laid in regular courses and set in hard yellowish brown sandy mortar. These stones measured on average 220mm x 130mm high; the depth of the stones could not be determined as the wall was retained. The wall section discussed here is only the portion of the wall appearing within the test pit starting at the current ground level at a height of 4.18m OD. As seen the wall section measured 1.00m east-west by 0.28m high although it did extend east and west beyond the limits of the test pit as well as above the top of the test pit. While portions of the wall had been repointed the stones used could suggest a construction date as early as the second half of the 11th century.
- 7.3.3 Wall [44], which forms the current eastern footing and wall to the Receiver General's garden, was recorded in the eastern face of Test Pit 3 and was masonry-built comprising Kentish ragstone, Reigate stone and flint. The wall is considered to have been an internal partition within the 11th century refectory and dates from the 14th century, probably during the renovation work by Abbot Litlyngton (in post 1362-86). The wall had been underpinned in the 19th century.
- 7.3.4 A portion of the footing, [40], and wall, [30] had been removed and a brick relieving arch and associated brick lintel, [29], constructed in their place. Presumably this had been done in order to install a now extinct drain between the interior and exterior of the former refectory. The brick arch and lintel had been constructed using a mixture of red local Post-Great fire bricks and yellow London stock bricks laid on edge with the headers forming the face of the relieving arch. The discharging arch consisted of two courses of bricks while the lintel had been constructed using a single course. Only the western jamb of the opening for the drain was exposed within the test pit. This survived to a height of two courses below which the brickwork had been removed and concrete, [15], poured in its place. The apex of the relieving arch was recorded at a height of 4.05m OD while the bottom of the lintel was seen at 3.58m OD and the base of the top of the concrete underpinning the brickwork was

recorded at 3.40m OD. All the brick components; discharging arch, lintel and jamb had been built using the same mixture of bricks set in a grey cement mortar suggestive of a 19th century date while the concrete underpinning was of 20th century date and reflective of the drain falling into disuse. However, the underpinning will be discussed in more detail below.

- 7.3.5 Cast against wall [40] and presumably contemporary with the construction of the brick relieving arch, [29] was a 0.36m thick deposit of firm mid-brownish grey sandy silt, [4], with frequent chalk and charcoal flecks. This deposit extended north and west beyond the limits of the test pit and was first seen at a height of 3.43m OD. The material recovered from the deposit included pottery dated 1580-1700, ceramic building material dated 1480-1700, glass shards dated late 18th or 19th century and a tinned copper alloy pin. It is assumed that this deposit was associated with the construction of the relieving arch and associated jamb, [29], although the relationship between these could not be confirmed due to the later construction cut for the concrete underpinning truncating the area between [4] and [29]. Because deposit [4] is butting against the 11th century footing of the refectory, but clearly not of a similar date, it is assumed that the deposit is filling a larger cut with sides outside the excavated area. It is possible that this cut is related to the drain run for which the discharging arch was built.
- 7.3.6 Deposit [4] was sealed by a 40mm thick deposit of compacted sandy white lime mortar, [2], with frequent chalk fragments and occasional fine rounded stone. It extended north and west beyond the limits of the trench and was first recorded at a height of 3.47m OD. To the south it had been truncated by the construction cut, [16], for the underpinning [15] of the relieving arch, [29] and to the east by the construction cut, [18], for the underpinning [17] of wall [44]. A mortar sample taken from the deposit provided only a broad date range of 1060-1700. As the underlying deposit is of late 18th or 19th century date the mortar deposit cannot predate this. However, the earlier date of deposit [2] suggests that perhaps the material was derived from the destruction of an earlier structure. It may be the case that the deposition of the mortar layer was a result of the demolition of the earlier buildings when the site was partially redeveloped in the mid 19th century.
- 7.3.7 Both the mortar deposit, [2], and the base part of the jamb associated with the relieving arch [29] were cut by the construction cut, [16], for the underpinning/filling in of the drain opening in the south wall of the refectory, which is presumed to have occurred in the 20th century. The top of the cut was seen at 3.40m OD and the portion of the cut contained within the test pit measured 0.29m north-south by 1.00m east-west by 0.40m in depth. To the west it continued beyond the limits of the trench and to the east it was defined by wall [44]. The sides of the cut were steep with a sharp break of slope at the top and base. Filling the entire cut was a 0.40m thick block of poured concrete, [15]. On top of the slab, and filling the opening under brick lintel [29] was a single block of Portland stone [28].
- 7.3.8 To the north of the construction cut ([16]) was another linear cut, [18], for the underpinning of the wall ([44]) forming the eastern boundary of the present site, again assumed to have been 20th century in date. Although the second underpinning trench, [18], did not cut the

underpinning, [16], for the south wall it was clear that it was slightly later in date as its southern edge respected the northern edge of the earlier cut. The top of construction cut [18] was seen at a height of 3.43m OD and the cut was exposed to a depth of 3.00m OD although the base was not reached. To the north the cut extended beyond the limits of the test pit, so its full extent is not known. However, the portion contained within the test pit measured 1.00m north-south by 0.35m east-west by 0.40m deep. The sides of the cut were vertical with a sharp break of slope at the top. Filling the cut entirely was a block of concrete, [17], poured both under and against the lowest course of the footing of the wall, [44]. Sealing the concrete and extending across the entire test pit was the present garden soil horizon recorded at a maximum height of 4.05m OD.



Plate 9: Test Pit 3 viewed east showing 20th century underpinning, prior to deeper excavation

7.4 Test Pit 4 (Figure 3)

7.4.1 This test pit was excavated to a depth of 0.50m (3.25m OD). The sequence comprised only layers of concrete and modern made ground. In the southern part of the test pit the footings of the existing pond were uncovered.

7.5 Test Pit 5 (Figures 3 & 4)

- 7.5.1 In Test Pit 5 the earliest deposit reached was a layer of demolition rubble comprising loose mid-yellowish brown sandy mortar and chalk and brick rubble, [14]. The bottom of the layer was not reached and the deposit extended east and south beyond the limits of the test pit; to the north it had been truncated by the construction cut for the modern pond in the centre of the site and to the west by a linear cut, [13]. As exposed the layer measured 0.60m north-south by 0.22m east-west by 0.16m thick and it was first seen at a height of 3.40m OD. Excavation of the deposit produced two fragments of ceramic building material which could only broadly be dated to 1480-1900. It is not clear whether the demolition layer is a result of the partial demolition of the refectory in the 16th century, the demolition of the buildings on site during the mid 19th century redevelopment or indeed the demolition of the most recent buildings during the 1950s. However, the overlying deposit contained material dated 1630-1850, which suggests that the demolition layer is not related to the latest phase of demolition in the mid-20th century, but rather one of the earlier phases.
- 7.5.2 The demolition layer was truncated to the west by a north-south linear cut, [13], but as only a very small portion of the cut was contained within the test pit it is difficult to offer any interpretation of its function. To the south and west it extended beyond the limits of the test pit and to the north it had been truncated by the construction cut for the modern pond. Only the eastern edge of the cut was seen and here the exposed side was vertical with a sharp break of slope at the top; the base was not reached during the current investigation. As excavated the cut measured 0.60m north-south by 0.40m east-west by 0.16m deep and it was first seen at 3.40m OD. It was filled with a deposit of soft dark greyish brown silty sand, [12], with frequent charcoal and mortar flecks. Excavation of the deposit produced a pantile fragment dated 1630-1850, an iron nail and animal bone fragments.
- 7.5.3 Sealing the linear cut was another layer of demolition rubble, [11]. It comprised hard mid- to dark greyish brown silty sand and rubble with frequent mortar patches. The demolition deposit had been truncated to the north by the construction cut for the modern pond and to the east, west and south it extended beyond the limits of the test pit. As seen it measured 0.60m north-south by 0.62m east-west by 20mm thick and was first seen at a height of 3.42m OD. Excavation of the layer produced a fragment of pebble dated 1480-1900 as well as mortar dated 1700-1850. Sealing this layer was the modern bedding layer for the flagstone paving covering the courtyard. The top of the flagstones was recorded at a height of 3.74m OD.

8 SUMMARY ARCHAEOLOGICAL SEQUENCE BY PHASE

8.1 Phase 1: Pre-11th century Refectory

8.1.1 This phase is represented by a wall footing in Test Pit 2, aligned east-west below the existing southern wall to the garden. The wall predates the footing of the refectory, which was constructed in the 11th century.

8.2 Phase 2: 11th century Refectory and associated activity

8.2.1 Footings and wall elements from the 11th century refectory were seen in Test Pits 1, 2 and 3. A deposit below the wall of the refectory in Test Pit 2 but above the earlier footing was considered to be demolition material, raising the possibility that the earlier footing related to a structure which had then been either demolished, renovated or rebuilt to allow the construction of the refectory.

8.2.2 A suspected mason's floor surface, or deposit associated with mason's works, also in Test Pit 2, probably relates to the construction of the refectory.

8.3 Phase 3: 14th century activity

8.3.1 In Test Pit 3 the wall currently forming the eastern boundary to the garden was recorded; this structure is considered to be a 14th century partition within the refectory built during the tenure of Abbot Litlyngton from 1362 to 1386.

8.4 Phase 4: 16th century activity

8.4.1 16th century activity was recorded in Test Pit 1 with a small cut into the north wall of the refectory. It is possible that a debris layer in Test Pit 2 was a result of the partial demolition of the refectory in the mid-16th century.

8.5 Phase 5: 17th century activity

8.5.1 Further demolition material was found in Test Pit 1, which is tentatively dated to the 17th century. However these finds could also be residual, and the deposit may actually relate to the 19th century reworking of the area.

8.6 Phase 6: 18th - 19th century activity

8.6.1 Substantial 18th - 19th century activity was seen in Test Pits 1, 2, 3 and 5, attesting to the clearance of the site (following the partial demolition of the frater in the 16th and 17th centuries) and then the construction of the range of buildings visible on 18th and 19th century plans. A brick wall aligned east-west in Test Pit 1 was perhaps part of the dining room, and evidence for internal reconfiguration within this structure could be seen in the same intervention from a northwest-southeast aligned fireplace wall.

8.6.2 Evidence for the refacing of the south wall of the refectory was seen in Test Pit 2, datable to the 19th century and assumed to relate to the construction of the dining room and associated buildings.

8.6.3 In Test Pit 3 brickwork had been inserted in the southern refectory wall to install a drainage system in the 19th century.

8.7 Phase 7: 20th century activity

8.7.1 Test Pit 3 demonstrated two unexpected episodes of underpinning which had been completed in the 20th century to both the southern and then eastern walls of the garden. The underpinning comprised poured concrete with the inclusion of a Portland stone block at the southeastern corner of the garden.

8.7.2 Within Test Pit 1 was seen evidence for the 20th century usage of the garden.

9 CONCLUSIONS

9.1 General Conclusions

- 9.1.1 The evaluation consisted of the excavation of five test pits within the Receiver General's garden at No. 2 The Cloister. Three of the test pits (Test Pits 1, 2 and 3) measured 1m x 1m in plan and were excavated to a depth of between 1m and 1.2m. These were located in the southeast, southwest and northeast corners of the courtyard garden. In addition to these, two smaller test pits (Test Pits 4 and 5) measuring 0.6m by 1.4m in plan; these were only excavated to a depth of between 0.5m and 0.6m.
- 9.1.2 In Test Pits 1, 2 and 3 the footings for the north and south walls of the refectory were uncovered. The construction of the footing for the north wall was noticeably different from that of the south wall. In the construction of the footing for the north wall Reigate stone was the predominant building stone used and the break between the wall and the footing seems to have been at approximately 3.50m OD. The south wall footing appeared to have been constructed out of more diverse materials. In the southwest corner of the site the construction was almost entirely of Kentish ragstone while in the southeast corner blocks of chalk had been used. In both of the test pits along the southern wall there seemed to be a foundation offset at 3.28m OD. This is consistent with the foundation offset on the south side (external) of the south wall of the refectory which was recorded at 3.30m OD during an archaeological excavation to the south (Jorgensen 2014).
- 9.1.3 The floor level of the refectory is assumed to have been at the junction of the Reigate footing and the predominantly Caen stone faced wall on top of it in Test Pit 1. This junction occurs at 3.49m OD, which is remarkably similar to the estimated floor level (3.50m OD) within the Dorter undercroft along the east walk of the cloister (Mills 1995). The estimated height of the 11th century floor level within the refectory is further supported by the height of the foundation offset (3.28m OD) recorded along the north side of the south wall. This offset would have been below the floor level. It is likely that the 11th century floor level was at a maximum height of 3.49m OD and certainly no lower than 3.28m OD. Both the dorter undercroft and the frater form part of the 11th century building programme initiated by Edward the Confessor in association with his refounding of the monastery. It is interesting to note that the floor level within both buildings at the time of construction was approximately 3.50m OD. Assuming that there was level or near-level access from the great cloister to the two buildings in the 11th century then it can be estimated that the contemporary cloister level would have been at approximately 3.50m OD as well. This is roughly 0.50m below the present cloister paving.
- 9.1.4 In Test Pit 2 it was shown that at least part of the refectory had been built on an earlier footing. This earlier footing was not seen in Test Pit 3 to the east, suggesting that either the earlier building did not extend this far east or that the remains of the building were below the level reached by the archaeological investigation.

9.1.5 Evidence of at least three phases of post-medieval redevelopment of the site was seen in four of the five test pits. These phases can be broadly associated with the initial partial demolition of the refectory in the mid-16th century and the subsequent construction of buildings along three sides of the courtyard garden (possibly in the 18th century). These buildings, with the exception of the range to the west (which comprises the current house), appear to have been demolished between 1849 and 1852. By 1852 plans of the area show that the site had been redeveloped and a large dining room built in the northeast corner of the present courtyard garden. The north wall of the predecessor to this dining room was seen in Test Pit 1 as was a later wall associated with the fireplace in the northeast corner of the dining room. Evidence was also seen in most of the test pits of the demolition of the mid-19th century buildings during the 1950s redevelopment of the site.

9.2 Original Research Objectives

9.2.1 To determine / confirm the palaeotopography of the site, if possible.

None of the test pits were excavated to the top of the natural sand/gravel of the eyot, and therefore the palaeotopography within the garden is unknown. However recent archaeological investigations by PCA immediately to the south of the site revealed superficial natural sands at approximately +1.30m OD overlying gravels at approximately +0.43m (Jorgensen 2014).

9.2.2 To determine the presence or absence of prehistoric activity, if possible.

No evidence for prehistoric activity was seen. This may, however, be attributed to the limited depth of the test pits. None of the test pits extended below the medieval deposits.

9.2.3 To determine the presence of Roman activity, if possible.

There was no evidence for Roman activity on the site. This may be a result of the limited depth of the test pits rather than a indicative of an absence of activity during this period.

9.2.4 To determine the presence or absence of structural remains relating to the medieval frater, and if possible to ascertain the date of their disuse / demolition.

The footings for the both the north and south walls of the 11th century frater were exposed during the evaluation. This has resulted in the ability to estimate that the 11th century floor level within the building was between 3.28m OD and 3.49m OD although it seems likely that it was closer to the latter height.

In Test Pit 3 the current eastern wall to the garden was exposed, and considered to be the remains of a 14th century partition to the frater perhaps built by Abbot Litlyngton between 1362-86.

A demolition layer, [24], which was likely associated with the partial demolition of the frater in the mid-16th century, was seen in Test Pit 2.

- 9.2.5 To determine the presence or absence of other medieval remains such as surfaces, deposits and cut features.

In Test Pit 2 the footing for the south wall of the frater rested on the remains of an earlier east-west aligned footing. With the exception of this footing and the structural remains of the frater no medieval remains were uncovered. This, however, may be a result of the limited depth of the test pits and not necessarily evidence of the lack of surviving medieval deposits.

- 9.2.6 To establish the date and nature of post-medieval activity within the yard.

The earliest post-medieval deposit seems to be related to the mid-16th century demolition of part of the frater. Other post-medieval activity recorded included evidence for the redevelopment of the site in the 18th century and then again in the mid 19th century. A brick wall likely related to one of the buildings shown on the 1719 plan of the area was recorded in Test Pit 1.

- 9.2.7 To establish the presence or absence of activity associated with the post-medieval 'dining room'.

In Test Pit 1 a northwest-southeast aligned brick wall related to the 'dining room' was uncovered. Based on its alignment and position it is likely that this wall represents the structural remains of the fireplace shown in the northeast corner of the structure on the 1852 plan of the site as well as on later detailed plans.

- 9.2.8 To investigate / record all archaeological deposits revealed within the pits.

The evaluation recorded structural remains related to the 11th century refectory as well as some of the buildings occupying the northern part of the site throughout the post-medieval period. Also, deposits and features related to the successive redevelopments of the site in the 18th and 19th centuries were recorded.

- 9.2.9 To establish the extent of past post-depositional impacts on the archaeological resource.

The three deeper test pits excavated in three of the corners of the site showed that during the post-medieval period the ground had been reduced to below the foundation offset of the south wall of the refectory. This means that the remains of the earlier medieval floor levels have likely been removed by later development. Additionally, the base of the 14th century wall forming the eastern boundary of the site was seen in Test Pit 3. This wall appears to

have been underpinned during the 20th century, which would have led to at least localised destruction of the archaeological deposits down to this level. Evidence for an earlier building pre-dating the refectory survived below the footing of the south wall of the frater in Test Pit 2.

While there has been a moderate amount of past post-depositional impact on the archaeological resource it is still likely that earlier medieval deposits survive below these.

9.3 Closure

- 9.3.1 Following the approval of this report, and further to any subsequent site work which may be necessary, the archive resulting from the project comprising paper and digital records, photographs, digital data and artefactual material will be transferred by PCA to The Westminster Abbey Museum.
- 9.3.2 Until then the entire site archive is being stored at our company headquarters in Brockley, SE4 2PD.
- 9.3.3 The work was undertaken in good conditions and fully in accordance with the approved Written Scheme of Investigation for the project (Mayo 2014).

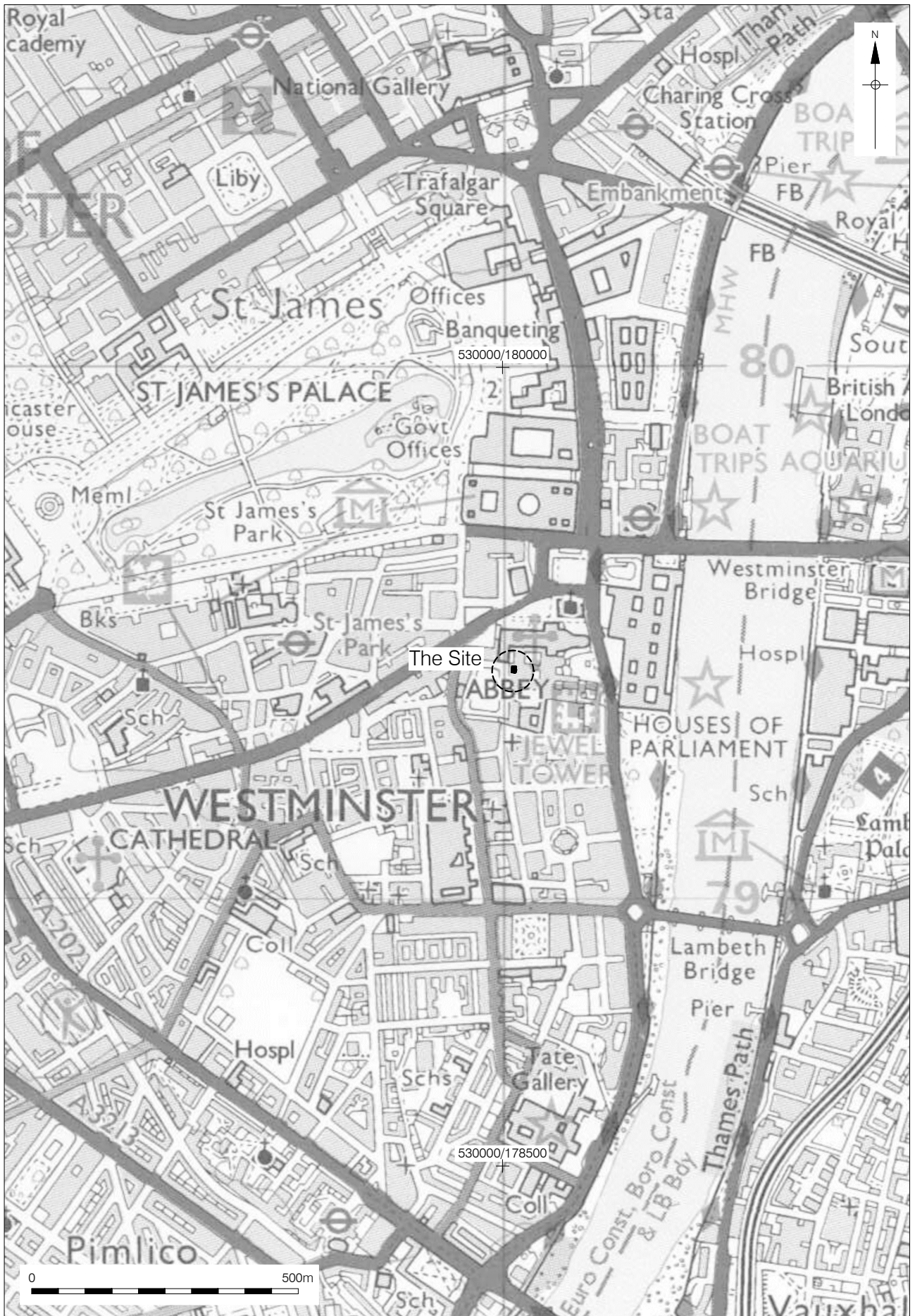
10 ACKNOWLEDGEMENTS

- 10.1 Pre-Construct Archaeology Limited would like to thank the Dean and Chapter of Westminster Abbey for commissioning and funded the archaeological work. We also thank Professor Warwick Rodwell, OBE, FSA for monitoring the project on behalf of Westminster Abbey, and providing continued advice and assistance.
- 10.2 PCA also thanks Jim Vincent, the Clerk of Works for providing access to the site and the Works Department at the abbey for allowing use of their facilities during the fieldwork.
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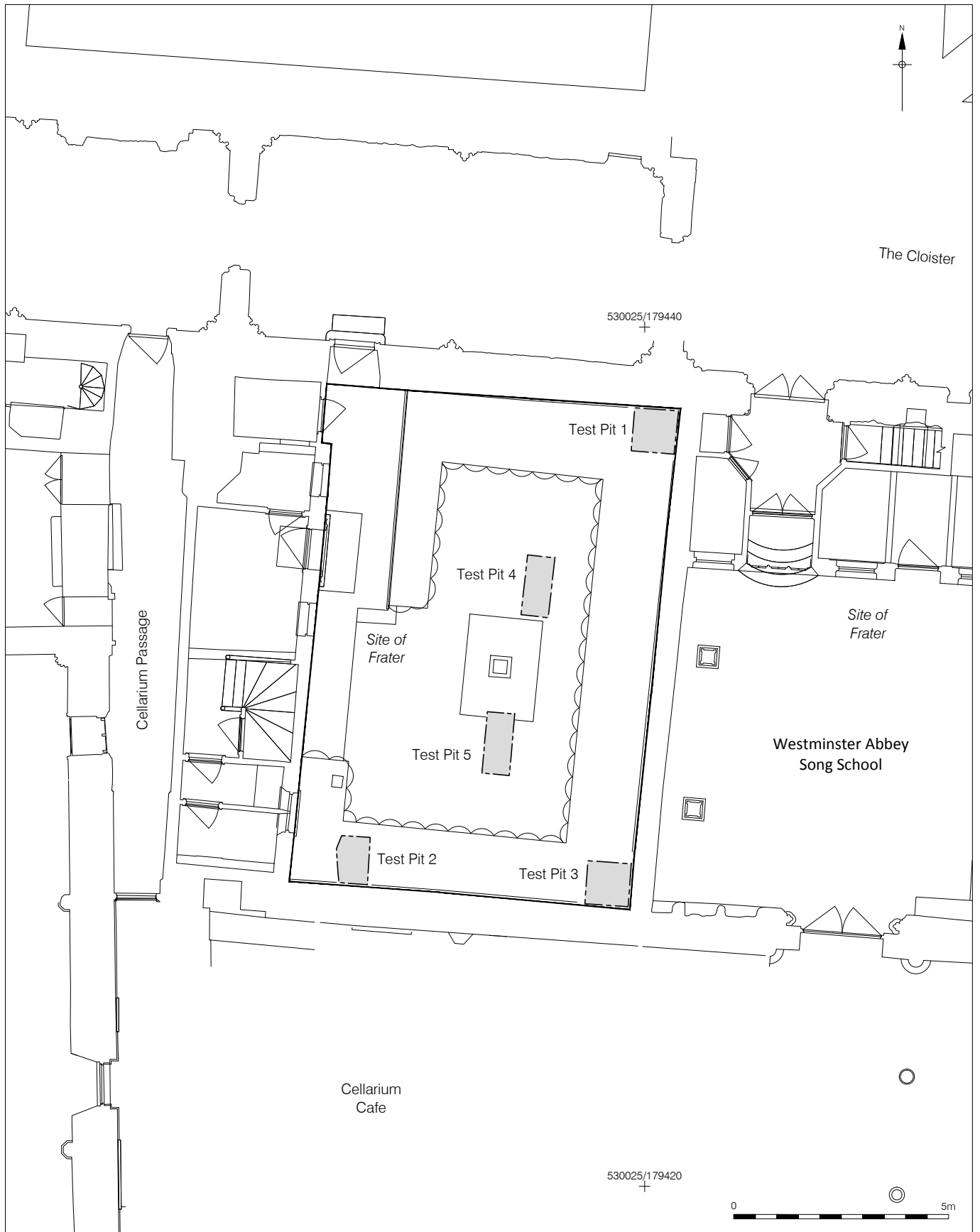
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Figure 1
 Site Location
 1:10,000 at A4



Building survey supplied by The Downland Partnership Ltd
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Figure 2
 Test Pit Location
 1:125 at A4

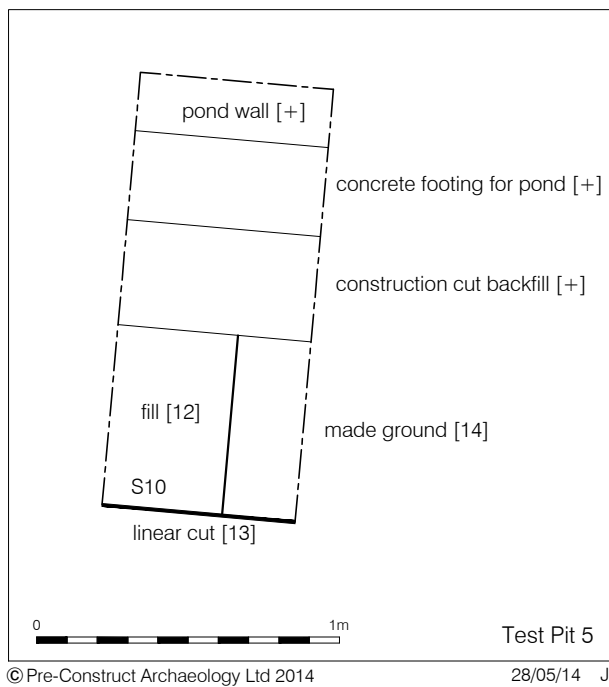
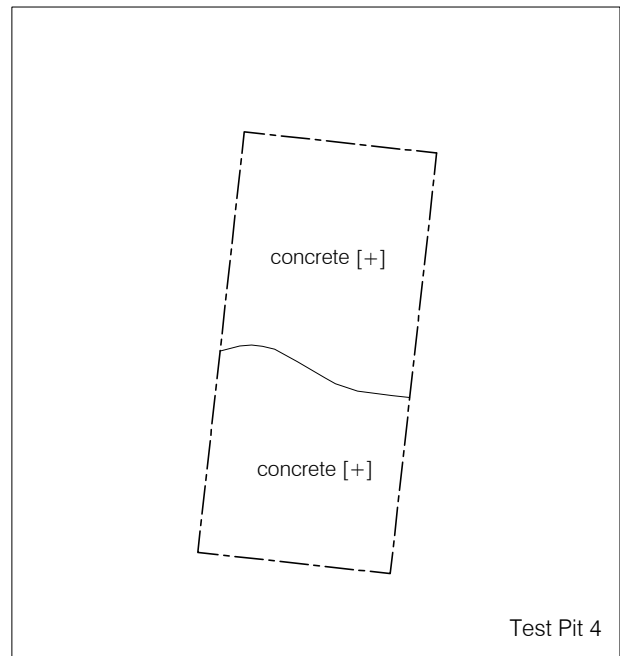
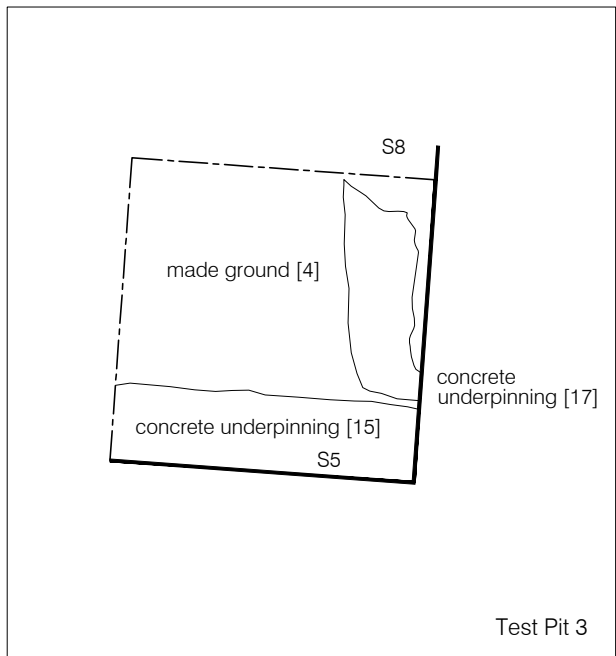
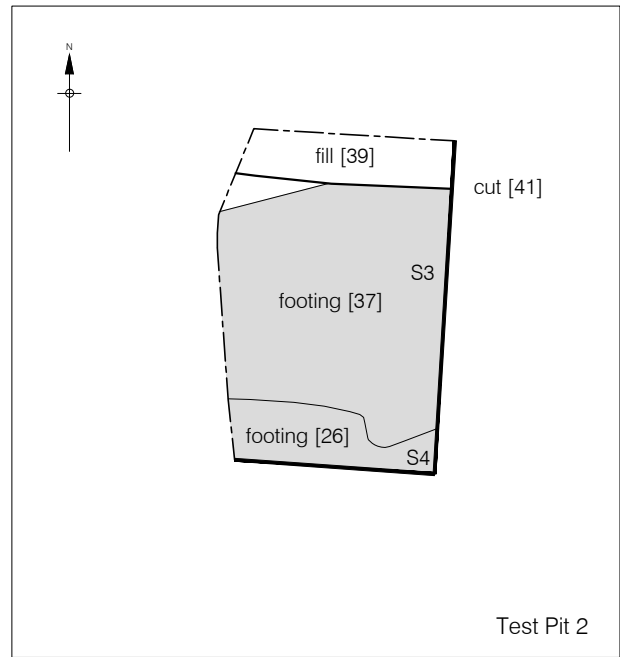
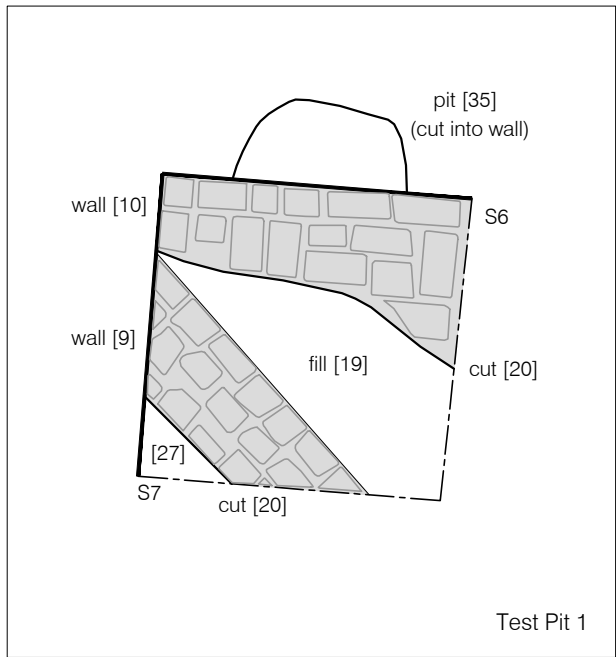
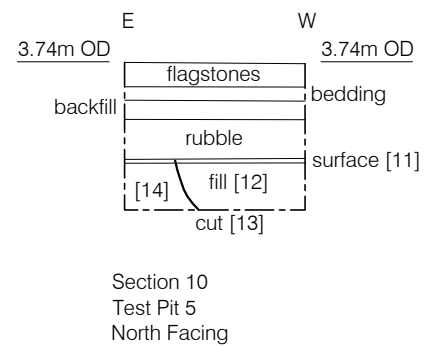
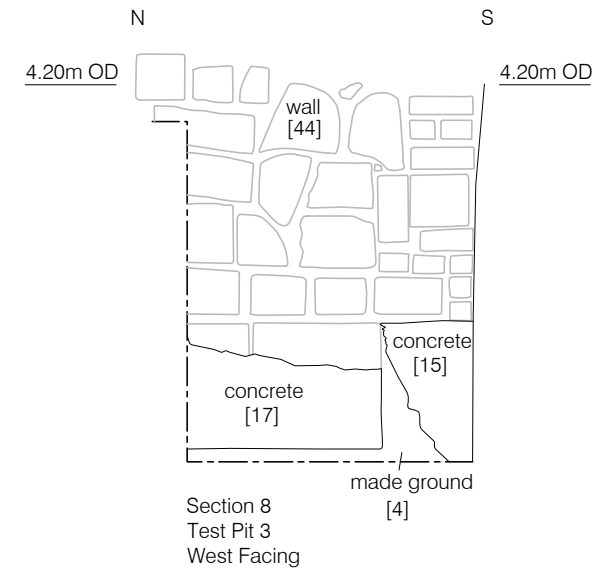
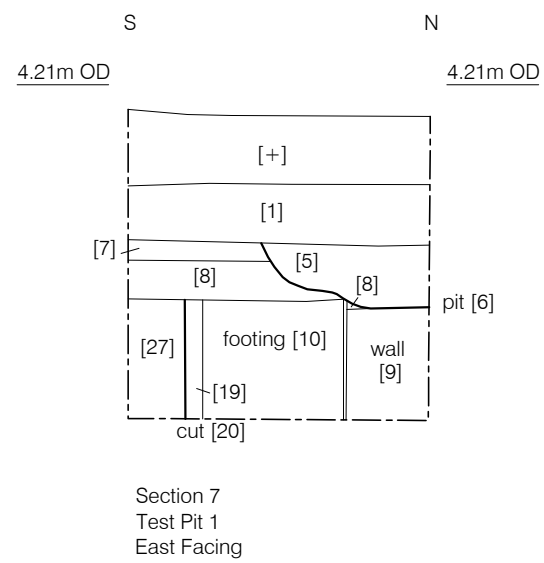
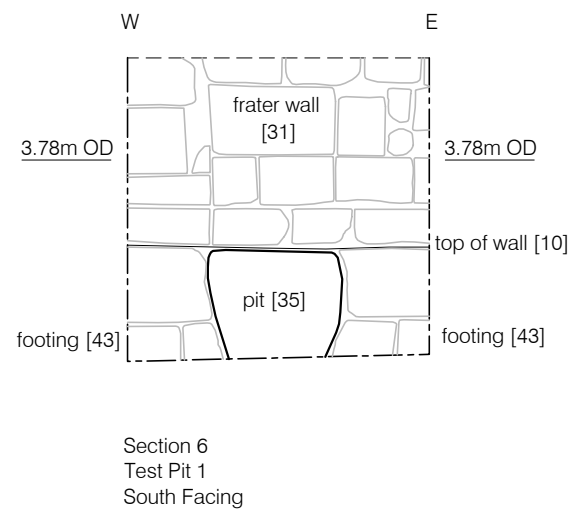
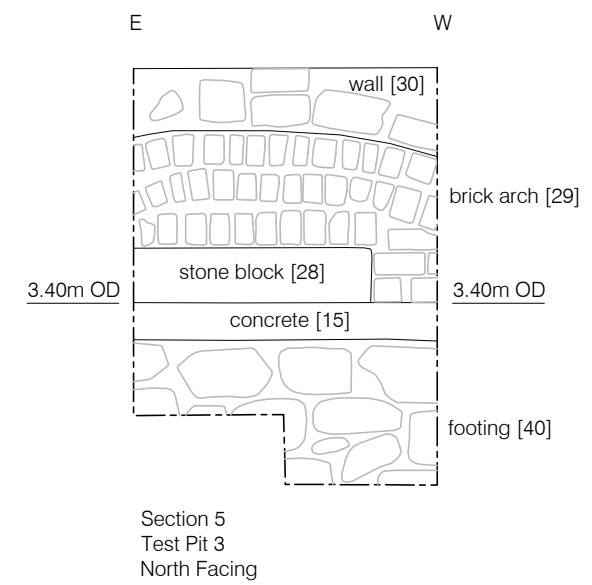
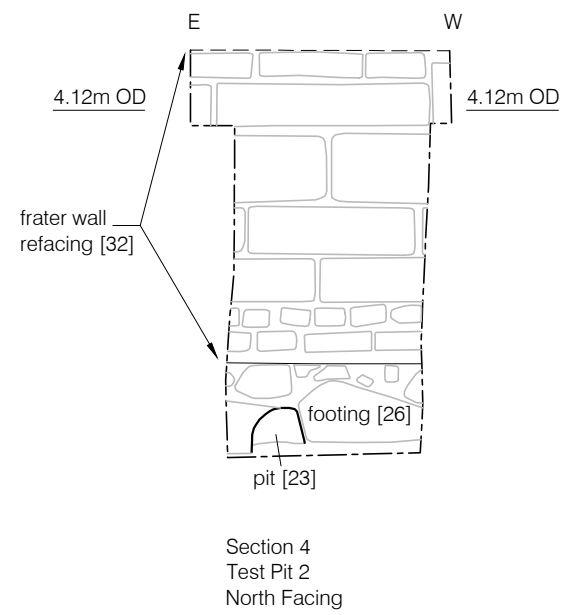
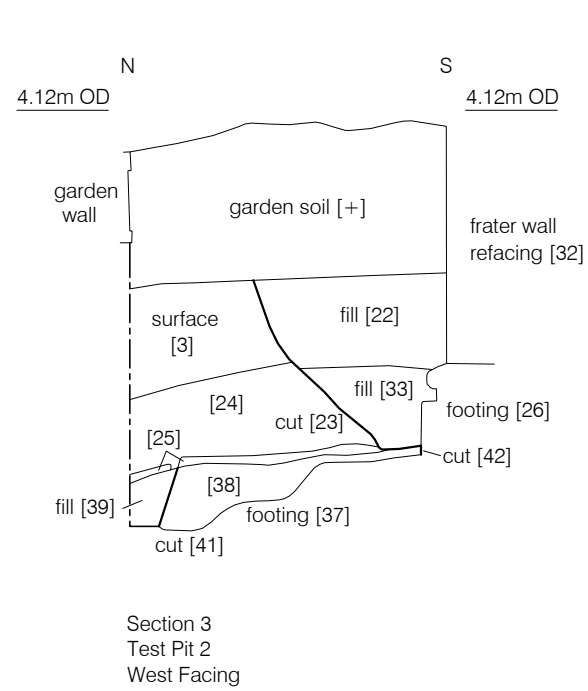


Figure 3
Test Pit Plans
1:25 at A4

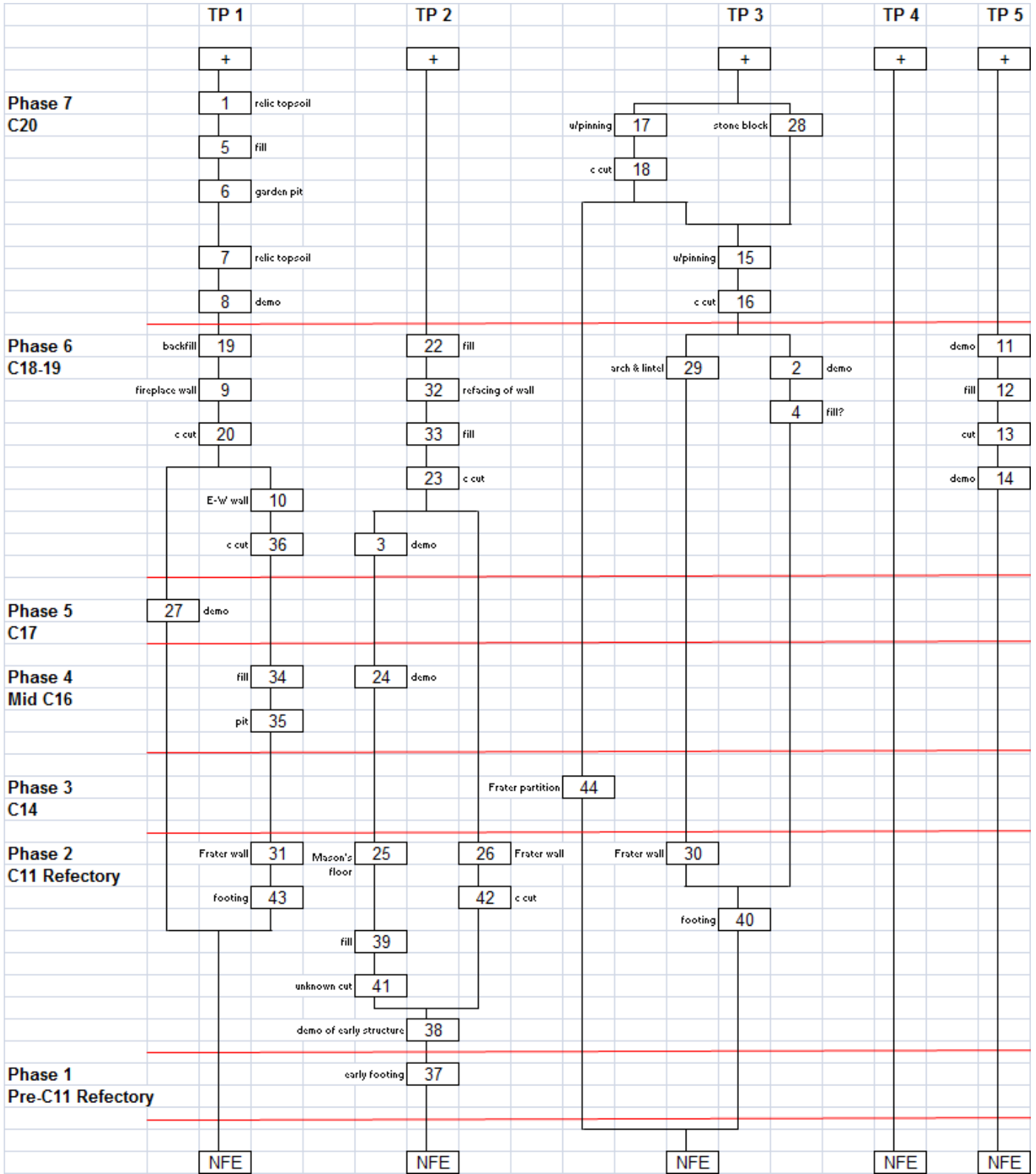


APPENDIX 1: CONTEXT INDEX

Site Code	Context	Trench	Plan	Section	Type	Description	NS	EW	Depth	High	Low	Pot Date	CBM Date	Phase
WSA14	1	TP1		S.7	Layer	Garden soil	1.000	1.000	0.210	3.89	3.88	Mid 19th	1666-1900	7
WSA14	2	TP3		S.1, S.2	Layer	Mortar surface	1.000	1.000	0.040	3.47	3.47		1060-1700	6
WSA14	3	TP2		S.3	Layer	Mortar surface	1.080	1.020	0.360	3.56	3.53		1700-1850	6
WSA14	4	TP3		S.1, S.2	Layer	Made ground	1.000	1.000	0.360	3.43	3.43	1580-1700	1480-1700	6
WSA14	5	TP1		S.7	Deposit	Fill of [6]	0.560	1.000	0.250	3.71	3.71		1700-1900	7
WSA14	6	TP1	6	S.7	Cut	Pit	0.560	1.000	0.250	3.71	3.46			7
WSA14	7	TP1		S.7	Layer	Garden soil	1.000	1.000	0.070	3.71	3.69		1770-1900	7
WSA14	8	TP1		S.7	Layer	Mortar surface	1.000	1.000	0.120	3.63	3.62	1630-1700		7
WSA14	9	TP1	9	S.7	Masonry	Northwest-southeast aligned wall	1.000	0.320	0.500	3.47	3.47		1800-1950	6
WSA14	10	TP1	10	S.7	Masonry	East-west aligned footing	1.020	0.340	0.520	3.50	3.50		1700-1850	6
WSA14	11	TP5		S.10	Layer	Trample	0.600	0.620	0.020	3.42	3.42		1480-1850	6
WSA14	12	TP5	TP5	S.10	Deposit	Fill of [13]	0.600	0.400	0.160	3.40	3.40		1630-1850	6
WSA14	13	TP5	TP5	S.10	Cut	North-south aligned linear cut	0.600	0.400	0.160	3.40	3.24			6
WSA14	14	TP5	TP5	S.10	Layer	Made ground	0.600	0.220	0.160	3.40	3.40		1480-1900	6
WSA14	15	TP3	TP3	S.1, S.5	Masonry	Concrete underpinning to the north	0.290	1.000	0.250	3.40	3.40			7
WSA14	16	TP3	TP3	S.1	Cut	Cut for (15)	0.290	1.000	0.250	3.40	3.15			7
WSA14	17	TP3	TP3	S.2	Masonry	Concrete underpinning to the east	0.720	0.280	0.250	3.32	3.23			7
WSA14	18	TP3	TP3	S.2	Cut	Cut for (17)	0.720	0.280	0.250	3.32	3.05			7
WSA14	19	TP1	20	S.7	Deposit	Fill of [20]	1.020	0.420	0.500	3.47	3.46			6
WSA14	20	TP1	20	S.7	Cut	Construction cut for (9)	1.020	0.420	0.500	3.47	2.97			6
WSA14	21	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID
WSA14	22	TP2		S.3	Deposit	Upper fill of [23]	0.640	0.650	0.310	3.58	3.58	1600-1650	1450-1700	6
WSA14	23	TP2	TP2	S.3	Cut	Construction cut for (32)	0.640	0.650	0.580	3.58	3.02			6
WSA14	24	TP2		S.3	Layer	Demolition layer	0.820	0.750	0.210	3.29	3.17	1480-1600	1630-1700	4
WSA14	25	TP2	TP2	S.3	Layer	Layer of crushed chalk	0.680	0.780	0.040	3.01	2.92			2
WSA14	26	TP2	TP2	S.4	Masonry	East-west aligned footing	0.200	0.650	0.290	3.29	3.00		1060-1600	2
WSA14	27	TP1		S.7	Layer	Mortar layer	0.200	0.200	0.400	3.50	3.50		1666-1900	5
WSA14	28	TP3		S.5	Masonry	Stone block	?	0.780	0.180	3.53	3.53			7

Site Code	Context	Trench	Plan	Section	Type	Description	NS	EW	Depth	High	Low	Pot Date	CBM Date	Phase
WSA14	29	TP3		S.5	Masonry	Brick arch	?	1.000	0.550	3.95	3.92		1770-1940	6
WSA14	30	TP3		S.5	Masonry	East-west aligned stone wall	?	1.000	0.280	4.18	4.18		1100-1500	2
WSA14	31	TP1		S.6	Masonry	North wall of the frater	?	1.000	1.000	4.11	4.11		1100-1500	2
WSA14	32	TP2	TP2	S.4	Masonry	Refacing of south wall of frater	0.150	0.860	1.040	4.32	3.28		1770-1940	6
WSA14	33	TP2		S.3	Deposit	Lower fill of [23]	0.440	0.650	0.250	3.27	3.27			6
WSA14	34	TP1			Deposit	Fill of [35]	0.270	0.450	0.370	3.49	3.47			4
WSA14	35	TP1	35	S.6	Cut	Pit	0.270	0.450	0.370	3.49	3.12			4
WSA14	36	TP1	36		Cut	Construction cut for (9)	0.320	1.000	0.500	3.47	2.97			6
WSA14	37	TP2	37		Masonry	East-west aligned footing	0.930	0.750	0.240	3.00	2.76		1060-1700	1
WSA14	38	TP2		S.3	Layer	Demolition layer	0.680	0.220	0.320	3.01	2.95			2
WSA14	39	TP2		S.3	Layer	Dump layer	0.280	0.540	0.380	2.94	2.94			2
WSA14	40	TP3		S.5	Masonry	East-west aligned footing	?	1.000	0.600	3.28	3.28		1060-1600	2
WSA14	41	TP2	41	S.3	Cut	Unknown function	0.280	0.540	0.380	2.94	2.56			2
WSA14	42	TP2		S.3	Cut	Construction cut for (26)	?	0.540	0.040	3.01	2.97			2
WSA14	43	TP1		S.6	Masonry	Footing below (31)	?	1.000	0.370	3.49	3.49			2
WSA14	44	TP3		S.8	Masonry	14th century wall	1.000	?	0.940	4.20	4.20			3

APPENDIX 2: SITE MATRIX



APPENDIX 3: POTTERY ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited

Introduction

The post-Roman pottery assemblage consists of thirteen sherds, representing 13 estimated number of vessels (ENV) and weighing 581g. The pottery dates to the medieval and post-medieval periods. The condition of the pottery is good and comprises sherd material and a good proportion of the material could be assigned to a form type and this all indicates rapid deposition after breakage. The pottery was recovered from five contexts.

Spot dating index

Context [1], spot date: Mid 19th century

- Yellow ware with slip decoration (YELL SLIP), 1820-1900 1 sherd, 1 ENV, 3g, form: bowl
- Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900 1 sherd, 1 ENV, 3 g, form: unidentified

Context [4], spot date: 1580-1700

- Frechen stoneware (FREC), 1550-1700 1 sherd, 1 ENV, 21g, form: rounded jug
- London-area post-medieval redware (PMR), 1580 -1900 1 sherd, 1 ENV, 30g, form: unidentified
- Surrey-Hampshire border whiteware with clear (yellow) glaze (BORDY, 1550 -1700 1 sherd, 1 ENV, 2g, form: unidentified
- Surrey-Hampshire border whiteware with green glaze (BORDG), 1550 -1700 1 sherd, 1 ENV, 2g, form: unidentified

Context [8], spot date: 1630-1700

- Metropolitan slipware (METS), 1630-1700 1 sherd, 1 ENV, 1g, form: unidentified

Context [22], spot date: 1600-1650

- London tin-glazed ware with blue- or polychrome-painted decoration and external lead glaze (Orton style A) (TGW A), 1570-1650 1 sherd, 1 ENV, 13g, form: charger

Context [24], spot date: 1480-1600

- Kingston-type ware (KING), 1240 -1400 2 sherd, 2 ENV, 411 g, form: jug

- London-type ware (LOND), 1080 -1350 1 sherd, 1 ENV, 86g, form: rounded jug
- London-area early post-medieval redware (PMRE), 1480 -1600 1 sherd, 1 ENV, 5g, form: unidentified
- London-area post-medieval slipped redware with green glaze (PMSRG), 1480 - 1650 1 sherd, 1 ENV, 4g, form: unidentified

Significance, potential and recommendations for further work

The pottery has some significance at a local level and the pottery is found as types and forms frequently found in the London region although the material occurs in small groups without much meaning. The main potential of the pottery is to date the contexts it was recovered from. There are no recommendations for further work and should a publication report be required, then it is suggested that the information is taken from this report.

APPENDIX 4: GLASS ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited

Introduction

The glass assemblage consists of seven fragments dating to the late medieval and post-medieval periods. The condition of the glass is fairly good and comprises sherd material and the majority of the material could be assigned to a form type and indicates fairly rapid deposition after breakage, although some material is residual. The glass was recovered from four contexts.

Spot dating index

Context [1], spot date: 19th-20th century

- Window glass: one fragment of fairly thick walled, clear soda glass manufactured by an unidentified technique. 19th-20th century

Context [3], spot date: 19th-20th century

- Window glass: one fragment of thin walled, clear soda glass manufactured by an unidentified technique. 19th-20th century

Context [4], spot date: late 18th-19th century

- Window glass: two fragments of natural, clear glass with a pale green tint, ?cylinder manufactured with nibbling along one edge. Weathered. Late medieval to early post-medieval.
- Cylindrical phial: one base fragment of clear soda glass, free-blown. Late 18th-19th century

Context [27], spot date: 1630-1700

- Window glass: two fragments of thin walled, clear soda glass manufactured by an unidentified technique. 19th-20th century

Significance, potential and recommendations for further work

The glass has little significance at a local level and consists of rather mundane material. The main potential of the glass is to date the contexts it was recovered from. There are no recommendations for further work on the glass and should a publication report be required, then it is suggested that the information is taken from this report.

APPENDIX 5: CERAMIC AND STONE BUILDING MATERIAL ASSESSMENT

By Berni Sudds (ceramic building material) and Dr Kevin Hayward (stone and mortar), Pre-Construct Archaeology Limited

Introduction

The ceramic and stone building material recovered from site is catalogued and provisionally dated below in Table 1. The assemblage is comprised of brick, stone and mortar samples taken from in-situ masonry and fragments of loose brick and tile retrieved from the test pits.

The assemblage totals 2 boxes and brick samples taken for dating.

Methodology

The material was examined under magnification (x20) and is described and quantified by number and weight (loose material only). A date range for each fragment is given in addition to a considered date of deposition. The assemblage has been recorded using the London system of classification. A fabric number is allocated to each object, specifying its composition, form, method of manufacture and approximate date range. Examples of the fabrics can be found in the archives of PCA and/or the Museum of London.

Catalogue, Typology, Quantification and Dating

Context	Fabric	Form	No. frag	Wg	Comments	Date range	Context considered date
U/S	1810	Floor tile	1	116	Decorated Penn floor tile. Eames no.2354.	1330 – 1390	-
1	3032nr3034 2271 2276	Brick Peg tile Peg tile	1 1 2	37 46 49	Unfrogged?	1666 – 1900 1180 – 1500 1480 – 1900	1666 – 1900
2	3101	Mortar			White lime and sand.	1060 – 1700	1060 – 1700
3	3101	Mortar			Grey	1700 – 1850	1700 – 1850
4	2276	Peg tile	2	304	White lime and sand mortar. Early post-medieval?	1480 – 1900	1480 - 1700
5	3032nr3034 2586?	Brick Peg tile	1 1	182 10	Hard, grey-black mortar. Sandy brickearth fabric nr.3033	1666 – 1900 1180 – 1800	1700 – 1900
7	3498 2271 2586 2276	Brick Peg tile Peg tile Peg tile	1 1 2 1	103 20 169 79	Gaul brick 1x heavily burnt to upper surface. 1x white lime and sand mortar. Partially burnt. White lime and sand mortar.	1770 – 1900+ 1180 – 1500 1400 – 1700 1480 – 1700	1770 -1900+
9 [M]	3035 Late 3033 3261	Brick Brick Brick	1 1 1		Frogged. 223x110x65mm. 68mm. Fireclay brick.	1770 – 1940 1800 -1900+ 1800 – 1950	1800 – 1950

Context	Fabric	Form	No. frag	Wg	Comments	Date range	Context considered date
					110x65mm.		
10 [M]	3033	Brick	1		Unfrogged. Uneven base. Reused more than once. Pink mortar over broken edge and later grey mortar.	1450 – 1700	1700 – 1850 (on mortar)
11	2276 3101	Peg tile Mortar	1	250	Grey.	1480 – 1900 1700 – 1850	1480 – 1850
12	2279	Pantile	1	39		1630 – 1850	1630 – 1850
14	2586	Peg tile	1	38	Re-used. Coarse moulding sand.	1180 – 1500	1480 – 1900
	2276	Peg tile	1	167		1480 – 1900	
22	1810	Floor tile	1	256	Decorated Penn floor tile. No exact match. Lion passant? Nr. Eames no.1771/1774.	1330 – 1390	1450 -1700+
	2894	Floor tile	1	135	Decorated Penn floor tile. No exact match. Originally part of a four-tile design, geometric, floral/ foliate. Similar to Eames no.2841	1330 – 1390	
	3498	Floor tile	1	632	Plain, unglazed thick floor tile. Reused. Thin sandy example. Pre 1650 but reused.	1060 – 1500	
	3046	Brick	1	408	Medium moulding sand. White lime and sand mortar to all fragments of brick, roof tile and undecorated floor tile.	1450 – 1650	
	2271nr2586	Peg tile	1	94		1400 – 1600	
	3101	Mortar				1060 – 1700	
24	2199	Floor tile	1	376	Decorated Westminster floor tile. Design W133. 108x107x22mm.	1225 – 1275	1630 -1700+
	2271	Peg tile	3	197	Medium- coarse moulding sand. 1x reused. 1x glaze splashes.	1180 – 1500	
	2586	Peg tile	4	919	3x fragments from same tile. Early post-medieval tile and white lime and sand mortar.	1480 – 1700	
	2279v	Pantile	1	385	Fairly coarse variant. White lime and sand.	1630 – 1850	
	3101	Mortar				1060 – 1700	
26 [M]	3105	Stone	1		Kentish ragstone. Medieval?	50 – 1600	1060 – 1600
27	3032	Brick	1	73	Nr.3034.	1666 – 1900	1666 – 1900
29 [M]	3107	Stone	1		Reigate stone.	1100 -1500+	1770 -1940+
	3032	Brick	1		Nr. 3034.	1666 – 1900	
	3035	Brick	1			1770 – 1940	
30 [M]	3107	Stone	1		Reigate stone.	1100 -1500+	1100 -1500+
	3109	Stone	1		Taynton stone.		
31 [M]	3107	Stone	1		Reigate stone.	1100 -1500+	1100 -1500+
	3109	Stone	1		Taynton stone.		
	3119	Stone	1		Caen stone.		
32 [M]	3110	Stone	1		Portland stone, Whit	1630 – 1900	1770 – 1940

Context	Fabric	Form	No. frag	Wg	Comments	Date range	Context considered date
	3035	Brick	1		Bed Burnt.	1770 – 1940	
37 [M]	3101	Mortar			Off-white lime and sand mortar containing chalk and gravel.	1060 – 1700	1060 -1700+
40 [M]	3116	Stone	1	500	Chalk rubble, medieval?	1060 – 1600	1060 – 1600

Discussion

The material recovered ranges in date from the 11th to the 20th century, although the medieval fragments are either re-used or re-deposited in much later interventions.

The medieval assemblage is comprised of reused stone building rubble and loose floor and roof tile. The building stone is comprised of Kentish ragstone, Reigate stone, chalk, Caen stone and Taynton stone, types commonly utilised in the broader Abbey complex (Hayward 2013). They represent freestones frequently exploited at Westminster, the first four as ashlar material or rubble in the medieval walls, and the Taynton limestone for architectural elements and mouldings. Here they appear to have been reused as general building rubble.

A small number of decorated and unglazed floor tiles were also recovered residually. These include a 13th century Westminster example depicting a stylised flower within a circle (W133). Another example of this type, now held at the British Museum, was originally part of the Muniment Room floor at Westminster (Betts 2002, 64). Three decorated Penn tiles, dating to the 14th century, were also recovered, including a segmented, geometric flower ([U/S]), a further geometric floral or foliate motif forming one of a four-tile design ([22]) and a heraldic tile ([22]). The latter is incomplete but appears to depict a lion passant. Finally, an unusual thick unglazed floor tile was recovered, also from layer [22]. It is similar in form and fabric to the 12th century 2273 floor tiles uncovered during investigations adjoining the Cellarium (Hayward 2013), although those examples had a dark-brown plain glaze.

The roof tile is typical of that recovered elsewhere within the Abbey and more broadly across medieval London comprised of fine and sandy local types (fabrics 2271 and 2586).

The post-medieval assemblage includes a number of brick samples and a single stone sample taken from in-situ masonry and a small assemblage of loose roof tile. The bricks used, and in some cases re-used, in renovation works are common to the London area. Wall [10] and layer [22] contained the earliest types identified in the form of two pre-Great Fire reds (3033 and 3046) but both demonstrate evidence of re-use. Post-Great fire purple bricks were recorded in wall [29] and as fragments from contexts [1], [5] and [27]. The additional use of yellow London stocks (3035) in wall [29], however, would suggest construction post dated c.1770. London stocks were also recorded in walls [32], along with

grey Portland freestone (Whit Bed), and in wall [9]. A fireclay brick (3261) was also sampled from wall [9] dating to the 19th or 20th century. A further late brick was recovered loose in context [7] in the form of a Victorian or later white Gault.

The remaining post-medieval assemblage is comprised of roof tile, predominantly of the peg type but also including a couple of pantiles commonly used during the later 17th and 18th century. As with the earlier roof tile the fabrics can be well-paralleled, comprised of local fine and sandy types (2276 and 2586). Although a relatively small group, a notable proportion of the peg tile is likely to be of late medieval or early post-medieval date.

Recommendations

The assemblage is typical of both the immediate Abbey complex and more broadly of London and although much is likely re-deposited or re-used further analysis should include the publication of the plain and decorated floor tiles.

References

- Betts, I.M. (2002). *Medieval "Westminster" floor tiles*. MoLAS Monograph 11.
- Hayward, K. M. J., 2013. 'Stone Assessment' in P. Jorgensen 'An Archaeological Excavation of the Cellarium and Adjacent Spaces, Westminster Abbey, London', Pre-Construct Archaeology Limited unpublished assessment report.

APPENDIX 6: METAL FINDS ASSESSMENT

By Märit Gaimster, Pre-Construct Archaeology Limited

Introduction

Four metal finds were recovered from the evaluation, together with a small piece of tap slag. Besides two iron nails, they include a tinned copper-alloy upholstery pin with a short shaft (sf 1) and part of a plain copper-alloy frame or mount, perhaps from a small oval picture or similar.

Quantification and Dating

context	sf	description	pot date	recommendations
1		tap slag; 25 x 40mm	mid-19th century	discard
3	1	copper-alloy curved mount or frame; fragment only with partly retained angled edges for fixing; W 7mm; L 80mm+	n/a	
4		tinned copper-alloy upholstery pin with domed head; diam. 12mm	1580-1700	
12		iron nail with small rectangular head; L 90mm	n/a	
34		iron nail; fragment of shaft only	n/a	discard

Significance of the finds and recommendations for further work

The finds are not very diagnostic, and it is unlikely they will require further analysis. Were the site to be published, it is recommended the two copper-alloy objects are included in that report. The piece of tap slag and the incomplete nail can be discarded.

APPENDIX 7: ANIMAL BONE ASSESSMENT

By Kevin Rielly, Pre-Construct Archaeology Limited

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

Description of faunal assemblage

A total of 117 bones were hand recovered from 6 contexts, with the majority arising from deposits [3] and [34] (see Table 1). All of the bones from this evaluation were recovered by hand and were generally well preserved and only minimally fragmented.

Context:	3	7	12	22	24	34	Total
Species							
Cattle	2					3	5
Cattle-size	3	1				6	10
Sheep/Goat	7		1	1	1	5	15
Pig	1						1
Sheep-size	13		2	1		39	55
Rabbit						2	2
Rat						1	1
Small mammal						1	1
Chicken						18	18
Chicken-size						6	6
Goose						1	1
Turkey						1	1
Fish						1	1
Grand Total	26	1	3	2	1	84	117

Table 1: Counts of hand collected animal bone in each context.

Discussion

Only a small proportion of these deposits provided dating evidence i.e. [3] with a piece of relatively late window glass and a single shard dating to the early part of the 17th century from [22]. The late date for [3] is confirmed by the presence of a notably large cattle astragalus, possibly representing an improved 'type', these entering the London meat

markets from the latter part of the 18th century (Rixson 2000, 215). Bones from similarly 'large' cattle were also found in deposits [7] and [34]. This latter deposit also provided a near complete femur of a turkey, suggesting a date later than the approximate introduction of this species in the mid 16th century (after Yalden and Albarella 2009, 209). Other potential 'later' traits include the presence of severe rodent gnawing on some of the bones from deposit [34], such damage tending to occur solely in later post-medieval collections (see Rielly in prep a).

The two major collections do appear to be rather late in the sequence, this perhaps also indicated by the better representation of sheep/goat and sheep-size bones, comparable in this respect to the later collections found at the Cellarium (Rielly in prep b). While the quantity of bones recovered from this site and from these two collections in particular does not amount to a major assemblage, there is perhaps some potential for later work, concentrating perhaps on the latter few centuries of Abbey usage.

References

- Rielly, K, in prep a The animal bones, in Douglas, A, Excavations at Bermondsey Abbey, PCA Monograph
- Rielly, K, in prep b The animal bones, in P, Jorgensen Excavations at the Cellarium, Westminster Abbey
- Rixson, D, 2000 *The History of Meat Trading*, Nottingham University Press
- Yalden, D, and Albarella, U, 2009 *The History of British Birds*, London

APPENDIX 8: OASIS FORM

OASIS ID: preconst1-178436

Project details

Project name	Westminster Abbey Song School Relocation Project: An Archaeological Evaluation
Short description of the project	In April of 2014 Pre-Construct Archaeology Ltd undertook the excavation of five test pits within the Receiver General's garden at No. 2 The Cloister, Westminster Abbey, London. The courtyard garden is contained entirely within the shell of the 11th century monastic refectory. The walls defining the site to the north and south are of 11th century date while the wall forming the eastern boundary was a 14th century partition and the western boundary was defined by the east wall of the Receiver General's house, which was of 18th century date. The archaeological investigation was carried out in order to inform on the nature and extent of the footings for the bounding walls as well as to determine the archaeological potential and level of survival within the site. During the investigation it was discovered that at least part of the west end of the south wall of the 11th century refectory stood on an earlier footing. The investigation also uncovered the level of the foundation offset and the junction between the walls and footings of the refectory walls, which allowed the 11th century floor level to be estimated at between 3.29m OD and 3.49m OD. Evidence for the partial demolition of the refectory in the mid-16th century was also recorded as were deposits and structural remains pertaining to the successive redevelopment of the site in the 18th, mid-19th and mid-20th century.
Project dates	Start: 21-04-2014 End: 25-04-2014
Previous/future work	No / Yes
Any associated project reference codes	WSA14 - Sitecode
Any associated project reference codes	13/11075/FULL - Planning Application No.
Type of project	Field evaluation
Site status	World Heritage Site
Current Land use	Other 5 - Garden
Monument type	WALL Medieval
Monument type	WALL Post Medieval
Monument type	PIT Post Medieval
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	CBM Medieval
Significant Finds	CBM Post Medieval
Methods & techniques	"Test Pits"
Development type	Large/ medium scale extensions to existing structures (e.g. church, school, hospitals, law courts, etc.)
Prompt	Planning condition

Position in the planning process After full determination (eg. As a condition)

Project location

Country England
 Site location GREATER LONDON CITY OF WESTMINSTER WESTMINSTER No.
 2 The Cloister, Westminster Abbey
 Postcode SW1P 3PA
 Study area 93.00 Square metres
 Site coordinates TQ 3002 7943 51.4983377649 -0.126669246723 51 29 54 N 000 07
 36 W Point
 Lat/Long Datum Unknown

Project creators

Name of Organisation Pre-Construct Archaeology Limited
 Project brief originator Consultant
 Project design originator Chris Mayo
 Project director/manager Chris Mayo
 Project supervisor Paw Jorgensen
 Type of sponsor/funding body Church
 Name of sponsor/funding body Dean and Chapter of Westminster Abbey

Project archives

Physical Archive recipient Westminster Abbey Museum
 Physical Archive ID WSA14
 Physical Contents "Animal Bones","Ceramics","Glass","Metal","other"
 Digital Archive recipient Westminster Abbey Museum
 Digital Archive ID WSA14
 Digital Contents "Stratigraphic"
 Digital Media available "Images raster / digital photography","Images
 vector","Spreadsheets","Text"
 Paper Archive recipient Westminster Abbey Museum
 Paper Archive ID WSA14
 Paper Contents "Stratigraphic"
 Paper Media available "Context sheet","Matrices","Photograph","Plan","Report","Section"

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)
 Title Westminster Abbey Song School Relocation Project: An
 Archaeological Evaluation
 Author(s)/Editor(s) Jorgensen, P.
 Other bibliographic details PCA R11732
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