

PHASE C

ROYAL CLARENCE YARD

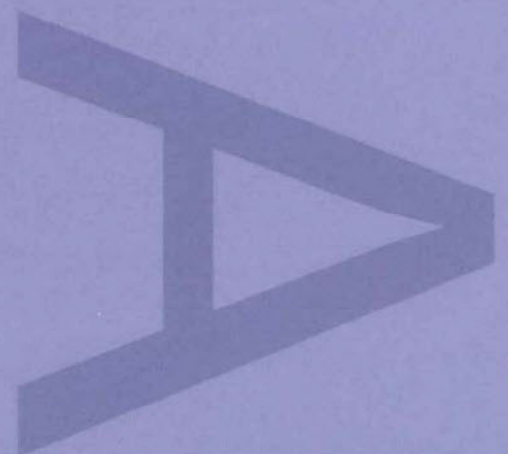
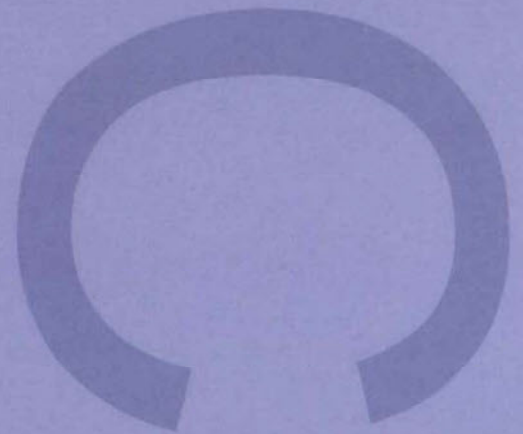
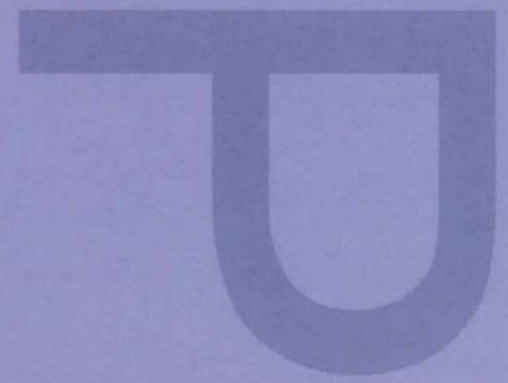
GOSPORT

HAMPSHIRE

ARCHAEOLOGICAL EXCAVATION

B1790D

APRIL 2010



PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

PHASE C
ROYAL CLARENCE YARD
GOSPORT
HAMPSHIRE

EXCAVATION

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**Assessment of an Archaeological Excavation at Phase C at Royal
Clarence Yard, Gosport, Hampshire**

Central National Grid Reference: SU 61770 00585

Site Code: B1790D

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Pre-Construct Archaeology Ltd. April 2010

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1 ABSTRACT

- 1.1 Archaeological excavations were conducted by Pre-Construct Archaeology Ltd. at several sites within Royal Clarence Yard, Gosport, Hampshire, in advance of their redevelopment in to residential and commercial properties (Phase C, Fig.1). The sites are part of a wide-ranging development by Berkeley Homes incorporates Phase C (Fig. 2) as well as the recent works completed at Phases D1 and D2/D3¹. Gifford, on behalf of Berkeley Homes (Southern) Ltd., commissioned the work.
- 1.2 The investigations were undertaken between 16th July 2007 and 17th April 2009. The works comprised test trenches designed to evaluate any surviving remains, followed by a 'strip and map' style excavation of the footprints of new buildings.
- 1.3 Substantial structural remains were encountered during the test trenching across the site in July and August 2007. These suggested the presence of several phases of building in a good state of preservation. Initial observations of what appeared to be a large truncation recorded by an absence of archaeological remains in the northwest of the Phase C area actually represented the backfilling of a large reservoir with both historical and modern demolition material.
- 1.4 The area revealed that natural stratigraphy was represented by well-compacted sandy-gravels and silty-clays that mirrored the topography of the site by sloping gently from west-east towards the shoreline. Buildings associated with the naval Victualling Yard were recorded as being constructed through and upon this material. Several phases of building relating to the storage of provisions for the navy, particularly beer from the earliest breweries established by Captain Henry Player at the end of the 17th century, were observed. Dominant amongst later foundations were those of a large storehouse that was built to represent a mirror image of the extant granary, mill and bakery complex that stands to the north. This was built upon land reclaimed from the sea and marked a period of increased importance and expansion of the site in the late 18th century as Gosport became a key provider of provisions for ships leaving Portsmouth. Although the naval beer ration ceased in the 1830s, the purpose-built stores were retained and amended to store other materials. A large structure was built to the west of this building for the storage of salt meat. The space between the two large buildings would eventually be joined to create a covered storage area. The Luftwaffe bombing campaign of the Second World War caused considerable damage to this area, with the destruction of this large building and the later storehouse built to its west. In the 1960s, a new cold store building was

¹ Humphrey, R. (2008) *Assessment of an Archaeological Excavation at Phases D1 and D2/D3 at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report

constructed over the area for the storage of frozen goods for the navy. This was demolished prior to the commencement of archaeological works.

- 1.5 This phase of works follows previous archaeological investigations carried out by Gifford, PCA and other archaeological contractors at the historic Victualling Yard. The most significant of these were the works completed in the spring and summer of 2007 for the D1 and D2/D3 phases of the site's redevelopment. Structures recorded from these phases related to the earliest development of the site into a brewery and the evolution of this industry throughout the 18th and 19th centuries. Additional works by Cotswold Archaeology Ltd were also carried out in the Phase C area, the results of which are relevant to these investigations.
- 1.6 Works have been conducted since the completion of the Phase C investigations. These relate to the excavation of a large storm water attenuation tank, a pumping station and the associated service channels that allowed for the containment then expulsion of storm water from the new development into the harbour. These works were situated both to the east of the Phase C area, between the F1 building and the waterfront, as well as the area to the north of the D1 block (at Brewhouse Square). An assessment report for these works is forthcoming².
- 1.7 This report presents the results of the investigations in the Phase C area, and explores the potential of the results to answer archaeological research objectives specific to the site.

² Humphrey, R. (forthcoming) *Assessment of an Archaeological Excavation at the Stormwater Attenuation Tank at Brewhouse Square at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report

2 INTRODUCTION

- 2.1 Archaeological strip, map and sample excavations were undertaken by Pre-Construct Archaeology Ltd. (hereafter referred to as PCA) at several areas of Royal Clarence Yard, Gosport, Hampshire during 2007 and 2008. They formed part of an ongoing redevelopment of the historic Victualling Yard, a process that has seen the site subdivided for construction purposes. This report concerns the development of Phase C. PCA was commissioned by Gifford on behalf of the client, Berkeley Homes (Southern) Ltd. The site is centred on National Grid Reference SU 61770 00585.
- 2.2 A historic study of Royal Clarence Yard, a naval victualling yard complex, and covering the entire Phase C area, was undertaken in 2002³. Once redevelopment had reached the Phase C area, a tender specification for archaeological evaluation for the area was prepared by Gifford⁴, a WSI issued by PCA⁵, and evaluation test trenching followed in July and August 2007. The trenches were positioned by Gifford to target the presumed location of building foundations predicted by the analysis of historical cartographic sources. These trenches revealed the good survival of structural remains of several phases of building across the area, and these results were presented in an evaluation report issued in March 2008⁶.
- 2.3 The historic study and evaluation work indicated the high likelihood of widespread archaeological remains surviving in a good state of preservation, and a number of areas for potential research; these are listed below (see 3.2.1). Gifford issued a Written Scheme of Investigation for a strip, map and sample excavation to target specific areas of the Phase C area⁷. This made use of a map regression exercise that revealed the intensive use of the site since the early 18th century. It also made predictions regarding the nature of obstructions that could be expected during the investigation, such as the locations of reinforced steel ground beams and piles from the recently demolished Cold Store building.
- 2.4 The Phase C development consists of three blocks (F1, F2 and F3) as well as a number of smaller buildings, stores and car-parking areas. Given the nature of the archaeological remains likely to be encountered, it was agreed between Gifford and

³ Phillpotts, C. (2002) *Royal Clarence Yard and St George's Barracks North Historic Study – Revision D*. Unpublished report

⁴ Gifford tender specification, Gifford, unpublished report R118

⁵ Bradley, T. (2007) *A Written Scheme of Investigation for An Archaeological Evaluation (Phase C) at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd., unpublished report

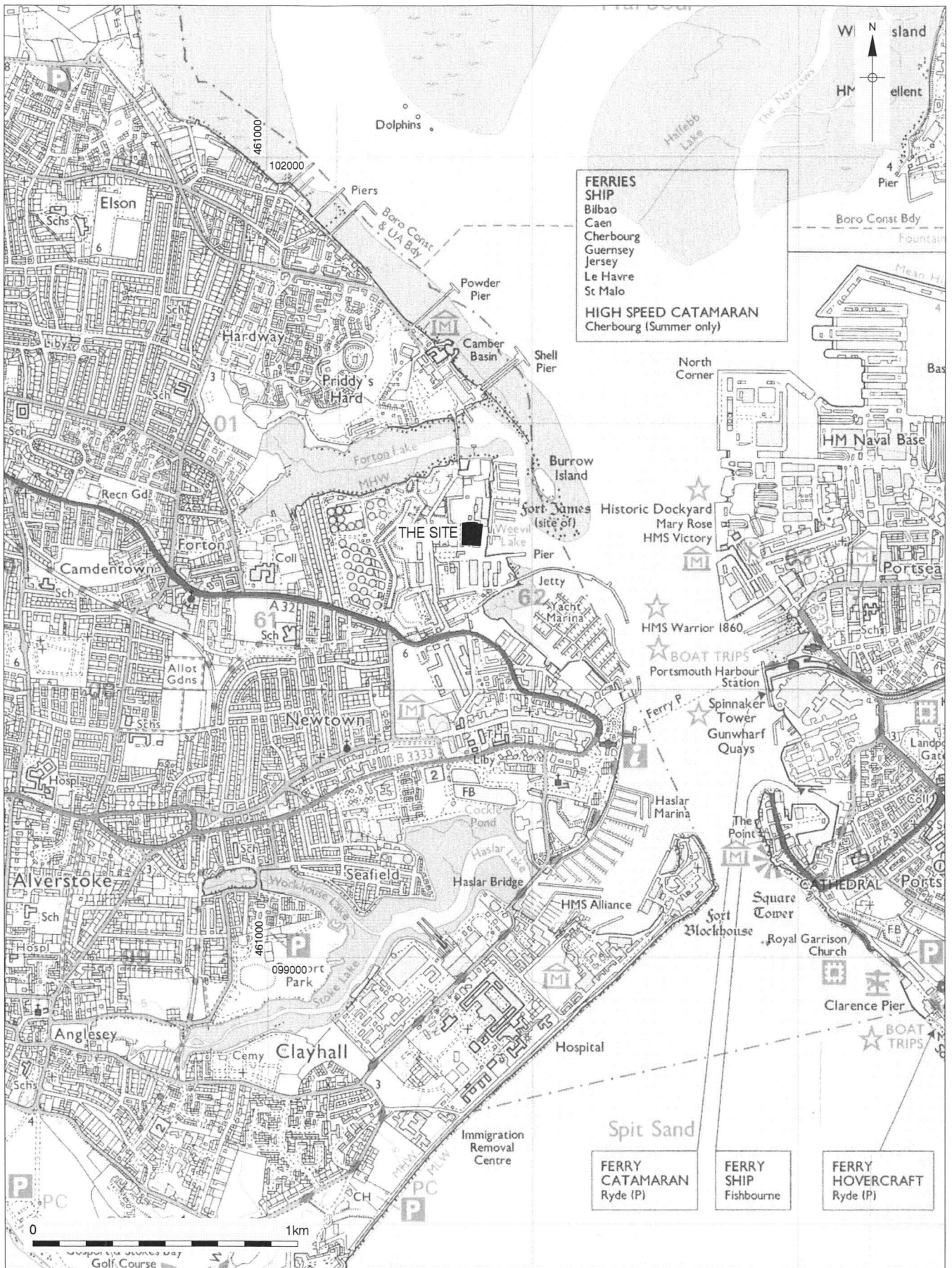
⁶ Humphrey, R. (2007) *An Archaeological Evaluation of land at Royal Clarence Yard, Gosport, Hampshire: Phase C*. Pre-Construct Archaeology Ltd, unpublished report

⁷ Moore, H. & Shelley, A. (2007) *Royal Clarence Yard - Written Scheme of Investigation for a Strip, Map and Sample Excavation of Phase C*. Gifford, unpublished report

Hampshire County Council, acting on behalf of Gosport Borough Council, that a strip, map and sample excavation, aimed at establishing a site-wide stratigraphical and spatial understanding of the archaeology, was the most appropriate method of mitigating the impact to the archaeology of the site. The archaeological works were undertaken in several stages, with the F1 and F2 footprints investigated during January 2008 and the F3 and ancillary building areas in November and December 2008.

- 2.5 Previous to the works by PCA, Cotswold Archaeology Ltd. had undertaken a programme of archaeological excavation immediately to the west and south of Phase C as well as watching briefs in the area known as Flagstaff Green⁸. These works revealed similar archaeological sequences to those recorded by PCA in these investigations.
- 2.6 The Phase C area covers a parcel of land measuring approximately 3597m². It is bordered to east by Portsmouth Harbour, to the south by the remains of a Ministry of Defence yard, to the west by a car-park and yard used by Berkeley Homes and their contractors and to the north by the Granary building, Bakery and North Meadow (Fig. 2).
- 2.7 The project manager for PCA was Tim Bradley, and David Hopkins and Hannah Fluck of Hampshire County Council monitored the works. Richard Humphrey supervised the work. The archaeological consultants were Andy Shelley and Helen Moore of Gifford.
- 2.8 The completed archive, including written, drawn and photographic records, as well as artefactual material, will eventually be deposited with the appropriate repository, Hampshire County Council Museums and Archive Service.

⁸ Cotswold Archaeology (2003) *Royal Clarence Yard, Gosport, Hampshire, Archaeological Excavation Phase Areas B and C and Watching Brief Areas C and D*. Cotswold Report 02109



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Figure 1
 Site Location
 1:20,000 at A4



Figure 2
Trench Location
1:1,000 at A4

3 PLANNING BACKGROUND AND RESEARCH OBJECTIVES

3.1 PLANNING BACKGROUND

- 3.1.1 The design for the investigation reported here fulfils the requirements set out by the Development Plan Framework of Gosport Borough Council Unitary Development Plan (UDP). The following is listed under 'Archaeology and Ancient Monuments' as part of 'Chapter 10 - Built Heritage':

Policy R/BH8

Development will not be permitted which harms nationally important Archaeological Sites, whether scheduled or not, or their setting. Applications likely to affect Archaeological Sites should be accompanied by an assessment of their value, in each case considering the individual merits; and prepared by an appropriately qualified person and approved by the Borough Council in advance of any formal determination of the relevant application. Where preservation is not possible or feasible a planning condition may be imposed requiring a program of investigation and recording to an acceptable standard prior to the commencement of the development.

In addition;

10.34 The Local Plan area contains a number of important and distinctive archaeological sites, many reflecting the area's naval and military heritage over hundreds of years. As well as 'above ground' features, there are a number of 'below ground' remains which may be of local or national importance. However, only a small proportion of sites are protected as Scheduled Ancient Monuments (see Appendix N: Ancient Monuments) and some sites are listed in the Archaeology and Historic Buildings Record (AHBR) maintained by Hampshire County Council. Proposals which involve the carrying out of works to a Scheduled Ancient Monument require Scheduled Monument Consent from the relevant Government department.

10.35 There are likely to be many sites of archaeological significance which have not been identified. Development proposals which may affect archaeological sites and monuments that are not statutorily protected will be carefully assessed to ensure that the impact on such sites is minimised. Where there is evidence, for example from historic maps, that archaeological remains may exist, the Borough Council will require applicants to arrange for the carrying out of a field assessment prior to the application being determined in consultation with the County Archaeologist. Where the physical preservation of archaeological remains is not considered possible or feasible the

Borough Council may require applicants to make provision for investigating and recording. Planning permission may be refused where applicants have not sought to accommodate archaeological requirements.

10.36 On occasion when the presence of archaeological remains only becomes apparent after development has commenced, the Borough Council will seek to negotiate with the applicant to preserve or excavate the remains as appropriate in consultation with the County Archaeologist or other appropriately qualified archaeologist.

10.37 Recent research on the historic town of Gosport has been presented in *An Extensive Urban Survey of Hampshire's and the Isle of Wight's Historic Towns; Gosport* (1999) and is also presented in *Hampshire Rural Settlements: Gosport* (2002). These Hampshire County Council studies provide extensive information on the potential archaeological interest of the immediate Town Centre and will be used to evaluate proposals within that part of the Local Plan area.

4 GEOLOGY AND TOPOGRAPHY

4.1 GEOLOGY

- 4.1.1 The Royal Clarence Yard and St George Barracks North site is centred at NGR 617 105 (1:1250 OS SU61 4 sheets, 1:2500 83.7). Mumby Road bounds the site to the south, the rampart of the Gosport Lines to the west, Portsmouth Harbour to the east and Forton Lake to the north (Fig. 1).

4.2 TOPOGRAPHY

- 4.2.1 The site slopes gently down from the west to the east, to the shores of Portsmouth Harbour. Although it is clear that levels have risen, and that the shoreline has been modified by reclamation, it is likely that present topography mirrors the historic topography. The area of the study appears on geology maps as estuarine alluvial gravels (which are actually silty clays interbedded with gravels), overlying the Bracklesham Bed clays, silts and sands. John Smeaton commented in 1780 that an upper stratum of gravel, generally about nine feet (2.74m) thick, overlay a stratum of impervious blue clay everywhere in the district.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 BACKGROUND

- 5.1.1 The archaeological and historical background for Phase C has been detailed within the Historical Background for Royal Clarence Yard and St George Barracks North⁹. This information, and more, is summarised below.

5.2 PREHISTORIC

- 5.2.1 Bronze Age pottery has been found across the site. Although the formation of the peninsula as we see it today would have occurred as a process of deposition and movement of materials as a result of drifting currents, an estuarine foreshore would have provided an abundant source of both marine and land resources. Communities living in such areas would have readily exploited these. The absence of settlement evidence should therefore be explained not by its non-existence but by lack of research. The establishment of the Victualling Yard in the late 17th century would also have had a destructive effect on any surviving prehistoric archaeology.

5.3 ROMAN

- 5.3.1 Although no Roman finds, features or deposits are located in the immediate vicinity, there is evidence for the use of the shoreline in the wider landscape. At a distance of approximately 8 miles north of the site in the Solent estuary is the fort of Portchester. This was established in the 3rd century and reflects defensive structures that were required to protect the ships and ports of Roman Britain from attack by Saxon pirates that were operating in the English Channel at the time.

5.4 ANGLO-SAXON

Anglo-Saxon finds, features and deposits are not represented in the area of Royal Clarence Yard. As with evidence from prehistoric communities, this is not to say that they are not present in the locality but hints at a paucity of archaeological research concerning such activity.

5.5 MEDIEVAL

- 5.5.1 In the medieval period the area of the site was part of an estate belonging to the Bishop of Winchester and the Priory of St Swithun. In the early 14th century the Bishop's rent revenue from Gosport was in decline because the sea frequently

⁹ Phillpotts, C. (2002) *Royal Clarence Yard and St George Barracks North Historical Study*.

flooded many of the manorial tenants' plots of land. The coastal region of Hampshire suffered badly in the Black Death of 1348-50. By the early 15th century burning and destruction caused by French raiding parties were adding to the economic difficulties of the manor.

- 5.5.2 It is thought that the land of the site was once part of a farm belonging to a person called *Weovill*. The known history of the site opens with the name *Weevil* first appearing on a map of 1665 by John Bursdon. At the eastern edge of the study area an inlet is marked *Weevil wel spring*, but no structures are shown. At this time Gosport was an undefended small town to the south of the spring, but Portsmouth town was surrounded by fortifications. Another map of c.1665 of Portsea Island by de la Fabvolliere (copying Edward Mansell's map of 1626) shows no distinguishing features at the site. However, the northern spur of land adjacent to Forton Lake is shown in more detail, with an inlet and projection visible at the northeast corner.

5.6 POST-MEDIEVAL

- 5.6.1 Portsmouth's growth as a naval port during the medieval and post-medieval period led to complications concerning the supply of goods to ships. During the 17th century, local contractors were used for this purpose, a situation that was not ideal and often resulted in them barely able to keep pace with demand. Indeed, correspondence between the Admiralty and Navy Board (incorporating the Victualling Board) dating from the early 1700s suggests that the premium for space in Portsmouth was beginning to lead to difficulties, particularly concerning space for stores.
- 5.6.2 In c.1668, Sir Bernard de Gomme proposed increasing the defences around Portsmouth and constructing those to protect Gosport. From contemporary cartographic sources, it seems that the extent of these fortifications was not as substantial as was initially planned and that they did not extend so far north as to incorporate the area of Royal Clarence Marina. A mill is also visible on the de Gomme map of 1668 (though not on the Burston plan of 1665), although its exact location is questionable. It is not shown on the Talbot Edwards map of 1716.
- 5.6.3 In the early 18th century, the land surrounding what was to become the Victualling Yard is recorded as being pastures, after becoming strips of cultivated land. Following the House of Commons being made aware of the potential vulnerability of Gosport to attack from the shore, recommendations were made for the extension north of the de Gomme defences. Land was acquired by the Board of Ordnance in 1710 to the north and west of the site although defences would not be constructed for another forty

years. In the meantime, the land was leased back to the Player family for their Bbrewery operations.

- 5.6.4 The site of Flagstaff Green became the centre of the brewery operations that Captain Henry Player established. Inheriting the site in 1685 following the death of John Player, Henry was a naval sea captain with a family history of brewing. He developed the brewery operations on site and in c.1704 built the stylish Weevil House. Although estimated to be a hundred years old in 1783, the structures of Player's Brewery first appear on a Lempriere map dated to 1716. This is also described in a survey of the same year, with elevations drawn of the structures. Listed as component parts of the brewery are a brewhouse, malt lofts, screening rooms for malt, a cooperage, a cooper's house, a coal yard, stables and beer store houses in the brewery, with a large barn, a cattle shed, a cart shed and some small outhouses in the grounds. There were also two wells, one powered by a wind pump and one a horse-driven pump.
- 5.6.5 Captain Player died in 1711. Ownership of the brewery complex was passed over to his widow and in turn, was run by his two daughters and their husbands, each with a contract to supply beer to the Victualling Board of the Navy.
- 5.6.6 The Victualling Yard was enclosed by defensive ramparts when de Gomme's planned lines finally began construction in 1748. The new defences were an added incentive for the Admiralty to purchase the brewery complex from Player's descendants in 1751- the dispersed and cramped nature of suppliers and stores in Portsmouth was leading to problems. Additional brewery buildings were added in 1756 as well as modifications made to the sea defences using oak piles. The New Brewhouse was built in 1757 on the site of the old beerstore. With the death of Lady Clancarty (Henry Player's last surviving relative) in 1758, the Admiralty purchased the rest of the site from her trustees in 1760.
- 5.6.7 Towards the southwest of the Phase C area, a 'T'-shaped building, labelled as 5.15 in Phillpotts's historical background to the site is described as a beerstore and maltloft. This represents one of the earliest buildings of the Victualling Yard and was constructed prior to 1716. Between 1716 and 1758, an extension was made to the north of this building with a long frontage running along the quay. In 1753, the sides of Weevil Creek were revetted with oak piles and land tiles to replace the existing hurdles that were proving ineffective in retaining the shore. The creek was deepened by dredging and the wharf was extended and built in oak. In 1756 an increase in the Navy's demand for beer led the Admiralty to order the construction of an additional brewhouse (5.11 in Phillpotts's historical background), six stores, a wharf and a rolling way. This rolling way led from the brewery to the deep-water channel for the

transportation of barrels to and from ships. The 'New Brewhouse' was built in 1757 on the site of the old beer store and paved in spring 1758. At the same time, a thousand ton capacity reservoir was dug, later becoming enlarged by connecting with the earlier square pond westwards. Further modifications were made in 1779-80.

- 5.6.8 A large storehouse was added onto the northern side of the 'New Brewhouse', known as the 'North Storehouse'. This had to be sufficiently close to the wharves in order to minimise the trouble in loading barrels onto the hoys. It was composed of four long units, built up to the northern limit of the land owned by the Victualling Board. One of the units was raised in height and a floor was added for the storage of malt and hops. Associated with this was the construction of a new stone wharf. This building stood until the 1820s when it was demolished as part of George Ledwell Taylor's reforms to the site, being replaced by a large Salt Meat Store.
- 5.6.9 Development of the cooperage in the 1760s and 1770s focused on the refitting and development of a square that existed as early as the 1650s and is suggested to be a copy of the Victualling Yard seen at Tower Hill, London. To the east of the cooperage, a new phase of development of the yard was underway. A new brewhouse was built in 1782-3 according to the designs of Samuel Wyatt. A celebrated architect of the time, Wyatt often focused on the more 'polite' buildings even though his significance as a pioneer of industrial building should not be overlooked. In 1786, the old Player brewery became damaged by high winds and its demolition was ordered.
- 5.6.10 To complement the new brewery to the south of the Phase C area (excavated in 2007¹⁰), a new two-storey North Storehouse and wharf was built to the east of the 1758 North Storehouse. These were completed in 1783 and measured 91m north to south by 23m wide, being longitudinally divided into three units, each with a separate slated roof. The eastern façade had a slightly projecting centre and end sections. To build the wharf, 2000 loads of gravel were taken from the Common belonging to the Board of Ordnance, to the north of the area.
- 5.6.11 Little development of the yard occurred during the Napoleonic war era. Elsewhere in the country, victualling yards were expanded in an attempt to prevent having all of the Navy's stores located in one place, a decision that led to the decline in a request for the development of the yard in the 1820s. However, the decision was made to transfer all stores from Portsmouth to Gosport.
- 5.6.12 In 1827, the yard was finally remodelled following the intervention of the Duke of Clarence, according to the plans of the Civil Architect to the Victualling Board, George Ledwell Taylor. Rather than being a yard concentrating on beer production, plans

¹⁰ Humphrey, R. (2008) *Assessment of an Archaeological Excavation at Phases D1 and D2/D3 at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report

were made to change the function of structures to include biscuit manufacture and food storage. Expansion of the yard included a certain amount of ground reclamation from the sea and the building of new sea defences. The Rennies built new wharf walls in their present form and position in 1829-30, replacing the stone wharf of the 1770s. Numerous historic drawings indicate that there were structural problems with the quay walls. An office building was erected over the old brewhouse area of the site.

- 5.6.13 In 1828, the Victualling Board inherited new responsibilities, which led to modification to the storehouses in the study area. Wyatt's North Storehouse had its floor raised with shingle and paving to the level of the wharf as well as having a third storey added to it to accommodate goods arriving from Portsmouth. Cast iron columns were introduced to support the new roof, the floor was repaved, wooden roof trusses were removed and replaced and the stone cornice was replaced. These works were also conducted as part of Taylor's reforms and the building was now known as the Miscellaneous or Dry Store. This is described as storing meat, cheese, butter, vinegar, suet, wine and spirits on the ground floor and bread in the new third floor. Following the removal of the 1758 brewhouse and beerstore in 1831, new doors and windows were added to the western side.
- 5.6.14 To the west of the Miscellaneous Store a Salt Meat Store was built in 1830-1 over the sites of the demolished 1758 New Brewhouse and Beerstore, although extending further to the west than the previous structures. In order to build this, the reservoir was backfilled with spoil from the newly constructed South Stores. The Salt Meat Store was a single storey building with four aisles with the interior subdivided into an area for salt meat and medical supplies.
- 5.6.15 During the Crimean war of the mid 19th century, an additional shed area for the storage of beef and pork filled the area between Salt Meat and Miscellaneous Stores. In 1888, this became more permanent by the addition of a corrugated roof and windows inserted at the first-floor level. Development of the yard in the mid 19th century also included the introduction of a railway system, allowing for coal to be transported directly to the yard.
- 5.6.16 Although not much change occurred to the site during the First World War, with the naval supplies operations moved to Scapa Flow, the Second World War saw the site severely damaged by the Luftwaffe bombing campaign. The Salt Meat Store and Miscellaneous Stores were both destroyed and replaced by the 1960s Cold Meat Store, which has been recently demolished.
- 5.6.17 Contamination remediation works in the Phase C area of the site were accompanied by an archaeological watching brief and subsequent excavation, conducted by

Cotswold Archaeology in 2002¹¹. These revealed wall footings from several phases of brewery buildings, the earliest of which dated to the late 17th or early 18th centuries, as well as later 18th-century structures and parts of the 19th-century Salt Meat Store.

¹¹ Cotswold Archaeology (2003) *Royal Clarence Yard, Gosport, Hampshire, Archaeological Excavation Phase Areas B and C and Watching Brief Areas C and D*. Cotswold Archaeology, unpublished report 02109



Figure 3
1716 Map of Henry Player's Brewery Building, showing the approximate location of Phase C Excavation
1:500 at A4

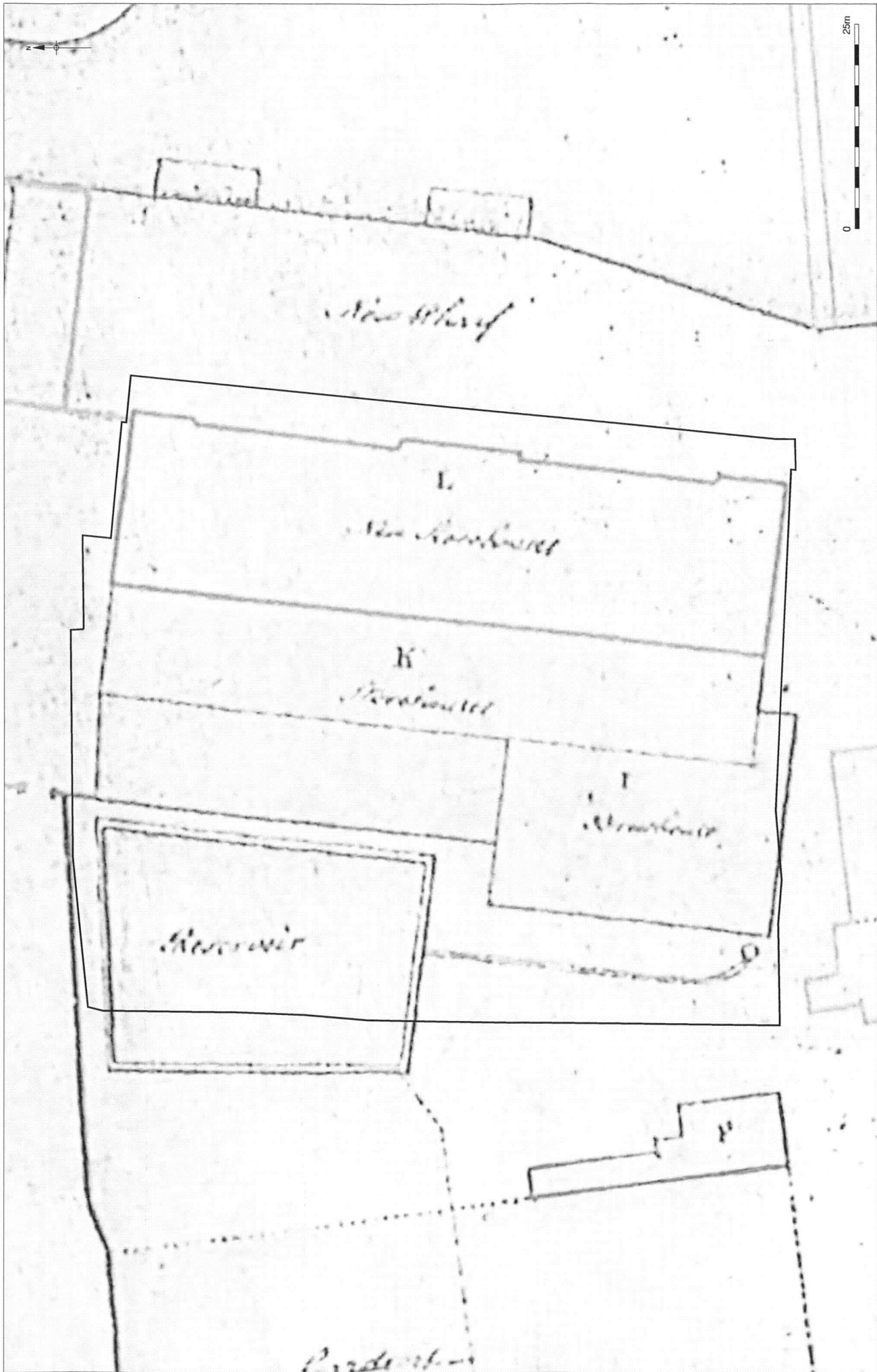


Figure 4
1783 / 1784 Wyatt Designed Buildings, showing the approximate location of Phase C Excavation
1:625 at A4

6 ARCHAEOLOGICAL METHODOLOGY

6.1 EXCAVATION METHODOLOGY

- 6.1.1 The following represents a summary of the methodology relating to the groundworks outlined in the Written Scheme of Investigation¹²:
- 6.1.2 The footprints of the proposed buildings of the Phase C area of works were marked out by Total Station Theodolite, operated by a Pre-Construct Archaeology Ltd surveyor and a surveyor working for the client, prior to the removal of overburden from the areas. In total, the Phase C area measured approximately 90m north to south and was 75m wide. The footprint area of the excavations consisted of the F1, F2 and F3 blocks as well as some smaller ancillary buildings.
- 6.1.3 All modern overburden was removed by mechanical excavator working under archaeological supervision. The machine was fitted with a flat-bladed grading bucket. Following the removal of the reinforced concrete surface that had served as the foundation for the 1960s Cold Store as well as a marina car park, archaeologically relevant features were often observed immediately below the surface and hence required a minimal amount of machine excavation.
- 6.1.4 Hand excavation and recording was undertaken immediately upon archaeological levels being attained. All exposed surfaces, structures and cut features were cleaned and examined by a team of archaeologists to locate and define the nature and extent of these elements. All features and structures were surveyed onto the site grid and then onto the OS grid using a Total Station Theodolite operated by a Pre-Construct Archaeology Ltd surveyor. All investigation of archaeological levels was by hand with 1:20 scale plan drawings having been made as well as 1:10 scale representative sections and elevations. Features were assigned unique context numbers that were recorded on *pro forma* context sheets. Digital and SLR photographs were taken of relevant features. Any elements of the pre-existing buildings, surfaces and features were cleaned and recorded using the Museum of London single context recording system. These were not removed without the consent of Gifford. All surfaces and deposits, including overburden, were scanned by a metal detector operated by an experienced operator prior to excavation.
- 6.1.5 Temporary benchmarks (values 2.53m OD; 2.74m OD; 4.47m OD and 3.72m OD) were traversed onto the site from an Ordnance Survey benchmark on the corner of

¹² Bradley, T. (2007) *A Written Scheme of Investigation for an Archaeological Excavation and Watching Brief (Area C) at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Limited, Unpublished Report.

the building south of Osborne Road, to the southeast of the study site (value 3.34m OD).

- 6.1.6 For homogenous and 'low-grade' layers, where it was reasonably argued that more detailed attention would not produce information of value and their removal prove a 'window' onto the underlying archaeological levels, removal was by mattock and shovel. This technique was not employed on complex stratigraphy, and the deposits to be removed were properly recorded first. In order to ascertain the depths of foundations of structures in this phase, it was necessary to use a mechanical excavator owing to the depths of the foundations as well as the waterlogged conditions.
- 6.1.7 Following removal of complex structural horizons associated with the phases of the Victualling Yard buildings, sample excavation was undertaken on the consolidation deposits underlying the structural horizons. Earlier structures or features were encountered and recorded using the single context recording system detailed above.
- 6.1.8 In addition to the excavation of man-made deposits, some assessment of the naturally deposited levels was necessary, especially when these were organically preserved and laid down within archaeological time scales. As with the evaluation, this was particularly relevant to a thick blue clay layer thought to be natural and seen across the east of the area.
- 6.1.9 Any finds from the site were removed to Pre-Construct Archaeology Ltd offices in Brockley, London for processing. The completed archive and finds will be deposited with the appropriate repository.
- 6.1.10 The excavation works were covered by the generic site code B1790D.

6.2 POST-EXCAVATION METHODOLOGY

- 6.2.1 Owing to the nature of the majority of features recorded during the excavations, *i.e.* stone and brick, and the fact that they originated in structures over a small time-scale, the archaeological results have been assessed using a combination of the stratigraphic information obtained from the site and the historical maps for the Victualling Yard complex. This has been done in order to best phase the archaeological sequence.
- 6.2.2 The phased sequence for this area of excavation has been compiled without consideration of the directly comparable phases that have been identified in the Phase D area of works as well as the Attenuation Tank at Brewhouse Square works.

It is envisaged that a report combining all of the phases of the redevelopment of the site will be produced by Gifford. This will create a site-wide phasing model that combines the similar discrete phases from all of the different areas of investigation.

7 THE ARCHAEOLOGICAL SEQUENCE – PHASE C

7.1 Phase C Summary

- 7.1.1 The area was subdivided into the footprints of the proposed new structures. A PCA surveyor marked out the locations of the F1 and F2 buildings, the data having been provided by Berkeley Homes. A surveyor working for the groundworks contractor marked out the location of the F3 block and the ancillary buildings on the western side of the area. The F1 block formed the majority of the eastern side of the area with the F2 and F3 footprints extending to the west to form a courtyard-type arrangement (Fig. 2).
- 7.1.2 The evaluation exercise illustrated there to be a good state of preservation of several phases of structural remains seen across the south and east of the site, with considerable truncation observed in the northwest of the site. The foundations of Samuel Wyatt's 1783 Northern Storehouse dominated the F1 building footprint. These consisted of limestone foundations with red brick walls built on top of them. There was also evidence for ground reclamation from Portsmouth Harbour, seen as the redeposition of thick blue clay, thought also to serve as damp proofing for the structure. Also seen were drains and pier bases for supporting floor surfaces. Cobblestone floor surfaces are likely to be from George Ledwell Taylor's reformation of the Victualling Yard in the late 1820s.
- 7.1.3 Remains observed in the F2 area of the site illustrated the evolution of the Victualling Yard, with masonry from the original brewery operations seen to be overlain by the mid 18th-century Brewhouse and Beerstore and then the 19th-century Salt Meat Store. The scale and function of these buildings reflected the shift from a focus on brewing in the yard to, when the naval beer ration was abandoned, an emphasis was on the storage of salt meats and other foodstuffs.
- 7.1.4 The F3 footprint excavation exposed the continuation of the western external wall of the 1783 Wyatt-designed Northern Storehouse. Towards the centre of the trench, the eastern external wall of the Salt Meat Store was revealed. Associated with both of these structures were circular and square brick culverts. Towards the far west of the footprint, where the evaluation test trenches had revealed modern disturbance, was a backfilled reservoir dating from the mid 18th century. The material used to backfill this feature appeared very modern, most likely dating from the last 30 years and explains why the evaluation trenches only recorded modern disturbance. The reservoir continued some distance to the south as was shown by the excavation of a slot

through its fill. The southern boundary of the feature was marked by a truncated edge rather than the timber shuttered edge as seen in the F3 footprint. The remains of a red brick wall to the south of the reservoir most likely relate to one of the historical buildings observed in the F2 excavations.

7.2 PHASE 1: NATURAL

Contexts: [1672] [2013] [2015] [2031] [2032] [2201] [2238]

- 7.2.1 Foreshore gravels, [1672], were observed in sondages excavated against the foundations of structures built in the F1 footprint. These were not observed *in situ* but rather when a machine bucket removed material as part of these investigations. The gravels were a brown-grey colour and consisted of loosely packed rounded pebbles within a coarse grained sandy matrix. Where observed, these were submerged beneath varying depths of water from both the tidal fluctuations of the harbour and ground water following its course towards the sea. Description of these gravels and the relationship with overlying archaeological features was hard to ascertain owing to the conditions in which they were observed. There is a possibility that they are not natural foreshore gravels but rather represent large dumps of gravel from a reclamation episode on the foreshore. However, from the surface investigations of materials produced from the sondages, no culturally modified material was seen in these deposits.
- 7.2.2 In the west of the site, these gravels were observed as being more compacted, not having been exposed to flooding from the tide and groundwater flows. They were a mid orange brown colour with a lesser percentage of sand than as seen elsewhere across the site. In Evaluation Trench 4 in the centre west of the Phase C area, gravel [2032] was recorded at heights between 2.52m OD and 2.62m OD. Similar gravels were seen across the site and are unlikely to have been redeposited, as they were seen far enough inland to be safe from tidal surges.
- 7.2.3 Alluvial silty-clays of a green/blue-orange colour were seen in the north of the area and represent a well-consolidated natural horizon that was identical to the material observed in the Phase D excavations. In the proposed F3 building footprint these were recorded as context [2201] and observed at a height of between 2.31m OD and 2.67m OD. Evaluation Trench 7 was located in the northwest of the Phase C area and had similar material recorded as context [2013] seen at heights between 1.83m OD and 2.33m OD. Clay [2015] was very similar in texture and seen at a height of between 1.94m OD and 2.22m OD in the same evaluation trench.

7.2.4 Layer [2238] was observed to overlay natural clay [2201] as seen in a cut for a later reservoir. It was composed of sandy gravels and seen at a height of between 2.50m OD and 2.53m OD. The observation of gravel towards the west of the site was noted in other phases of works.

7.3 PHASE 2: PRE-1716 BEERSTORE, MALTLOFT AND STABLES (FIG. 5)

Contexts: [1636] [1645] [1657] [1674] [2030] [2047] [2048] [2049] [2050]

7.3.1 Prior to the construction of the features observed in this phase, a sequence of ground raising occurred. The 'strip and map' method of excavation noted that the interior of the later Salt Meat Store (Phase 5), within which these features were observed, was on higher ground to that of the exterior. This was illustrated by the external walls of the Salt Meat Store having been cut through natural stratigraphy, with the earlier walls and floor surfaces appearing to be made upon a layer of dark-brown sandy-silt with occasional fragments of demolished brick and limestone. As mentioned, layer [1674] was observed within what corresponds to the interior of the 1830s Salt Meat Store, and measured approximately 25.00m east to west by 16.00m north to south. Heights were recorded as being between 2.32m OD and 2.56m OD. Deposit [2030] as seen in Evaluation Trench 4 and [2050] as seen in Evaluation Trench 2, both to the north of the F2 footprint, are likely to represent a similar deposit. The latter was cut by a north-north-east to south-south-west aligned construction cut [2049] for wall [2048] that has been identified as belonging to this phase. It extended beyond the western limit of the trench but where seen measured 2.80m long by 0.20m wide at a height of 2.41m OD. It was made from roughly hewn limestone and what appeared to be Caen stone blocks of a similar style to other stones of this phase. No dating evidence was retrieved from the backfill [2047].

7.3.2 Wall [1657] was constructed with roughly hewn limestone blocks and was orientated north-south towards the centre of the F2 building footprint, in the southwest of the Phase C area and close to the buildings seen in the D1 excavations. It measured 2.70m long by 0.60m wide. Levels on the top of the wall were between 2.21m OD and 2.44m OD. The blocks of stone measured a maximum of 470mm by 200mm by 120mm and were bonded with a soft grey-yellow fine sandy mortar. The masonry was truncated to the south by a construction cut for a later support base [1664] and to the north by later wall [1642]. The depth of the foundation was not observed. Some evidence remained for red bricks having been built on top of the wall. The style of this wall was notably different from others seen in this area and it suggested that it represents an internal or external wall from the pre-1716 beerstore and maltloft structure.

- 7.3.3 Wall [1645] was recorded 5.50m due east of wall [1657]. It measured 1.60m north to south, 0.50m wide and was seen to extend parallel to wall [1657]. It was constructed from limestone blocks, bonded with a moderately soft lime mortar with fragmentary remains of unfrosted red bricks on the upper surface. Not enough bricks survived to be able to ascertain the full size or the bond arrangement that was used. Heights on the top of the wall were recorded as being between 2.43m OD and 2.51m OD. Truncation has occurred to the north of the wall, most likely as a result of the building of the later Salt Meat Store. A cobblestone surface was recorded less than a metre to the east, and like the brick wall that was seen to the southwest has been interpreted as belonging to a different phase because of the alternative choice of materials. However, the fact these later features are arranged at parallel and ninety-degree angles to the earlier masonry suggests that reuse of the original structure's layout in the new building.
- 7.3.4 To the north of [1645], wall [1636] most likely represented its northerly continuation. This was constructed in an identical manner, namely from roughly hewn limestone blocks bonded with a yellow-grey sandy mortar. The south of the wall had been truncated by the large east-west wall belonging to the later Salt Meat Store. The full extent of the wall was seen to go beyond the northern limit of the F2 building footprint.
- 7.3.5 Subtle variations in the alignment of walls [1657], [1645] and [1636] as well as the location suggest that they belong to the pre-1716 beerstore and maltloft that were part of the original Captain Henry Player brewery that operated on the site.
- 7.3.6 Phillpotts's historical background to the site describes a building labelled as 5.16 as representing a northern extension of the beerstore, stable and maltloft structure with a long frontage running alongside the front of the quay. There was no indication of any walls or floor surfaces from this structure with the most likely explanation for its absence as being that it existed beyond the limit of excavation for the F2 building footprint.

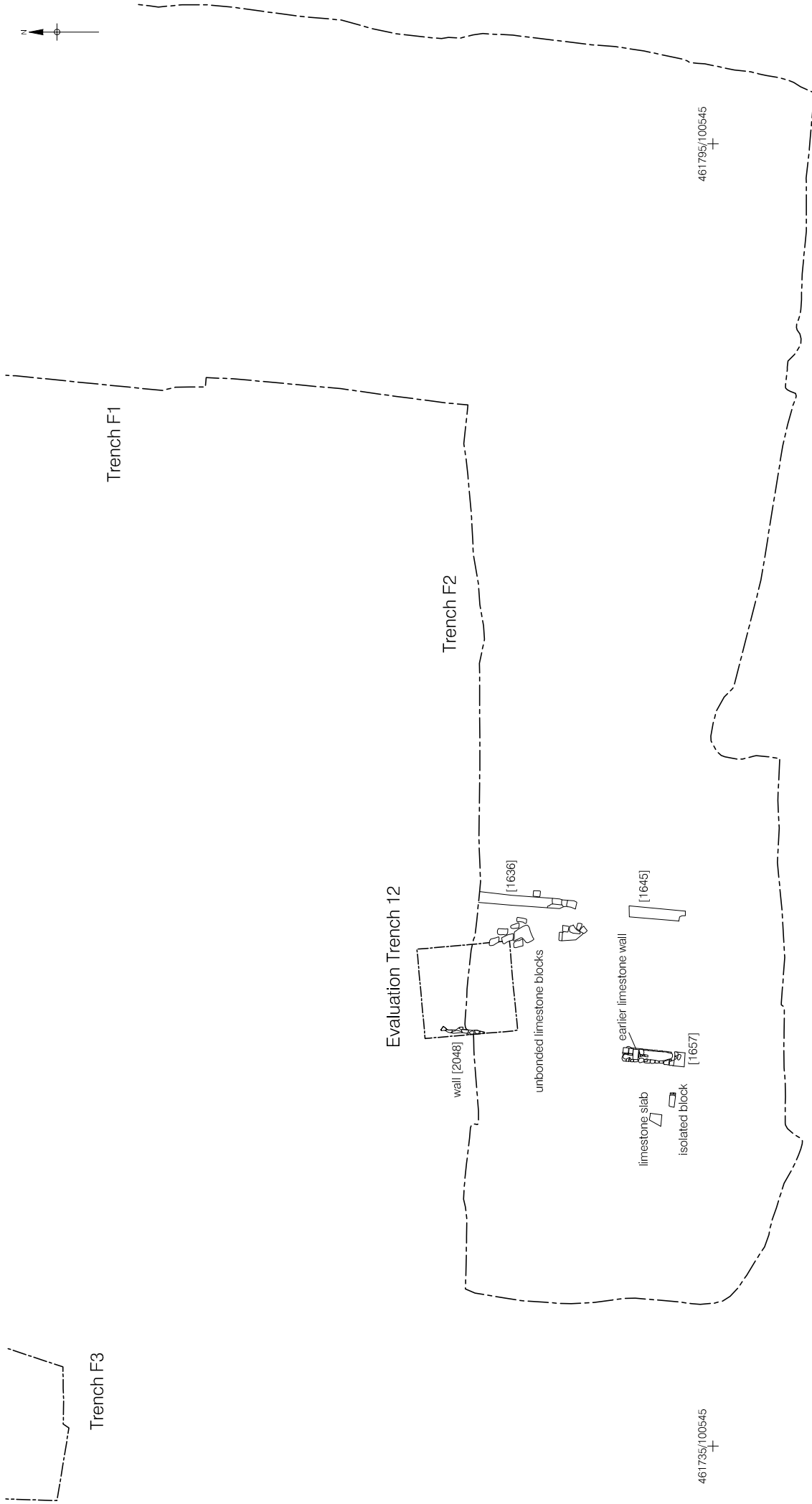


Figure 5
Phase 2: Pre-1716 Beerstore, Maltloft and Stables
1:250 at A4

7.4 PHASE 3: 1757 NEW BREWHOUSE AND 1758 NORTH STOREHOUSE AND RESERVOIR (FIG. 6)

Contexts: [1635] [1637] [1638] [1639] [1644] [1659] [1660] [1667] [1668] [1669] [1675] [2241] [2242] [2243] [2244] [2245] [2246] [2247] [2248] [2249] [2250]

- 7.4.1 Reduction of modern overburden in the F2 area of the Phase C works revealed remains from what has been interpreted as the two buildings constructed in this area of the site in the mid 18th century. The remains exposed consisted of walls and floor surfaces. As the function of both the buildings were intrinsically linked to one another, clear distinction between the two is not possible from the archaeological remains observed. Aside from the fragmentary remains of floor [2048] as seen in Evaluation Trench 2, the test pits excavated across the area failed to record any evidence of features from this date.
- 7.4.2 As with the features from the previous phase, the floors and walls observed here were seen to cut layer [1674], which is presumed to have represented a phase of ground raising across the area. Layer [2050] as seen in Evaluation Trench 2 represents a similar deposit.
- 7.4.3 The east-west wall [1639] was recorded towards the centre of the F2 building footprint. This was made from unfrogged red bricks and measured 5.40m long and measured 0.38m wide. Levels were between 2.43m OD and 2.49m OD. Only two courses of brickwork were seen, measuring a total of 0.14m high and not allowing for a bonding pattern of the masonry to be identified. The size and presence of floor surfaces to both the north and south strongly suggest that this represents an interior division of the structure rather than demarcating the southern external wall of the building. The western end of the wall had a raised sandstone slab [1644] placed on top of it. This may have related to a pier base positioned here for a column to support the roof of the building or alternatively a machine base or fixing. It did not have the appearance of truncating either the brick wall or the associated floor as the later support bases related to the Salt Meat Store did. To the eastern end, the wall was truncated by a later north-south aligned brick wall, [1643].
- 7.4.4 Floor [1635] was recorded towards the centre of the F2 block footprint, on either sides of wall [1639]. It was composed of crudely arranged sandstone slabs, measuring from a maximum of 1100mm by 900mm by 70mm to a minimum of 200mm by 200mm by 70mm. Heights were observed between 2.40m OD and 2.49m OD. This floor is presumed to have represented the interior of the 1758 North Storehouse and this is perhaps represented by a peculiarity in the arrangement of cobbles. Seen towards the western end of the floor and parallel with the earlier wall [1645], two timber planks

were set in the floor at a distance of approximately 0.36m apart. These extended for 2.78m north of the wall [1639] and may relate to barrel storage in the area, representing runners upon which casks would have settled.

- 7.4.5 Similar arrangements of timbers and cobbles were seen to the north of floor [1635], having been separated from the floor by the later wall [1642]. Both [1637] and [1638] were composed of smoothed cobblestones. Masonry [1637] measured 2.00m long by 0.40m wide and was seen at levels between 2.51m OD and 2.52m OD. It was made from rounded cobbles that measured on average 360mm by 200mm in plan. Badly decayed timber planks were seen to either side of the masonry. Wall [1638] was made from similar sized cobbles but was longer, measuring some 3.80m north-south before it went beyond the northern limit of excavation for the F2 footprint. Heights were between 2.45m OD and 2.51m OD. As with [1637], the decayed remains of timber planks were seen on either side. These features were positioned 1.00m apart and extended to the north on a parallel arrangement to each other as well as floor [1635].
- 7.4.6 Sporadic truncated floor surfaces were observed associated with floor [1639] and the runners [1637] and [1638]. It is probable that these represent the interior floor surfaces that date from the 1758 North Storehouse. Floor [1675] was immediately to the west of masonry [1637] and was composed of cobblestones measuring on a maximum of 340mm by 180mm at a height of 2.53m OD. It measured 1.10m north to south by 0.90m wide. Other similar areas of stones were identified both to the west of wall [1637] and to the east of [1638] but were not substantial enough to be identified as being floor surfaces rather than redeposited stones.
- 7.4.7 The partial remains of a red brick wall were identified to the east of the external wall of the later Salt Meat Store. Masonry [1668] was represented by an unfroged redbrick wall and measured 1.10m north-south by 0.40m wide. It was seen at a level of 2.25m OD. Severe truncation had occurred to the north and south of this wall. To the north of this wall, the fragmentary remains of another red brick wall were recorded as [1669]. This measured 1.20m north to south by 0.45m wide and was seen at a height of 2.34m OD. The full extent of this wall was not recorded as it went beyond the northern limit of excavation of the F2 building footprint. Both the walls were arranged on a parallel alignment although unlike rest of the structural elements from this phase, these were not observed to have been made through the ground raising layer [1674]. It is possible that these walls represent component parts of the 1758 North Storehouse and were originally cut from a higher level that has since been truncated by the cutting of the eastern external wall [1641] of the 1830s Salt Meat Store. Although truncated, their width suggests that they would not have been

suitable as external walls and therefore this area was part of the interior of the storehouse building.

7.4.8 Towards the centre of the F2 building footprint the partial remains of two circular brick surfaces were recorded. Masonry [1667] was truncated to the east by a modern intrusion and to the west by the slate-lined tank [1666] that belonged to the later Salt Meat Store. This measured 1.30m east-west and 1.40m north-south at a height of between 2.43m OD and 2.49m OD. It was made from unfrogged red bricks arranged in a circular pattern with limestone slabs positioned towards the centre of the feature. Although this feature was badly truncated, it appeared to be identical to feature [1660] that was located immediately to the east. Although again truncated by the support bases for the floor of the later Salt Meat Store, the remains of this surface were substantial enough to observe the overall semi-circular nature of the feature. It measured 2.40m north-south by 6.80m east-west and was seen at heights of between 2.48m OD and 2.55m OD. Brick dating of samples taken suggested some were reused, dating from 1664 to 1725, and other, non-reused samples to date from 1666-1850. The south of surface [1660] was delineated by an east-west edge where the surface dropped to form a large pit. This was backfilled with demolition rubble consisting of bricks, presumably from this feature, as well as modern material. Attempts to find the complete depth of this pit were unsuccessful owing to the depth of the feature as well as unsafe working conditions posed by potentially collapsing sides. Unlike the centre of floor [1667], floor [1660], had a semi-circular recess towards the centre of the floor. Two courses of the surface's brickwork were visible in the section created by this recess. Notably, two projecting raised brick courses extended towards the pit and terminated at the edge of the pit. These had the appearance of having a function such as holding an axle or machine bearing. Whilst a clear function for these surfaces is not immediately obvious, the circular nature of the floors as well as the deeper pit towards the centre and the suggestion of an axle or rotating shaft hints at an industrial function perhaps associated with the prevalent brewing industry that dominated the site at the time of this building's creation.

7.4.9 Wall [1659] was seen on the southern limit of excavation for the proposed F2 building footprint. It was built on an east-west alignment and formed the southern boundary of the pit for which floor [1660] formed the northern side. A sandstone slab was positioned on top of the unfrogged red bricks of this wall. Seven courses of brick work were seen arranged in an English Bond pattern. These were dated as being from the 1850s although this would seem very unlikely considering its association with the

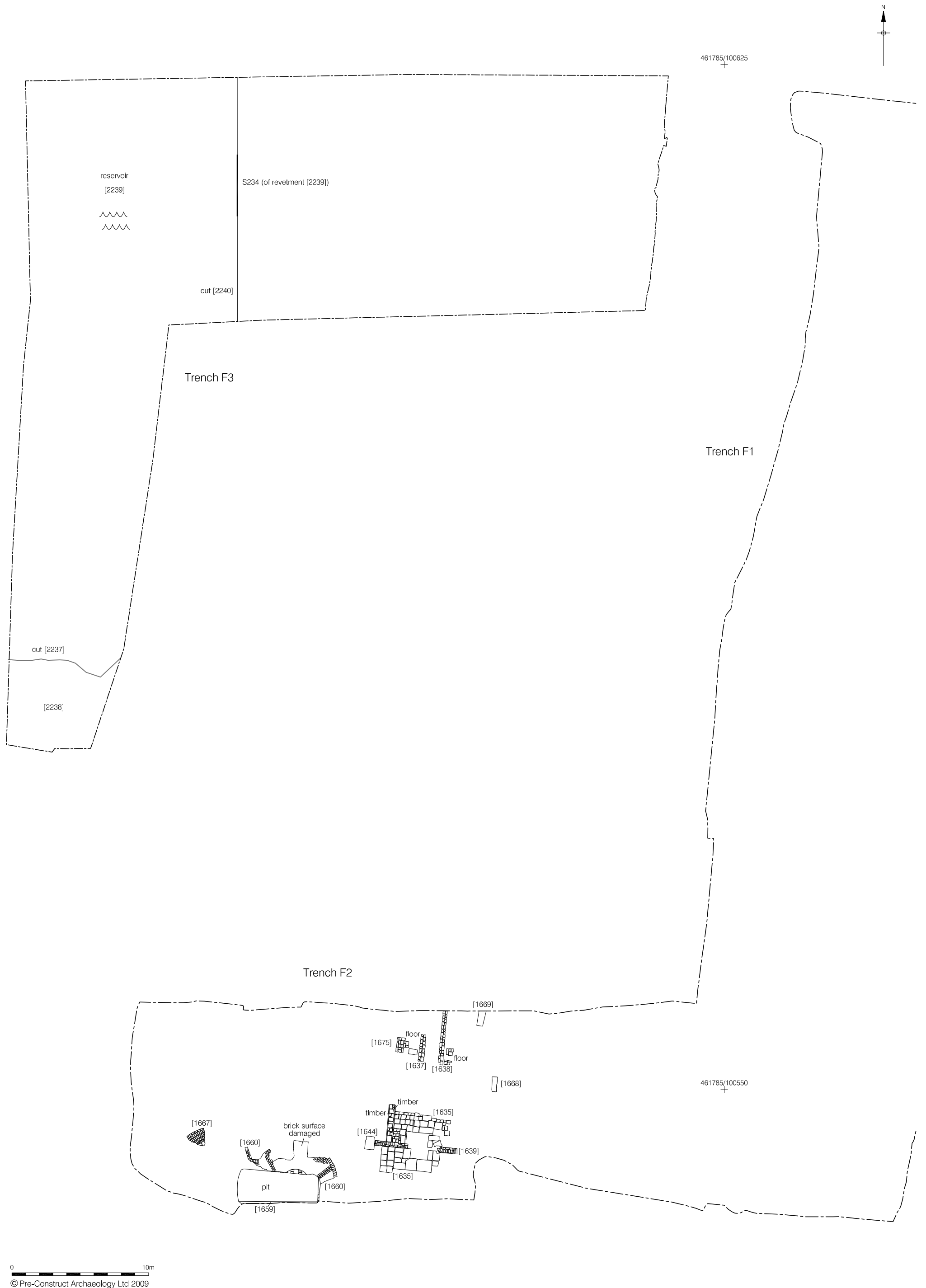


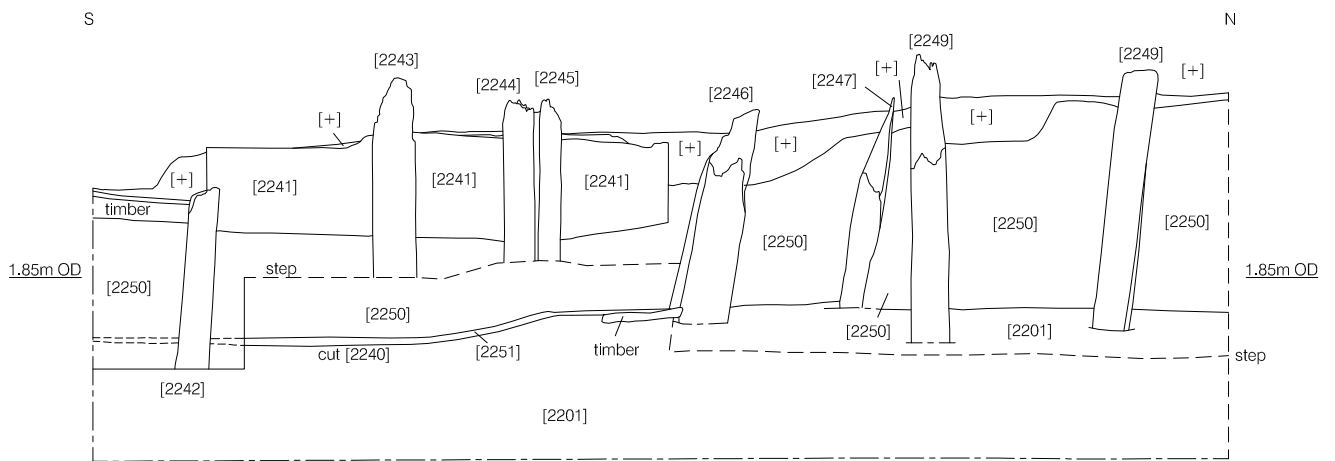
Figure 6
Phase 3: 1757 New Brewhouse & 1758 North Storehouse and Reservoir
1:250 at A4



PLATE 1: Floor [1660] looking west with 1m and 2m scales



PLATE 2: Floor [1660] looking south with 1m scale



Section 234
 Wall [2239]
 Phase 3
 Trench F3
 East Facing

0 1m
 © Pre-Construct Archaeology Ltd 2009

Figure 7
 Section 234
 1:25 at A4



PLATE 3: Cut [2240] for reservoir [2239] looking southeast with 1m scale



PLATE 4: Timber-lining of reservoir [2239] looking east with 2m scale

floor [1660] and its notable difference from bricks of the later Salt Meat Store. Where seen, it measured 0.67m north-south, was greater than 0.84m deep and measured 5.60m east-west.

- 7.4.10 In the western half of the F3 footprint a north-south aligned cut [2240] was recorded that extended across the whole area. This was made through natural stratigraphy and from a height of between 2.08m OD and 2.39m OD. The full width was greater than the excavation area. Clay layer [2250] overlay the natural stratigraphy at a height of 2.30m OD and appears to have been deposited prior to the cut being made. The cut represented the easterly boundary of reservoir [2239] known from Phillpotts's historical background to represent the thousand-tun capacity basin ordered in 1757 and enlarged in 1758. Timbers [2241], [2242], [2243], [2244], [2245], [2246], [2247], [2248] and [2249] (Fig. 7) represented the partial remains of shuttering and piles that would have lined the feature. Where observed, this measured approximately 3.50m north-south and lay between 2.65m OD and 2.28m OD. The species of the timbers was predominantly oak and the revetment was constructed by wedging planks behind vertically-driven stakes and abutting the natural stratigraphy. There was no apparent re-use of the timbers used as stakes although it remains a possibility that the timber sheathing could have been sourced from a shipwright's yard.
- 7.4.11 Excavation of the fill of reservoir [2239] was hampered not only by its very nature but also by the stored water in the feature. It was composed of large lumps of modern reinforced concrete and other assorted demolition rubble. This had the appearance of being the product of the demolition of a building that dated to no earlier than the 1960s. This was an identical fill to the modern material that was seen in Evaluation Trenches 5 and 6. As full excavation of this material would have been problematic, the decision was made to grade the fill down to the height of the top of the natural stratigraphy [2201] through which it was cut in order to observe its full extent across the proposed building works in Phase C.
- 7.4.12 An attempt was made to reveal a more complete sequence of the shuttering on the southern boundary of the feature and also to define its southern extent. A slot was excavated through the fill of the feature at the height of the natural material as detailed above. The southern boundary of [2239] was recorded as cut [2237] and was seen made through natural stratigraphy at a height of between 2.53m OD and 2.50m OD. No timber shuttering was observed here. Large concrete lumps of the fill were seen to directly abut natural stratigraphy that had the appearance of having been graded by a mechanised machine bucket. This may have been responsible for the absence of any timber shuttering. The base of the reservoir was observed approximately 0.5m below the top of the cut, at a height of 2.08m OD, although this

may be misleading if the sides and base had been subject to modern disturbance. The feature measured c. 45m north to south by 15m east-west where seen.

7.5 PHASE 4: 1782-3 SAMUEL WYATT STOREHOUSE (FIG. 8)

Contexts: [1600] [1601] [1602] [1603] [1604] [1605] [1606] [1607][1608] [1609] [1610] [1611] [1612] [1613] [1614] [1615] [1616] [1617] [1618] [1619] [1620] [1621] [1622] [1623] [1626] [1627] [1628] [1629] [1630] [1631] [1632] [1633] [1671] [1673] [2200]

Evaluation trench contexts: [2000] [2001] [2002] [2004] [2005] [2006] [2007] [2008] [2009] [2010] [2011][2012] [2020] [2021] [2022] [2023] [2024] [2025] [2026] [2034] [2035] [2036] [2037] [2039] [2040] [2042] [2043] [2044] [2045] [2055] [2056] [2057] [2059] [2066] [2067] [2068] [2069] [2070] [2071] [2072] [2073] [2074] [2075] [2076] [2077] [2078] [2079] [2084] [2085] [2086] [2090] [2091] [2092] [2093] [2094] [2095] [2096] [2097] [2098] [2099] [2100] [2101] [2102] [2104] [2106] [2107] [2108] [2109] [2110] [2111] [2112] [2114] [2115]

- 7.5.1 To complement the new brewery that Samuel Wyatt built in 1782 (as exposed in the Phase D works) a new two-storey storehouse was built to the east of the 1758 North Storehouse. The foundations of this structure dominated the proposed F1 building footprint.
- 7.5.2 The new storehouse and its associated wharf were made by reclaiming land from the sea. The westerly foundations of the structure were seen to be built within cuts that were made through natural stratigraphy. However, the central and eastern foundations were seen to be abutted by blue clay [1671]. The absence of a construction cut through this material as well as intermittently dispersed brick and tile within it suggests that it was redeposited. Therefore, it would appear that whilst construction cuts were made for the structure in the west on solid natural deposits, the eastern side of the new building was made on reclaimed land.
- 7.5.3 As noted in the historical background (see 5.6.10), the building was divided longitudinally into three units and this was represented in the foundations that were observed. The eastern foundation wall was recorded as context [1603] and was constructed from large limestone blocks that were loosely bonded with a lime and fine sand mortar. Some stones had the appearance of being roughly hewn to form square blocks, but the absence of similar working in all of the stones suggests that some were reused from earlier buildings in the locality. The wall measured between 0.60m and 0.80m wide and was 73.80m long where seen in the F1 footprint. Some variance was recorded in the height of the top of this wall owing to truncation by the foundations of the 1960s Cold Store, levels ranging between 1.76m OD and 2.36m

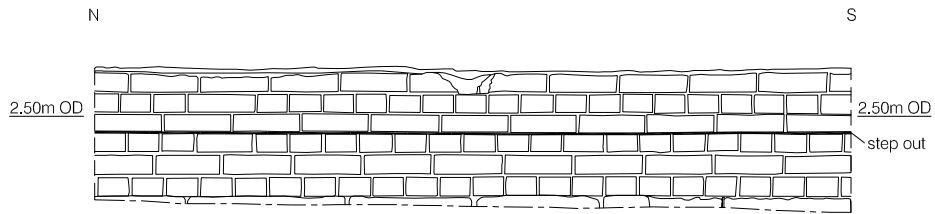
OD. Sondages measuring the width of a toothless ditching bucket (approximately 0.60m) by 2m was dug up against the western face of masonry [1603] in order to determine the depth of the foundation. In the south of the structure this noted the foundations to extend to a depth of beyond 3.50m deep (approximately -1.60m OD). Excavation ceased due to collapsing sides coupled with the rate at which water was entering the sondage making it impossible to observe the masonry. The sondage dug up against the same wall but towards the centre of the building recorded the limestone foundations to be 2.80m deep at this point (approximately -1.03m OD). At the north of the wall, they were seen to be 2.90m deep (approximately -0.79m OD). Rather than representing a coincidental variance in the height of these foundations, the southeastern edge of the building may have required deeper foundations owing to different forces acting upon it or the need to find firmer material into which to set the walls caused by a variance in the levels of natural stratigraphy.

7.5.4 At a distance of 7.50m to the west of this wall, the first of two internal foundations was located parallel to wall [1603]. Foundation [1602] was constructed in an identical manner to the above. It was 0.80m wide by 74.24m long with heights recorded between 1.56m OD and 2.29m OD. A sondage dug against the western side of [1603] at the southern end of the wall recorded the depth of the foundation to be 3.40m deep (approximately -1.38m OD). The depth of the foundations in the centre of the wall was seen to be 2.50m deep (approximately -0.61m OD). In the north, the depth was 2.30m deep (approximately -0.20m OD). These heights suggest the same as the above, namely that the foundations were deeper at the southern end of the structure perhaps owing to greater stresses acting upon the building in this area.

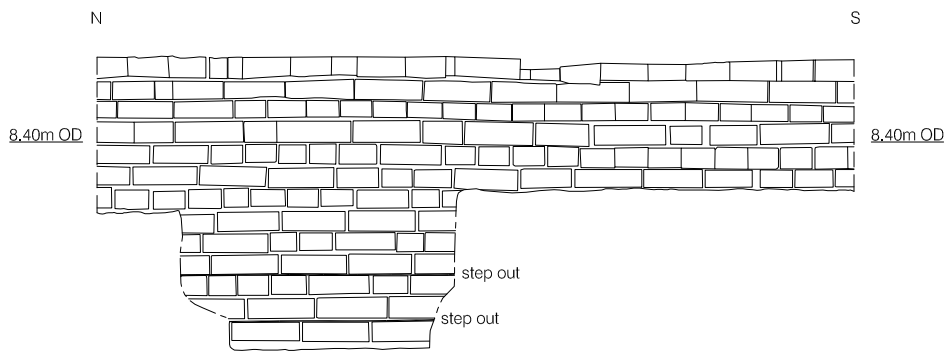
7.5.5 The western of the two interior support walls, [1601], was located 7.50m to the west of [1602]. This was built in an identical style to the eastern external wall [1603] and the eastern support wall [1602]. However, the full extent of this foundation was not exposed completely in the F1 footprint. Where seen, it measured 43.00m north-south by 0.80m wide. Heights were seen as being between 1.89m OD and 2.18m OD. A sondage dug up against the middle of the foundation recorded it to be 2.30m deep (-0.52m OD). Wall [2091] as revealed in Evaluation Trench 9 is likely to represent the same foundation wall.



Figure 8
Phase 4: 1782 Samuel Wyatt Storehouse
1:250 at A3



Section 227
 Wall [2200]
 Phase 4
 Trench F3
 West Facing



Section 228
 Wall [2206]
 Phase 5
 Trench F3
 West Facing

- 7.5.6 The western external wall of the Northern Storehouse was seen in the F2 building footprint in the south of the Phase C area and recorded as [1600]. This was built upon well-consolidated natural sandy-gravels [1672] and perhaps for this reason did not require the substantial limestone foundations as seen with other walls. It was constructed from unfrogged red bricks with a stepped foundation three bricks high, then with another three courses of wall continued on top. In the F2 building footprint, this measured 6.30m north-south by 0.70m east-west and was 0.46m deep. Heights were recorded as being between 2.10m OD and 2.22m OD. Wall [2200] (Fig. 9) as seen in the F3 footprint represents the same western external wall of the Northern Storehouse. However, a shallow limestone block foundation measuring a maximum of 0.40m in thickness was observed here, perhaps as a result of less well-consolidated ground conditions. It measured 15.13m north-south by 0.64m east-west with heights on the top of the red brick recorded at approximately 2.82m OD. The brickwork of the wall here had the same arrangement as seen to the south, namely three courses of bricks as a foundation on top of the limestone then a step and a further three courses of brick before the top of the wall was demolished.
- 7.5.7 Excavation of the sondages as a means of investigating the depths of the foundations also suggested the means by which they were initially constructed. The results from the evaluation test trenches initially suggested that a construction cut was made for each wall through a thick layer of alluvial clay [1671], which was seen across the entire building footprint. Observation of the sections created by digging the sondages suggested this not to be the case, with the blue clay seen to directly abut the foundations. Beneath this clay was what appeared to be naturally occurring foreshore gravels [1672]. It is proposed that the limestone blocks of these foundations were either placed directly onto the foreshore gravels or within shallow construction cuts made through them, although neither was observed in these works. In able to do this, the water flow from the harbour and groundwater would have had to be stemmed. It is unknown whether this would have been possible at low tides or whether a cofferdam or dump of gravel would have restricted the water flow enough to able to do this. As mentioned in the description of the natural material, the foreshore gravels that were examined from the excavation of the sondages did not have the appearance of being redeposited and were lacking in any type of culturally modified material.
- 7.5.8 The blue clay layer [1671] was seen across the interior of the 1782-3 Wyatt North Storehouse. It was firm with no visible inclusions and hence when originally recorded in the evaluation exercise as layers [2110], [2039], [2114], [2099], [2112], [2068], [2021] and [2010] was, as mentioned above, thought to represent a natural foreshore alluvial clay. This clay would have acted not only as a considerably weighty and

sturdy material for use in reclaiming land but also would have served as damp coursing or waterproof layer. With the new structure located so close to the sea front, rising water levels as a result of the tide and groundwater flows may have led to rising damp in the building. This impervious clay layer would have performed well in stopping water flowing upwards into the structure and potentially damaging anything stored in it. This measured between 1.00m and 1.50m in thickness and was seen at heights between 1.12m OD and 2.20m OD.

- 7.5.9 Red brick walls were built on top of the limestone foundations and seen sporadically across the site. This is likely to be as a result of demolition to near foundation level of the building following the Luftwaffe bombing raid and the subsequent construction of the Cold Store in the 1960s. Bricks taken from this wall (such as [2043] as seen in Evaluation Trench 11) were dated to the early 20th century. This is very unlikely to have been the case and the variation in date may be due to similarities between these stock-moulded bricks and their machine-moulded equivalents that are seen in London.
- 7.5.10 Built onto layer [1671] was a sequence of supports for the ground floor of the building. These were recorded as contexts [1608] [1609] [1610] [1611] [1612] [1613] [1614] [1615] [1616] [1617] [1618] [1619] [1620] [1621] [1622] [1623] [1626] [1627] [1628] [1629] [1630] [1631] [1632] [1633] [2084] [2085] [2086] [2104] [2107] [2108] [2109]. Positioned equidistant between the eastern external wall and the eastern spine wall as well as the eastern and western spine walls, these were observed at intervals of every 1.00m to 1.50m. Truncation as a result of the building of the 1960s Cold Store had caused differential degrees of damage to these, but it is presumed that the construction methods were the same for each. Initially, a raft of oak planks was placed upon the redeposited clay [1671]. These typically measured 1m² at a height of approximately 1.70m OD. Upon these rafts were built between 4 and 5 courses of red bricks, arranged to form a square. The bricks were also made into 1m² blocks and were bonded with a soft yellowy-grey lime mortar. The tops of the bricks were seen typically around 2.13m OD. In some instances, a flagstone was used to cap the brickwork, but in many cases it had been removed. It is thought that these bases represented areas where there was a danger of an unsupported floor sagging between the external and internal support walls. In some places, remnants of the smaller cobblestones that would have made up the floor were seen adhered to the larger flagstones of the bases. It is not thought that they were originally built to support columns that would have held up the first floor as these are noted to be later additions.
- 7.5.11 Surrounding the support bases as well as abutting the upper sides of the limestone foundations, layer [1673] represented a phase of ground raising after the construction of

several drains. It was composed of moderately compacted orange-brown sandy gravels containing inclusions of occasional ceramic building material. This was recorded at heights between 2.28m OD and 2.37m OD. Differentiation between this layer and the bedding gravel for a later cobbled floor surface was difficult owing to the similarities of the materials.

7.5.12 Drain [1605] was seen running parallel with the western edge of the eastern support wall [1602]. It was truncated to the north and the south, most likely as a result of later 20th-century buildings on the site. It was built from unfrogged red bricks and measured 56.20m north-south and was 0.66m wide where recorded in the northern half of the building footprint, with several other truncated parts of the same drain to the south of the area. Heights were recorded as ranging from between 2.31m OD to 1.79m OD and generally reflected a slope from north to south (therefore suggesting water flowed to the south). As with other similar drains seen across the site, it was made from a double-brick thickness arched arrangement. The bricks were bonded with their stretchers aligned north-south with occasional evidence of repairs. These drains were positioned so as to be beneath the floor surface of the Northern Storehouse. This is also applicable to drain [2045] as seen within Evaluation Trench 11 and made from stock-moulded, unfrogged red bricks. Bricks from drain [2225], a north-south aligned feature with a limestone block base, seen in the proposed F3 building footprint, also date from this phase although it was partially truncated by [2205], the cut for the later Salt Meat Store wall. Drain [2221] measured 15.20m east-west and represents a drain from the direction of the reservoir extending towards the Northern Storehouse. Heights from this feature ranged between 2.28m OD and 2.82m OD from west to east, suggesting water flowed towards the reservoir. This may, however, be misleading, as heights were taken from the top of the drain as well as from truncated areas.

7.5.13 It is probable that [1605] would have represented one of the main arterial drains of the structure with a similar north-south drain [1607] seen to the west of the western internal wall foundation [1601]. This was built in a slightly different way to [1605] with two parallel rows of bricks with their stretcher faces bonded to one another bridged with a vault of bricks wedged with pieces of slate. Drain [1607] measured 6.60m north-south by 0.88m east-west and was recorded at a height of between 1.62m OD and 1.76m OD.

7.5.14 The difference in the constructional style of drains [1605] and [1607] is not thought to represent several different phases of drain within the Northern Storehouse, as several instances of drains built in the latter style were recorded as being connected to [1605] in the space between the eastern external wall [1603] and [1602]. These included [1604] and [1606]. Drain [1604] extended towards the northeast, where it was

truncated by a modern building footing. It measured 7.60m long by 0.65m wide and was recorded at a height of between 2.01m OD and 2.16m OD. This was constructed in a similar manner to [1607] although differed in that instead of having a brick arch, a limestone slab was positioned over the two parallel brick sides. This may represent a repair to the drain where the arched bricks had been removed or a design feature intended to allow for easier access to the drain. This is the same as drain [2055] as seen in Evaluation Trench 16. Drain [1606] extended towards the southeast where it was again truncated by a modern disturbance. Like drain [1607], this had a brick arch built between two parallel brick sides. This measured 14.70m long by 0.60m wide. It was recorded at heights of between 1.75m OD and 1.92m OD.

7.6 PHASE 5: 1830s TAYLORS REFORMS TO THE YARD AND SALT MEAT STORE (FIG. 10)

Contexts: [1624] [1625] [1634] [1640] [1641] [1642] [1643] [1646] [1647] [1648] [1649] [1650] [1651] [1653] [1654] [1655] [1658] [1661] [1662] [1663] [1664] [1665] [1666] [2202] [2203] [2204] [2205] [2206] [2207] [2219] [2220] [2221] [2233] [2234] [2235] [2236]

Evaluation trench contexts: [2014] [2027] [2028] [2029] [2033] [2038] [2046] [2051] [2052] [2053] [2054] [2058] [2060] [2061] [2062] [2063] [2064] [2065] [2080] [2081] [2082] [2083]

7.6.1 Wyatt's plans for functional and architectural unity across the Victualling Yard were never fully implemented. In 1827 the duties of the Civil Architect (Surveyor of Buildings) to the Navy Board, George Ledwell Taylor, were extended to the buildings of the Victualling Board. Taylor's modifications to the yard followed those that were planned by Wyatt and not realised. The most obvious of these changes was the raising and resurfacing of the floor in the Wyatt-designed North Storehouse or Miscellaneous Stores as it became known. This was intended to raise the floor surface to the level of the wharf.

7.6.2 As mentioned in 7.5.11, gravel layer [1673] represents a dumping of material combined with very similar bedding sand deposited before the new raised floors could be laid. This was seen throughout the footprint of the Miscellaneous Stores. It consisted of an orangey-brown sandy-gravel that contained occasional fragments of ceramic building material.

7.6.3 Floor [1634] was created from cobble setts and observed in the southeast corner of the Miscellaneous Stores, between the external wall [1603] and the eastern internal support wall [1602]. It measured some 13.16m north-south and was 7.40m wide. Heights were recorded as being between 2.03m OD and 2.19m OD. It was generally

in good condition with some evidence of repairs having been made to it in the form of poured concrete, presumably from the 20th century.

- 7.6.4 To the west, and between the internal walls [1601] and [1602], floors [1624] and [1625] were recorded. These were much smaller and fragmentary than [1634] but still represented the raised floor level as part of the Taylor modifications to the structure. Floor [1624] measured 1.82m north-south by 1.50m east-west and was seen at a height of between 2.32m OD and 2.37m OD. It comprised similar sized cobble setts as [1634], the maximum measuring 360mm by 480mm in plan. The stones of floor [1625] measured a maximum of 600mm by 420mm in plan and combined created an area that was 3.70m north-south by 2.5m east-west. This floor was recorded as being between 2.37m OD and 2.31m OD.
- 7.6.5 In the very north of the F1 building footprint, floor [1650] was recorded between the eastern external foundation [1603] and the eastern internal foundation [1602]. This measured 7.60m east-west by 1.60m north-south. The height of this floor was similar to those detailed above, being between 2.36m OD and 2.41m OD. Substantial concrete repairs had been made to this floor, presumably from between the late 19th to mid 20th century when the building was destroyed.
- 7.6.6 The area to the west of the Wyatt-designed Northern Storehouse had continued to be occupied by the New Brewhouse and North Storehouse as erected in 1757 and 1758. These were demolished between 1830 and 1831 to make room for the Salt Meat Store. This was a large structure of approximately the same length as the Northern Storehouse, known from this time as the Miscellaneous Stores, and extended far enough to the northwest to require the backfilling of the reservoir with spoil from the new South Stores.
- 7.6.7 The Salt Meat Store was a single storey building with four aisles. Within the footprint of the F2 building the eastern external wall, [1640], was observed. This measured 8.10m north-south by 0.80m wide with levels on the top recorded as being between 2.50m OD and 2.58m OD. This wall was made from frogged red brick arranged in an English Cross bond with 4 courses visible. Towards the middle of this wall the pattern of brick was partially interrupted by the insertion of four irregularly shaped granite blocks. Combined, these extended for a length of 2.10m and were recorded at a height of 2.60m OD. It is proposed that this represents an entrance or threshold to the structure on the southeast corner. Directly behind these granite slabs, in the interior of the structure, an elongated 'U'-shaped brick feature was seen running parallel with wall [1640]. This was recorded as [1643] and was made from unfrogged orangey-red bricks, measuring 3.50m in length by 0.60m wide. This was bonded into wall [1640] and its proximity to the granite slabs strongly suggests that its function is related to

the entranceway to the structure. Indeed, the presence of occasional limestone slabs on top of the brick work at heights between 2.40m OD and 2.43m OD suggests that a step down from the granite slabs may have been the function of this feature.

- 7.6.8 Wall [1641] represents the continued northern extent of wall [1640] after it became slightly reduced in width after the junction with a westerly internal wall [1642]. It was approximately 0.20m narrower than [1640], at 0.62m wide. Unlike the bricks of wall [1640], these were unfrogged. Heights on top of the brickwork were recorded between 2.50m OD and 2.59m OD. This wall continued beyond the northern limit of excavation of the proposed F2 building footprint but was exposed again towards the centre of the F3 footprint excavation. Here it was recorded as wall [2206] (Fig. 9) and like [1640] was made from unfrogged red bricks. It measured 17.50m north-south and was 0.55m wide, again similar to [1641], at heights between 2.85m OD and 2.97m OD. Thirteen courses of bricks were seen here, bonded in an English Cross arrangement with two steps out at the bottom. This wall continued beyond the northern and southern limits of excavation of the trench.
- 7.6.9 The western external wall was recorded as [2253]. This was not initially observed within the excavation of either the F2 or F3 building footprints but during a watching brief on the excavation of a drainage channel to the west of the area. Due to the nature of the works, detailed recording and examination of the wall was not possible. However, the approximate location and appearance of the wall strongly implied that it represented the western boundary of the structure. A suggested date of 1850 onwards from brick samples taken is similar to other walls from the building. This error of 20 years is due to the similarities between machine-moulded bricks and high quality stock-moulded bricks as seen in this instance.
- 7.6.10 Other walls of the Salt Meat Store that were observed include a large, approximately east-west aligned division recorded as [1642]. This was seen in the F2 building footprint and originated at the point when wall [1640] narrowed to become wall [1641] where it extended to the west for a distance of 23.30m. It measured 0.70m wide and at least 18 courses of brickwork were seen to a depth of 1.50m. The bricks of walls [1640], [1641] and [1642] were keyed into one another, indicating that they were built at the same time. It was also made using an English Cross bond arrangement. Overall, this wall was in very good condition, the size and extent of it suggesting that it represented more than an internal division or partition. It remains a possibility that wall [1642] represents the southern external wall of the Salt Meat Store and other structural components would have been part of an addition to the south, creating an open area or transport shed.



Figure 10
Phase 5: Taylor's Reforms to Yard and Salt Meat Store (1830s)
1:250 at A3



PLATE 5: Floor [1634] looking north



PLATE 6: Floor [1650] looking east with 2m scale

- 7.6.11 Towards the north of the Phase C area in the F3 building footprint and parallel with the external walls, wall [2224] represents an internal partition wall of the Salt Meat Store. It was created from unfrogged red bricks and bonded with a soft pale yellow mortar with the bricks bonded in an English Cross pattern. Five courses of bricks were seen before a step was recorded at the base. Where seen, it measured 13.00m north-south and was 0.60m wide. A height of 2.47m OD was recorded at the top of the wall and 1.84m OD on the top of the step.
- 7.6.12 The partial remains of an unfrogged red brick wall were seen to the south of the southern limit of the earlier reservoir, which was originally backfilled prior to the construction of the Salt Meat Store. No evidence of the original fill was revealed within the excavated areas as only fairly modern material was uncovered (see 7.4.11). Wall [2236] represents an east-west internal division of that structure. It measured 3.62m east-west by 0.70m wide. Heights were seen as being between 2.74m OD and 3.03m OD. Although seen in isolation and not directly connected to any of the other walls of the Salt Meat Store, brick dating from samples taken suggests it to be from 1850 onwards. This is a common error for bricks from this feature and is explained by the similarities of machine-moulded bricks and high-quality stock-moulded bricks used in this instance.
- 7.6.13 Several brick drains were observed cut through natural clay [2201] in the area between external wall [2206] and the internal wall [2226] in the F3 building footprint. A brick culvert recorded as [2222] and [2230] would have been built underneath the Salt Meat Store floor. This was initially seen as a north-south aligned drain, later seen to turn to the west at the south, forming a 'Y'-shaped arrangement. This was built within construction cut [2223] that was made through natural clay [2201]. It is probable that drain [2230] represents a similar turn to the west, in reality forming a 'U' rather than a 'Y' shape. Drain [2222] measured in excess of 13.00m north-south and 9.00m east to west. On top of the culvert, the height was seen to be around 2.65m OD whilst at the base it was around 2.27m OD. Although truncated, culvert [2230] was recorded as being at the similar height of between 2.27m OD and 2.44m OD. This measured 0.80m north-south and was approximately 3.00m wide. Drain [2222] was seen to truncate the internal wall [2224] where it appeared to enter the reservoir but in reality was more likely to have been truncated at this point by the backfilling of the feature.
- 7.6.14 A red brick drain [2203] of a similar construction technique to the ones seen within the Northern Storehouse was seen to the east of wall [2206]. This was similar to other brick culverts across the site having been built from a double-thickness of unfrogged red brick. It measured 17.50m north-south and was 0.64m wide. Heights were

recorded on the top of it as being between 2.45m OD and 2.67m OD. This was constructed within cut [2202] and backfilled by [2204]

- 7.6.15 The interior of the Salt Meat Store as seen in the F2 building footprint to the south of the Phase C area was not seen to contain any of the drains which appeared in the F3 footprint. There were, however, some indications of a drainage network although these were not necessarily contemporary with the original building.
- 7.6.16 Whereas it is likely that the support bases seen within the footprint of the Miscellaneous Stores were used to avoid a sagging floor, those seen throughout the footprint of the Salt Meat Store showed occasional evidence of a circular metal stain, possibly from a pillar and suggestive of being also used to support the roof of the structure. In the F2 footprint these were represented by contexts [1654] [1655] [1661] [1649] [1663] [1665], in the F3 building by [2219] [2220] and in the reservoir by [2234] and [2235]. These typically measured between 1.00m² where truncated and 1.15m² where complete. The complete bases were composed of a square of unfrogged red bricks, bonded with a soft, sandy, light grey mortar and capped off with a square sandstone plinth of between 0.10m and 0.20m in thickness. The tops of these measured between 2.33m OD and 2.66m OD across the majority of the building footprint, with some variance observed in the two that were seen within the reservoir backfill. Brick dating of samples from [2234] and [2235] places them as being from 1850 onwards. This error in dating is most likely explained by similarities between later machine-moulded bricks and earlier high quality stock-moulded bricks.
- 7.6.17 Flagstone floor [1651] was located to the north of the east-west wall [1642] in the F2 building footprint. It was positioned between support bases [1649] and [1653] and consisted of large, neatly dressed flagstones arranged regularly to form what would have been the floor of the Salt Meat Store. One flagstone was seen to directly overlay the support base [1653]. The floor measured 4.50m² and was truncated to the east, south and west and continued beyond the northern extent of the F2 building footprint. Occasional fixings and markings were observed on the surface of the floor. These included iron pipes and fixtures that were made both through the flagstones themselves and the gaps separating them. It is probable that, although not necessarily contemporary with the original building of the Stores, these may refer to possible machine base fixtures or storage units. Also seen was a faint outline of a circular marking made in red paint.



PLATE 7: Culvert [2203] looking north with 2m scale

7.7 PHASE 6: 1897 ARCADE BETWEEN MISCELLANEOUS AND SALT MEAT STORES (FIG. 11)

Contexts: [1648] [1656] [1658] [1666] [1670] [2208] [2209] [2210] [2211] [2212] [2213] [2214] [2215] [2216] [2217] [2218]

- 7.7.1 Several support bases similar to those seen elsewhere on site were observed between the western external wall of the 1783 Wyatt-designed Miscellaneous Stores and the eastern wall of the Salt Meat Store. Features [2208] and [2214] were both constructed within rectangular cuts made through natural clay [2201] and recorded as [2212] and [2215]. Cuts [2217] and [2218] were also seen made though [2201] on a parallel alignment to the above but without any surviving masonry remaining in them.
- 7.7.2 The two support bases seen to fill these cuts shared similar construction techniques. At the base of the cut, a square limestone slab was positioned. This was truncated in [2214] although a height on the top of the slab was recorded as being 2.23m OD. This measured some 0.73m north-south by 0.47m east-west. The slab in [2208] measured 1.00m north-south and was 0.65m wide with heights being recorded at 2.24m OD and 2.25m OD. Both had three courses of unfroged red brick placed on top of the slab that were bonded with a soft mid grey lime mortar. The height on top of the bricks seen on [2208] was 2.45m OD and on [2214] was 2.41m OD.
- 7.7.3 Dating of the bricks of [2208] and [2214] suggests that they are both machine-moulded unfroged red bricks from 1850 onwards. Whilst this date and the identification of the bricks fits with what we would expect from the historical background, it should be noted a similar classification has been made for earlier bricks. It is therefore a possibility that these bricks are reused earlier ones.
- 7.7.4 These support bases presumably accommodated pillars that would have held the roof for the arcade, although there was no sign of any fittings or fixtures to suggest how this would have worked. Other support bases seen around the rest of the site had flagstones positioned on top of the brickwork although in this instance it seems likely that truncation has removed any potentially surviving masonry.
- 7.7.5 An isolated pier base [1670] was positioned between the western external wall of the Miscellaneous Stores and the eastern wall of the Salt Meat Store in the F2 area. Although truncated on the eastern side, this probably also relates to the arcaded roof that was added between the two structures in the late 19th century. Where seen, this base measured 1.40m north-south by approximately 1.00m east-west. Six courses of unfroged red brick were seen extending to a depth greater than 0.50m. The top of the feature was seen at 2.22m OD and the base was not observed.

- 7.7.6 A large yellow brick culvert, [2210] was partially exposed during the excavation of the F3 building footprint, this being positioned to the west of the external wall of the Northern Storehouse. This had the appearance of belonging to a later phase as it was constructed from markedly different bricks to those seen within the 1782/3 building. It measured 1.95m north-south by 0.50m east-west, although it was partially obscured by a concrete footing to the east. It was made within construction cut [2209] and backfilled by fill [2211]. On the removal of this drain by groundworks contractors it was seen to be greater than a metre in diameter. Culvert [2022] as seen within Evaluation Trench 13 is likely to represent the same drain. It is proposed that the yellow brick drain represents a main water pipe to which the smaller red brick culverts were attached. These additions represent improvements to the existing drainage system that operated across the site and were implemented by building larger drains from higher quality materials.
- 7.7.7 To the north of Phase 5 wall [1642] in the F2 building footprint, components of a drainage system that comprised two red brick manholes were seen to be joined with a ceramic pipe. These were recorded as [1656] and each measured 1.15m by 0.85m in plan, the full depth not being entirely exposed. Heights were between 2.75m OD and 2.64m OD. Also associated with this drainage system was a yellow stock brick drain seen to the south of wall [1642] and recorded as [1658]. This measured 1.07m long by 0.76m wide at 2.42m OD high and was filled with a very dark-brown gravelly silt [1648]. Whilst this drain was made from different bricks than [1656] it is proposed that both relate to a later addition to the Salt Meat Store building dating to the later half of the 19th century or start of the 20th century.
- 7.7.8 A slate-lined concrete feature recorded as [1666] was positioned to the south of wall [1642] and had the appearance of also relating to a later addition to the drainage network of the Salt Meat Store. It measured 1.80m long by 0.80m wide at a height of 2.75m OD and was filled with a dark brown sediment accumulation.
- 7.7.9 Crude repairs in concrete were made to the cobble sett floor surface of the Miscellaneous Stores both in the north and south of the building. This presumably dates from the late 19th century to early 20th century and reflects the increased use of concrete in buildings during this period.

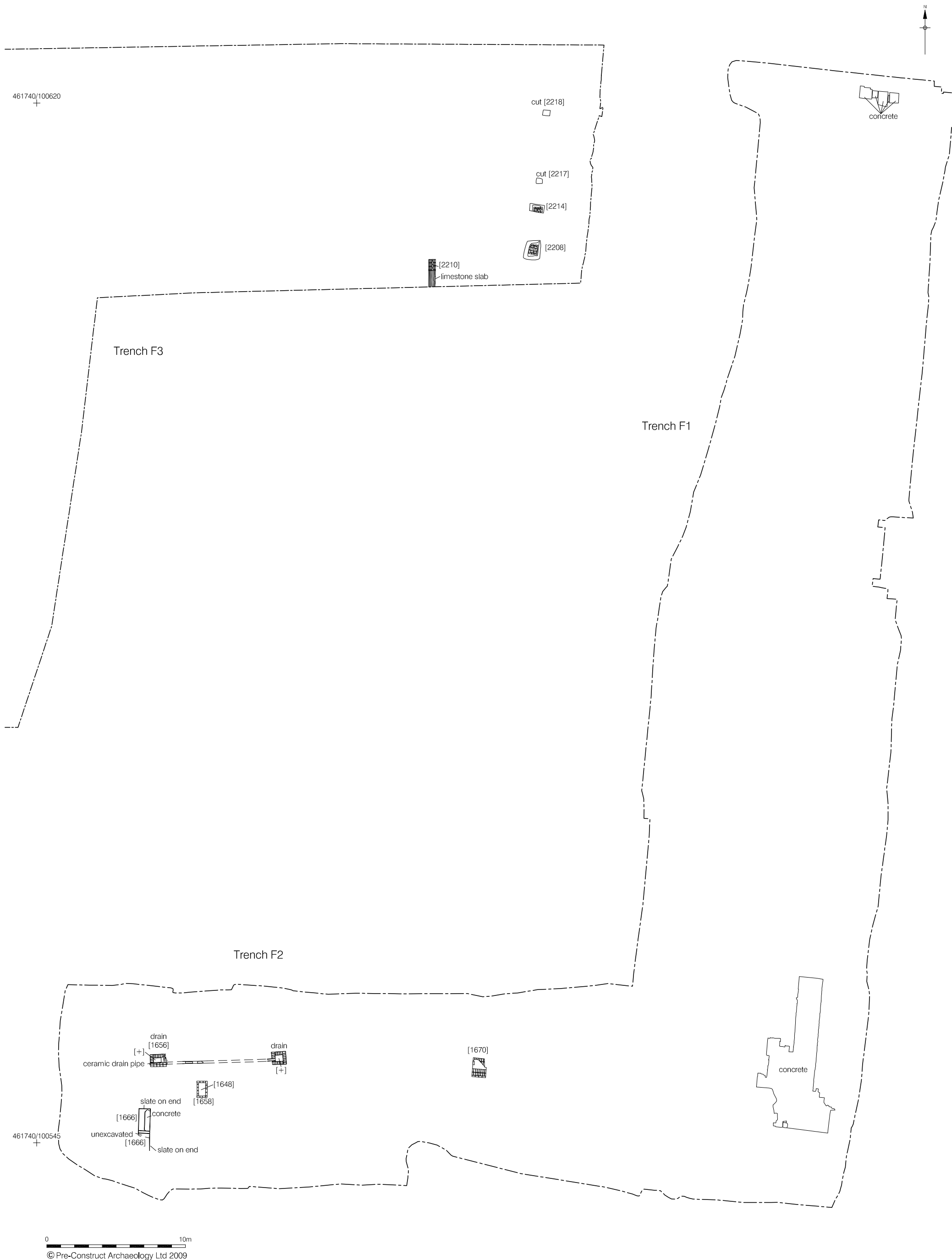


Figure 11
Phase 6: 1897 Arcade Between Miscellaneous Stores and Salt Meat Store/Modifications to Stores
1:250 at A3

7.8 PHASE 7: WWII BOMB DAMAGE AND COLD STORE CONSTRUCTION (FIG. 12)

- 7.8.1 Bombing raids by the Luftwaffe in World War II caused substantial damage to multiple buildings across the Victualling Yard including the Salt Meat and Miscellaneous Stores. Repairs to the buildings were not viable so they were levelled. Backfill of the reservoir included components of the demolished structures as well as more recent material.
- 7.8.2 In the 1960s a Cold Meat Store was constructed on the site of the Miscellaneous Stores, with the purpose of supplying the Navy with frozen food. This was demolished prior to the recent works on site. Part of its construction included the laying of a reinforced concrete mat as well as some intrusive piling and cellar digging. Whilst the mat inadvertently served to protect the underlying archaeological resource, several instances of modern truncation were seen to impact on the foundations of the store buildings. Amongst these were two basements seen to disturb the remains of the Miscellaneous Stores in the centre and south of the building. In addition, concrete piles and ground beams truncated the eastern external wall of the same building. Isolated concrete walls and beams and modern drainage drains were seen throughout the building footprint although these did not extend to any significant depth.
- 7.8.3 Prior to the commencement of the excavations the site was covered by the reinforced concrete mat that was broken out by contractors following the evaluation. Beneath this was a sometimes very thin layer of gravelly ground raising material that separated the base of the 1960s development and the archaeological remains.

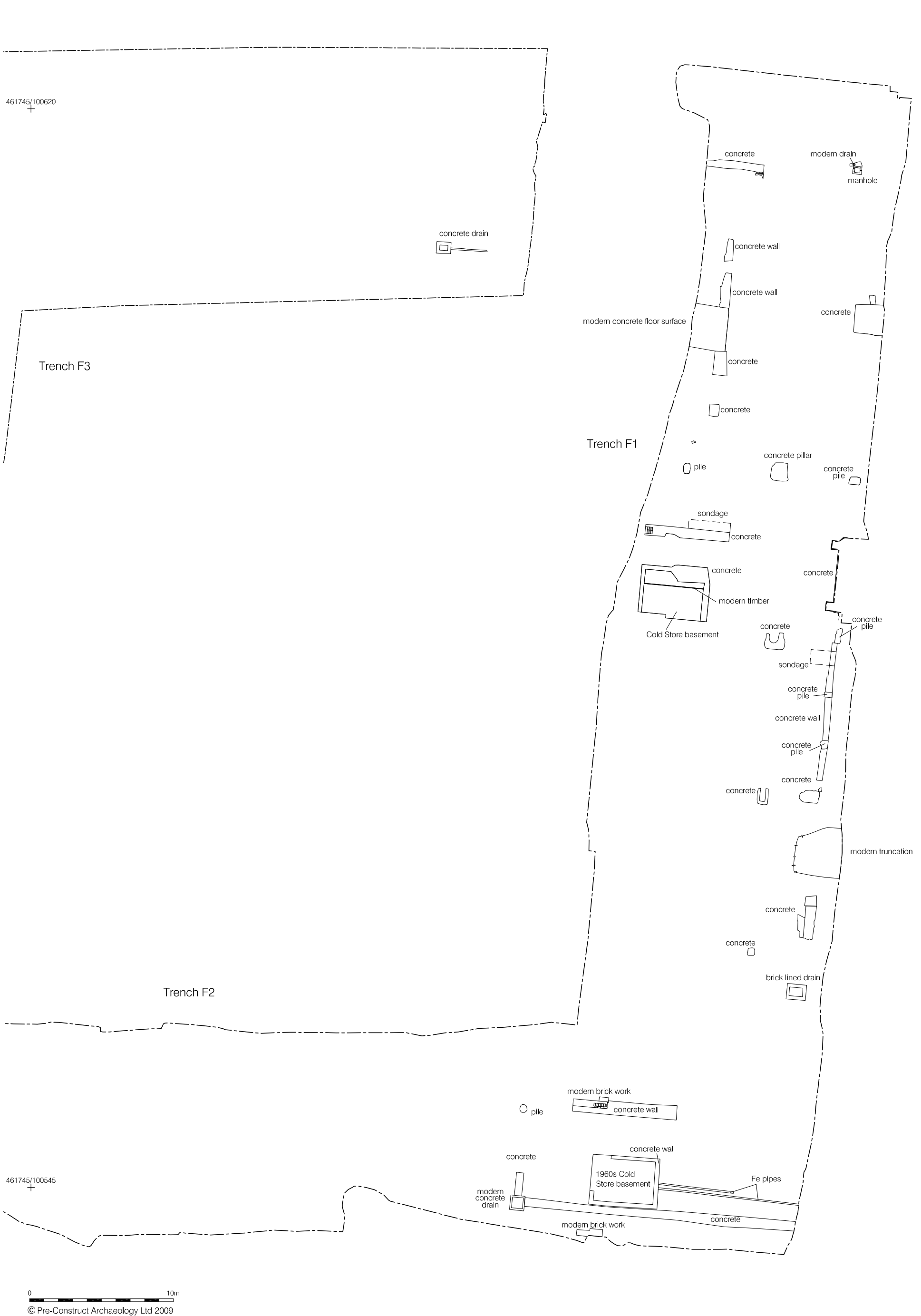


Figure 12
Phase 7: WWII Bomb Damage & 1960s Cold Store Construction/Modern
1:250 at A3



- Limit of Excavation (LOE)
- 1716 Map of Henry Player's Brewery Building
- 1783 / 1784 Wyatt Designed Buildings

0 25m

Figure 13
Plan showing Limit of Excavation overlaying historic building features found on the 1716 Map of Henry Player's Brewery Building and 1783 / 1784 Wyatt Designed Buildings 1:625 at A4

8 ORIGINAL AND REVISED RESEARCH QUESTIONS

8.1 ORIGINAL RESEARCH OBJECTIVES

8.1.1 The aims and objectives for Phase Area C we set out in the Written Scheme of Investigation for the strip, map and sample excavation¹³. The following section aims to answer these questions:

8.1.2 To record the extent and significance of surviving archaeological remains within any part of the Phase C area which will be impacted on by redevelopment works.

8.1.2.1 The Phase C area was subdivided into the proposed new building footprints that were in turn excavated using the methodology outlined in Chapter 6. This recorded the significant hard deposits that constituted the foundations, walls and floors of the buildings that existed in the historic Victualling Yard as well as their spatial relationships with one another. Soft deposits used as part of these structures as well as ground raising, land reclamation and demolition were also recorded. During the course of the works it became apparent that several phases of the yard had been constructed on top of previous buildings, reflecting an intensive usage of the site. Access to historical documents allowed for the confident identification and recognition of discrete buildings with unique functions as part of the yard's overall design. Brick samples were also taken to aid in the dating of masonry remains. The significance in the classification of these structures highlights the changing function of the yard from a brewery started as a family business with a connection to the navy, through to the purchase of the estate by the Admiralty and the relocation of all victualling requirements to Gosport from Portsmouth. Technological advancements as seen through the developments in brewing scale and efficiency across the yard were represented in this part of the site by the construction of associated store houses with close proximity to newly created wharves. The cessation of the naval beer ration saw a decline in the construction of associated structures and the rise of buildings linked to salt meat and other naval goods storage. The decline in the site's usage is best understood from historical sources although the eventual destruction of the Napoleonic era buildings as a result of bombing by the Luftwaffe is represented by the subsequent demolition of several of the structures in this phase down to foundation level.

8.1.3 Insofar as possible within the methodological constraints, the aims and objectives will then become to explain any chronological, spatial or functional

¹³ Moore, H. & Shelley, A. (2007) *Written Scheme of Investigation for a Strip, Map and Sample Excavation of Phase C, Royal Clarence Yard, Gosport, Hampshire*. Gifford, unpublished report

relationships between these buildings and others identified within the Victualling Yard and to link the archaeological results with the historic data already synthesised in historic studies written by Evans¹⁴ and Phillpotts¹⁵ and accrued from previous archaeological interventions in Phase C.

8.1.3.1 The map dated to 1716 showing the outlines and functions of buildings that formed a part of Player's Weevil brewery suggests the presence of a malt loft, beerstore and stables building arranged as a 'T'-shaped formation in the area where the proposed F2 building is located. These were represented in the archaeological record by two parallel limestone walls. It is likely that unlike later phases of building on the site that utilised red bricks for their construction these walls are directly comparable to the limestone-walled basement of the brewery that was recorded in the D1 phase¹⁶ of excavations as well as the Coal Yard and Beer Storehouse revealed in the Additional Remediation Area of the D1 Phase. The location of these walls suggests that they may be part of the building that is marked as 12 on the 1716 map - described as Beerstorehouses. Scales are indiscernible but their parallel alignment on a northeast to southwest axis and position in relation to the D1 brewery building makes the features observed likely to be in the location of this structure. The historical background states that in 1758 this building had been extended further to the north with a long frontage running alongside a new quay. Unfortunately, this was beyond the limit of excavation as far as the F2 building footprint was concerned.

8.1.3.2 The walls identified as belonging to the 'T'-shaped early 18th-century building were seen to be parallel and closely related to the walls and floor surfaces of the mid 18th-century New Brewhouse and North Storehouse. These were recorded as being different from the walls from the earlier phase by the use of red bricks as a dividing wall between flagstone floors. The arrangement and size of the flagstone floor of this phase was also of a higher quality than those seen in buildings identified as belonging to earlier periods across other phases of the site. Although two structures are related by this phase, the fragmentary nature of the masonry did not allow for any division between the two. Additional components of this building included several cobbled surfaces divided with timber shuttering with a suggested usage of being for channelling fluids or runners for housing, storing or moving of barrels. The absence of additional structural remains of this phase is due to the widespread truncation by the later Salt Meat Store and the extension of the building beyond the limits of excavation. The stone wharf that was noted to have fronted the harbour is most likely to be located beyond the limits of excavation of the F2 building although it may

¹⁴ Evans, D. (2000a) *The Granary/Mill/Bakery Complex at the Royal Clarence Yard, with the Hydraulic House and Slaughterhouse*.

¹⁵ Phillpotts, C. (2002) *Royal Clarence Yard and St George Barracks North Historical Study*.

¹⁶ Humphrey, R. (2008) *Assessment of an Archaeological Excavation at Phases D1 and D2/D3 at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology, unpublished report.

possibly remain underneath some of the blue clay used to fill the spaces between the foundations of the 1783 Northern Storehouse.

8.1.3.3 Phillpotts's historical background states that a pond is visible on a map dated to 1758 and that this was enlarged in the same year to provide a thousand-tun capacity. The expansion of the pond into the reservoir was not seen in the archaeological remains observed. These were represented in the F3 building footprint as the easterly edge of the feature. Timber shuttering lining the edge in association with a clay packing was presumably to serve as a waterproofing and shoring to stop the edges collapsing. Full excavation of the backfill of the reservoir was not practicable, although efforts were made to identify the southern edge of the feature to understand its extent and to see whether a similar arrangement of timber lining was used here. The southern boundary was seen in the footprints of the buildings to the west of the Phase C area, although the edge of the cut for the reservoir had since been truncated with no sign of any such lining. The northern and western edges of the reservoir were not seen. Alterations to the shape of the reservoir in 1779 were not discernible from the results observed.

8.1.3.4 Whilst the Wyatt designed brewery was excavated in the D2/D3 phase of works, its contemporary North Storehouse was seen to dominate the proposed F1 building footprint to the east of the Phase C area. Evans' historical background dwells more on the changes that were made by Taylor in the late 1820s to the structure that was first built in 1782. Phillpotts goes into greater detail commenting on the new approach that was adopted towards the combined functional and design unity of the site according to the plans of Wyatt and the hydraulic engineer John Smeaton. Pioneering industrial design was not so much a factor in this structure - it was designed for storage of materials for the brewery to the south (malt and hops) and presumably for the beer produced itself. This structure was seen to consist of large limestone block foundations extending to a depth of more than 3m in places. The footprint was comprised of outer walls and two parallel inner divisions with equally deep foundations. Although we know that this structure was initially designed with a first floor, with a third storey or second floor added as part of the Taylor reforms to the yard in 1830, the highest surviving remains of the structure were cobble floor surfaces that are unlikely to be from the original phase of the structure. These showed evidence of having been repaired with concrete, presumably from the building's use until the mid 20th century. Several phases of drain were also observed. Earlier, cruder drains are likely to date from the original building of the Storehouse whilst the domed culverts are possibly from Taylor's reforms to the yard and are part of a widespread attempt at managing water across the entire site. Also seen were support bases that would have been used to stop the floors from sagging, with limited evidence to

suggest they were used for supporting columns. It is particularly notable that the construction of this building marks the commencement of the ground reclamation events that were to extend the yard further into Portsmouth Harbour. Phillpotts's background to the site suggests that the new wharf that was built to the east and running parallel to the edge of the new North Storehouse was made by depositing 2000 loads of gravel taken from a nearby common. There was no evidence of gravel dumps observed although thick blue clay, that was initially thought to be a foreshore deposit, was seen to abut the foundations. It is suggested that this represents a dredged layer that was used not only to consolidate the new building footprint but also served as a 'damp coursing' to prevent water rising into the stores. Recent work on the monitoring of service trenches to the east of the eastern external wall of the building showed that similar deposits of blue clay, rather than gravels dumps, also existed here.

8.1.3.5 The reforms made to the yard in the 1830s by the new Civil Architect George Ledwell Taylor were partially observed in the remains of the Wyatt-designed North Storehouse, though only as new flooring rather than any suggestion of the additional storey that was added. The circular stains of iron columns may have been from added features designed to take the extra load associated with the new floor. The construction of the Salt Meat Store was the most significant addition to the yard recorded in this phase of site works. Seen mostly in the western half of the proposed F2 and F3 building footprints, this was built to the west of the North Storehouse. It overlaid the New Brewhouse and North Storehouse structures that were built in 1757 and 1758 with backfilling of the reservoir also required prior to construction. Several well-bonded large red brick walls were seen both within the Phase C area and beyond it in the monitoring conducted on service trenches to the west of the area. The full extent of the structure to the north was not seen and dimensions are not stated in Phillpotts's or Evans's historical backgrounds. This building was one storey high and divided longitudinally into four units with one survey medical store and one large store for salted meat. These divisions were not immediately apparent in the remains seen although several dividing walls were recorded. Floor surfaces were made from large, well-lain flagstones that were supported by pillar bases constructed in a similar fashion to those within the Wyatt Northern Storehouse that by this phase had become known as the Miscellaneous Stores. The size of this structure matched the length of the building to its east with pillar bases having been observed through the backfill of the reservoir as well.

8.1.3.6 A beef and pork store built between the Miscellaneous Stores and the Salt Meat Store during the period of the Crimean War is detailed in Phillpotts' historical background. Most of the area between the two buildings was not excavated as it lay

within the central courtyard area of the new development and was thus untouched by any of the new building footprints. Any further groundwork in this area is likely to expose building foundations as they were observed to be immediately beneath the surface of the modern overburden. To the north of the site in the F3 building footprint an arrangement of pillar bases were seen. It seems unlikely that this represents significant structural remains of the beef and pork store and may instead relate to column bases that were used to support a roof for the arcade that was erected between the two structures in 1897.

8.1.3.7 The Phase C area was therefore dominated by the Miscellaneous Stores and the Salt Meat Stores that had been joined by the roofed arcade between them. This arrangement was to remain the same until the Luftwaffe bombing campaign of the Second World War damaged both of these structures that ultimately ended in their demolition to foundation level. Post-war development of the area was dominated by the building of a Cold Store over the east of the area in the 1960s. This had been demolished in the 1990s following the sale of the site by the Ministry of Defence. Its concrete beam and pile foundations as well as several deeper cellar type features were observed to partially truncate the foundations of the 1783 Wyatt stores, but overall the impact from this structure was minimal.

8.1.4 A major aim is to gain more detailed information on the physical plan and layout of the structures and any changes that may not be reflected in the cartographic and historic sources. It is hoped that this will add to our knowledge of the evolution of the buildings and their subsequent uses.

8.1.4.1 Historical cartographic sources are available for all the recognised phases of the development of the Victualling Yard. These have provided an invaluable source of information for separating and isolating discrete features that were uncovered during the works. Outlines of the external walls of the structures were detailed as well as internal divisions and specifics about the functions of rooms such as what goods were stored where. This has proved very useful in identifying buildings. There is however some confusion relating to the remains of the Beerstore seen on the 1716 map and those of the overlying 1757 and 1758 New Brewhouse and North Storehouse. With the absence of more clearly defined stratigraphic relationships and the lack of dateable masonry remains from such features, establishing the order of buildings is made difficult. The decision to assign certain remains to the phases that have been used has been based on limited stratigraphic evidence as well as a comparison with other structural components observed and recorded by the author in previous phases.

8.1.4.2 Whereas the historical maps have provided excellent evidence for the identification of buildings, the results obtained from the excavation serve to provide a definitive record of the exact spatial location of each structure and their relation to others. This has proved invaluable in ascertaining where new buildings have directly overlain others.

8.1.4.3 The changing uses of the buildings exposed in these works are best understood not necessarily by modifications to the structures recorded in the excavations but rather from the historical background. Broadly speaking, the Victualling Yard evolved from a small family brewery business that supplied the navy with beer, through to the development of brewing scale and technology on site and then the storage of salted meats and other provisions following the cessation of the naval beer ration. Specifically-made brewery buildings were identified as the earliest phase of activity on site. Unlike the brewery excavated in the D2/D3 excavations, these structures did not have the intended function of the building incorporated into their design. However, two heavily truncated circular floor surfaces seen towards the central southern area of the F2 building footprint did suggest an industrial function that may be related to the brewing industry.

8.1.4.4 Later buildings on the site were used primarily for storing materials that were entering the yard for processing, such as malt and hops for the breweries, as well as for transporting goods from the yards. For this reason, they were positioned closer to the waterfront, allowing for easy access to ships. As these buildings were used for storage with no specific industrial activity occurring within them, changes to their function in terms of what was stored within them was not immediately obvious from the remains recorded.

8.2 REVISED RESEARCH QUESTIONS

8.2.1 The following additional research questions were suggested by the results of the archaeological investigation.

8.2.2 How much ground was reclaimed prior to construction of the building that fronted Portsmouth Harbour? To what extent was the layout of the harbour changed as a result of ground reclamation and the building of wharves for loading the supplies of the Victualling Yard?

8.2.2.1 Thick blue clay was recorded abutting the limestone foundation walls of the Wyatt designed Northern Storehouse, later known as the Miscellaneous Stores. This was firstly thought to represent foreshore alluvial clays that had been deposited on the shoreline. Attempts to locate a construction cut through the clay for the foundation walls were unsuccessful and fragments of red brick and tile were observed within the

clay. It is probable that, with the absence of a construction cut, the clay was deposited at a later date to the construction of the foundations. Blue clay was seen throughout the interior of the Miscellaneous Stores and it is suggested that this building marks the first structure observed in the Phase C works that was made on reclaimed ground. Historical cartographic sources and written sources describe the building of a stone quay that extended towards the northeast from the T-shaped Beerstorehouse structure and fronted the sea. This would have been beneath the Miscellaneous Stores and would have marked the previous waterfront. No evidence of this quayside was seen in the Phase C excavations although whether or not any of it remains beneath the blue clay is not known.

8.2.2.2 It is likely that the blue clay represents the product of dredging the foreshore and depositing the material amongst the foundations of the new buildings. This primarily served as a means by which the yard was extended into the channel by consolidating the foundations of the structure. The impermeable nature of the clay also meant that it was very unlikely for the reclaimed land to become saturated - an important consideration considering the proximity to the fluctuating tides of the Solent estuary and groundwater flows leading to the sea.

8.2.2.3 The clay used for reclaiming land from the sea was seen to extend as far as the granite sea wall to the east of the Miscellaneous Stores¹⁷. Phillpotts's historical background describes the wharf that was built in front of the new stores as being built upon 2000 loads of gravel that were taken from the site of the North Meadow Buildings. Observations made on the Brewhouse Square phase of works did not record any dumps of gravel, but rather, more clay extending from the eastern wall and abutting a red brick wall positioned directly behind the current day granite sea wall¹⁸. This represents the wharf built by the Rennies as part of the Taylor reforms to the yard in 1828 rather than the one that Wyatt had designed to serve his stores. Again, Phillpotts' historical background states that a large channel was dug in front of the wall where estuarine mud was dredged in order to reclaim the land behind it. Therefore the blue clay seen between the foundations of Wyatt's Stores represents one phase of reclamation and the clay between the eastern external wall and the current day granite wall represents a later one in the 1820s/1830s. As mentioned, a previous attempt at building a quay that ran parallel with the waterfront is likely to have either been removed prior to the construction of Wyatt's Stores or remains hidden beneath the clay. Therefore, the exact location of the previous shoreline in the west of the area was not seen. Blue clay was seen extending as far north as the northern limit of excavation. Monitoring of the excavation of service trenches to the

¹⁷ Humphrey, R. (forthcoming) *Assessment of an Archaeological Excavation at the Stormwater Attenuation Tank at Brewhouse Square at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology, unpublished report

¹⁸ *ibid.*

south of the Phase C area revealed a gradient that marked natural stratigraphy to the south and the reclaimed clay to the north. Several timber piles were seen extending east-west along this edge and suggest an attempt at revetting to consolidate the reclaimed land.¹⁹ Overall, the dimensions of the reclaimed land, where seen, are approximately over 90m north-south by greater than 23m east-west.

8.2.3 Was there any evidence of earlier wharves, docks, revetments or harbour-side features beneath the reclaimed land that was dumped on the shoreline in order to build the 18th-century features?

8.2.3.1 The 1757 and 1758 New Brewhouse and North Storehouse are known from historical sources to have had a stone quayside that fronted the harbour that extended to the northeast. The partial remains of these structures observed in the proposed F2 building footprint did not show such a feature, probably as the location was too far to the south. It is most likely that this quayside was situated beneath the western half of the Wyatt-designed Miscellaneous Stores. The methodology employed in this area did not allow for ground reduction in order to see what lay beneath the reclaimed land upon which this building was constructed. It therefore remains a possibility that part of this quayside wall exists and demarcates the previous extent of the waterfront.

8.2.3.2 An earlier timber quayside was seen in works to the south of Phase C, in the area known as Brewhouse Square²⁰. Monitoring of service trenches between the two phases suggested the strong likelihood that this substantial timber feature consisting of piles, anchors, land ties and sheathing continued to the north where it potentially existed beneath the blue clay seen in the proposed F1 building footprint.

8.2.4 What construction techniques were used in laying the foundations for these buildings? How did the builders of the time overcome the problem of flooding from both groundwater and tidal surges?

8.2.4.1 The Samuel Wyatt-designed North Storehouse (later to become the Miscellaneous Stores) of 1783 was the only structure in the Phase C area of works that was seen to be built upon reclaimed land. As mentioned, natural orange-brown gravel and green-yellow clay was seen to the west of the western external wall and it is surmised that this represents the approximate location of the previous shoreline. Observation of test slots dug up against the limestone foundations of this structure showed that they extended to a depth in excess of 3m in places. At the very base of the foundations

¹⁹ Humphrey, R. (2009) *Assessment of an Archaeological Excavation at the Stormwater Attenuation Tank at Brewhouse Square at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology, unpublished report

²⁰ *ibid.*

coarse, sandy-gravels were observed to underlie the blue clay that was used for reclaiming the land. It is suggested that these sandy-gravels represent natural foreshore and estuarine deposits upon which the foundation walls were originally positioned. It is not known whether an outer sea defence wall was built prior to these foundations having been laid. If so, an outer wall would have served as a cofferdam, preventing the tide entering the working area, and presumably keeping it dry enough to build upon. A red brick wall seen immediately behind the present day granite wall (built by the Rennies in the 1820s/2830s) seems unlikely to have served as such a cofferdam - the mortar of a brick wall would probably not have dried in the time space between high and low tides. Therefore, it seems that only a large stone block wall or timber structure that required no drying time for mortar would have been capable of serving such a purpose. No indication of such a feature was observed.

8.2.4.2 Compared to tidal surges, the effects of groundwater flowing towards the channel would have been negligible. Observations on the excavation of a pumping station²¹ between the eastern external wall of the Miscellaneous Stores and the granite sea wall recorded a crude timber box drain that was positioned in the middle of the clay, and leading towards the sea. This may have served as a temporary drain that channelled any ground water away from the working area in an attempt to keep it dry.

8.2.5 Is the blue alluvial clay seen to abut wall foundations in the F1 footprint redeposited alluvial material, used as waterproofing for the building, or did it occur naturally in these areas?

8.2.5.1 Blue clay used between the foundations represents dredged foreshore mud and clays that were dumped as reclaiming material. Its impermeable nature was surely beneficial in ensuring that water from both the tide and groundwater flows did not rise up into the stores and potentially damage both the structure and the material stored within it. Although the clay was mostly clean, there were occasional fragments and bands of ceramic building material seen throughout it. Whether these were purposefully deposited in an attempt to add a degree of structural integrity to the reclaimed land or if they were simply dumped waste material is not known. It is also unknown whether a cofferdam type structure, such as the present day granite sea wall, or alternatively a timber structure was used to keep the tide out of the area when construction work on the Miscellaneous Stores was taking place. This in itself raises questions as to whether the technology existed at the time to build a dam capable of keeping the tide from inundating the working area in order that building could take place. Questions are also raised as to how such a massive volume of clay could have been lifted without the mechanised diggers that are commonly used today.

²¹ *ibid.*

8.2.6 How does the Wyatt-designed storehouse compare to other Wyatt designed buildings in the Victualling Yard and elsewhere? Are the architectural principles that he aspired to and witnessed in the brewery building excavated in the D2/D3 area observed in this structure?

8.2.6.1 The brewery excavated in the D2/D3 phase of works represented a revolutionary change in the design of such structures on the site and embodied the changing attitudes of architects at the time of the Industrial Revolution. Wyatt was famously involved with the more 'polite' architecture of the time - stately homes and mansions for high society. His approach to the remodelling of the site was not restricted to the building of the brewery, although this is by far the best example of his attempt to combine architectural and functional unity across the site. Previous brewery buildings simply resembled warehouses and sheds with ancillary buildings containing different parts of the brewing process. Wyatt's brewery was on two floors and aimed to carry out all of the brewing cycle under one roof. Efficiency was key and wastage designed to be minimal, a reflection of the vastly increased number of paid sailors who the crown were directly responsible for feeding and watering in the late 18th century. Whereas these considerations were clearly visible in a building involved with a complex industrial process, it is perhaps not so surprising that these were not immediately observable in his contemporary store.

8.2.6.2 Phillpotts's historical background to the site suggests that the first floor of these stores were modified so that malt and hops could be stored on the first floor. A stone wharf created to the east of the external wall was made in order to facilitate the loading and unloading of ships. It would seem, however, that it is simple common sense to have the ships carrying and delivering your supplies as close to the stores, and this does not necessarily represent a changing attitude towards the architectural functionality of the site. Therefore, evidence of Wyatt's visionary design skill was not witnessed in the North Storehouse.

8.2.7 What was contained within the storehouses and how important was it to have these positioned close to the waterfront?

8.2.7.1 Ships leaving from Portsmouth Harbour might be expected to be at sea for periods of years. Receiving supplies as fresh as possible was a high priority. Therefore, it was essential to load the ships with fresh material. The same applies to receiving the raw materials that were used for brewing on site. During the period of 1783 to 1830, the navy still operated a beer ration for men at sea. Malt, hops and yeast would have been required for the brewing processes. These could have been transported to the

stores on the site from either the land or sea but were required to be close to the actual brewing operations of Wyatt's new brewery.

8.2.7.2 In addition to the raw and end products of the brewing industry, the staple foods of sailors were salt beef, pork and stockfish and supplemented by bread or biscuits, peas, butter, cheese, flour, raisins, oatmeal and suet.

8.2.7.3 As the naval beer ration ended, Wyatt's brewery continued to produce beer although not for use at sea. The Northern Storehouse or Miscellaneous Stores as it became known was used to store meat, cheese, butter, vinegar, suet, wine and spirits on the ground floor; tea, tobacco, malt, hops and peas on the first floor; and bread in the new second floor. In 1911 there were also workshops for implement and hammock making and a fire 'manual' house²².

8.2.8 To what extent were materials reused in the construction of overlying buildings?

8.2.8.1 The earliest phase of buildings seen in Phase C, both in the evaluation and excavation work, were built using medium to large-sized crudely worked limestone blocks. These were also seen in the early buildings recorded in the D1/D2/D3 phases. In Phase C this is represented by the Beerstore, Maltloft and Stables that dated to before 1716. Whilst truncation by later buildings had removed much of the foundations of these structures, the large Samuel Wyatt-designed stores of the 1780s measured almost 100m long by 25m wide. It is unlikely that foundation material would have been available to use in these foundations that often extended to a depth of between 2m and 3m. Therefore, whilst there is the possibility that some material was reused, an additional source of stone would have been required.

8.2.8.2 Reuse of red bricks in later features was only seen in the circular brick floor that was part of the 1757 and 1758 structures. An abundance of local brick fields and kilns would have been able to supply new, fresh bricks for the later buildings.

8.2.8.3 Other materials on site that could have potentially been reused include timbers from shipwright's yards used for the revetment that bordered the reservoir and flagstones used in the floors of the Salt Meat Store and Miscellaneous Stores. Whilst there is a strong possibility of the former, the latter is less likely considering the size and quality of the later floors of the Salt Meat Store. Cobbles used in the Taylor reforms to the Miscellaneous Stores could possibly come from the 1750s brewery and beerstore that were demolished to make room for the Salt Meat Store.

²² Phillpotts, C. (2002) *Royal Clarence Yard and St George Barracks North Historical Study*.

8.2.9 Is the evolution of buildings of the Victualling Yard visible as changing construction techniques and styles?

8.2.9.1 Buildings assigned to the pre-1716 phase of brewery buildings on the site were recorded as being built upon crudely worked limestone block foundations. These were less substantial than the foundations of the later 18th-century structures seen in the proposed F1 building footprint. Bonding these blocks was a soft lime mortar. Fine gravel dumps overlain by red clay and badly truncated flagstone floors represented the interior surfaces of these buildings. Truncation as a result of repeated building over in these areas had left them badly damaged although an impression of being quite poorly built was also observed. This is perhaps explained by the fact that these buildings were not designed to produce beer on a large scale: the brewery that Captain Henry Player inherited was a family business not intended to supply the numbers required from later buildings.

8.2.9.2 The New Brewhouse and North Storehouse built in 1757/1758 were only recorded as fragmentary remains in the proposed F2 building footprint. Here, however, their flagstone and cobbled floors appeared to have been built to a higher quality and degree of workmanship. This may have reflected the increasing importance of the site and the increased volume of beer production that was a direct result in the growth of the navy and the responsibility of feeding and watering men at sea. Foundations from these structures were lacking, so comparison with those of the earlier phase is not viable. Their absence is explained by the concentration of building activity in this area of the site as well as the potential reuse of materials for other structures. It is unknown what construction methodology and technique was used to build the stone quay associated with these structures as it was not observed. The construction of the reservoir, also assigned to this phase, did not use any comparable building techniques with other structures: it is likely to have engulfed the earlier pond that it was built around and it not known whether this shared a similar timber-lined arrangement.

8.2.9.3 The foundations of the Wyatt-designed 1783 Northern Storehouse were made from considerably larger and more regularly hewn blocks of limestone than earlier foundations observed across the site. This was necessary as the building was made on reclaimed land that would have been under considerable stresses from both the tide and the moving of material that it was built upon. The decision to build this structure on reclaimed land marks the expansion of the site and the building of a quay with deep water moorage that allowed the easy movement of materials both on and off the wharf. This was used for storing the beer that was produced by Wyatt's brewery as well as the malt and hops that were needed for the brewing

process. This structure was also significantly larger than anything in this area of the site before - at over 90m in length and 23m in width.

8.2.9.4 Although the naval beer ration ceased in the 1830s, the Wyatt brewery continued to produce beer up until the 1850s. However, the North Storehouse that presumably stored this beer for loading on the adjacent wharf began to be used for other provisions. Phillpotts' notes in his historical background that in 1830 the building stored meat, cheese, butter, vinegar, suet, wine and spirits on the ground floor; tea, tobacco, malt, hops and peas on the first floor; and bread in the new third storey. However, as stores, there is little difference structurally between one that it is created to keep beer and one that is created to keep food.

8.2.9.5 The Salt Meat Store was built directly to the west of the Miscellaneous Stores in the 1830s. Unlike the Miscellaneous Stores, this was constructed on well consolidated natural clays and gravels. Although the building was only one storey high, substantial red brick foundations, as opposed to limestone, were made. It is notable that a contemporary building built over the site of the original brewery in the D1 phase of works, had substantial limestone footings. This may have been as this building was more than one storey high and so required the extra structural integrity associated with deeper foundations. This building represents a structure purposefully designed not to be used in any part of the brewing industry, a marked transition from earlier buildings. This structure was well made although this is not necessarily a reflection of its proposed use for storing salted meat, survey and medical equipment.

8.2.9.6 The First World War had little effect on the yard. Bomb damage to the Salt Meat and Miscellaneous Stores in the Second World War led to their demolition and the erection of a Cold Store in the Phase C area in the 1960s. This used modern construction techniques although the storage of naval food supplies was very much the same function as the 1830s Salt Meat Store.

8.2.10 What was the extent of Taylor's reforms to the yard in the late 1820s?

8.2.10.1 Taylor aimed to continue the reformation of the Victualling Yard as envisioned by Wyatt in the 1780s. This included adding a second storey onto the Northern Storehouse/Miscellaneous Stores as well as building the mirrored structure to the north that became the bakery and granary complexes. Whereas these structures are easily recognisable, the changes that were made to the Miscellaneous Stores were not quite as perceptible in the archaeological remains observed. It is presumed that the cobbled floor surfaces represent the replacements that Taylor made. This is because they appear in isolation with no earlier features below or later features above them. There is also evidence of repairs having been made using

concrete, suggesting that this floor was in use up until the mid 20th century when it was bomb damaged. Several cobbles and flagstones that were placed upon the support bases between the foundations of the building showed a circular iron stain. It is probable that these relate to cast iron columns, similar to ones still visible today that support the granary and were used to add the necessary structural integrity required to safely support the new second floor.

8.2.10.2 Taylor's other large-scale project was the building of the Salt Meat Store. This was a single storey building built to the west of the Miscellaneous Stores. The remains of the earlier 18th-century structures relating to the brewing industry were seen beneath the Salt Meat Stores foundations and serve as a useful indication of how the focus of the yard's activities shifted from brewing to the storage of meat and other supplies.

8.2.10.3 The network of circular brick culverts seen across the area, particularly within the proposed F1 and F3 building footprints may represent the improvements that Taylor made to the site. The earliest drains were noted as being made in more of a box style, with square sides with an arch over the top of them. The later walls of the Salt Meat Store are seen to truncate these walls, as well as some of the circular drains. Some of the latest circular drains are very well made, although dating of the bricks from these features is somewhat inconclusive.

8.2.11 What was the extent of the damage caused by the Luftwaffe bombing campaign in the Second World War?

8.2.11.1 Both the Salt Meat Store and the Miscellaneous Stores were sufficiently damaged to render them irreparable. These two buildings and the arcaded roof between them dominated the Phase C area at this time. It is not known whether either were the victim of a direct bomb strike or whether localised bombing and the subsequent spreading fire caused them to be damaged sufficiently to warrant their demolition. The highest surviving structural remains of each building within the excavation area was represented by the floor surfaces of the ground floor and the tops of the walls built upon foundations at a similar height. It is not known whether truncation to this level was the direct result of the bombing raids or the demolition that followed afterwards, prior to the building of the 1960s Cold Store. A small fragment of the north-east corner of the Miscellaneous Store survives in the existing Granary²³.

8.2.12 What damage was caused to the underlying archaeological resource by the construction of the Cold Store in the mid 20th century?

²³ Wilson, M. & Wheeler, R., (2008) *Royal Clarence Yard, Gosport, Hampshire: Historic Building assessment. The Architectural Significance of the Nib of the Granary*. Gifford, unpublished report

8.2.12.1 The Cold Store was built in the 1960s and used both reinforced concrete piles and ground beams as part of its foundation design. It was positioned over the approximate location of the Miscellaneous Stores. Damage was caused to the eastern external wall of the stores as a result of these foundations, although for the most part they survived well. Several shallow basement features from the Cold Store was also observed but these were positioned between the walls and appeared to only truncate the redeposited blue clay that was used for reclaiming the land.

8.2.12.2 Whether the truncation that was caused to the tops of the walls was the direct result of the bomb damage that occurred to the Miscellaneous Stores during the Second World War or the subsequent demolition and levelling is not clear, although the uniform height to which the tops of the foundations were graded would suggest the latter.

9 IMPORTANCE OF THE RESULTS AND PUBLICATION OUTLINE

9.1 IMPORTANCE OF THE RESULTS

9.1.1 The Phase C excavations have provided information on the location, date and function of buildings associated with the brewery and Victualling Yard from the beginning of the occupation of the site in the post-medieval period. The results obtained are directly comparable to the information provided by historical cartographic sources as well as historical studies of the site such as those produced by Phillpotts and Evans. Additionally, the excavation revealed significant findings in relation to the nature of ground reclamation across the site and the changes that were made to the outline of the coast as a result of the expansion of the yard.

9.1.2 Structural components of buildings contemporary with the earliest phase of Captain Henry Player's brewing operations were uncovered. These are likely to represent the Beerstore, Maltloft and stables that were positioned to the north of the main brewery building (Phase D1). The construction of a new brewery in 1757 and then elsewhere on the site in the 1780s are excellent indicators of the growing size of the navy and its role on an international level. Specifically, the responsibility and importance of brewing quality beer that could be kept for months at sea would allow for the navy to fulfil its obligations with regards to the expansion and protection of British imperial interests around the world.

9.1.3 As with most intensely occupied sites, the survival of the earliest features has usually suffered as a result of continued demolition and rebuilding on top of them. To an extent, the pre-1716 structures were badly damaged by building the New Brewhouse and in turn, the Salt Meat Store above them, but the decision to expand the yard further into Portsmouth Harbour for the purpose of creating a large storehouse with adjacent wharf did not have such a destructive effect on underlying archaeological remains.

9.1.4 The most significant remains are the foundations to the 1783 Wyatt-designed Northern Storehouse that would later become the Miscellaneous Stores. The scale of this building was immense in comparison with others on the yard with the exception of his Brewery and it was only during the Taylor reforms of the 1830s that Wyatt's full vision was fully completed with the building of the granary and bakery structures. This was built on reclaimed land, where thick blue alluvial clay was dredged from the harbour then dumped both inside and outside of the foundations. Inside, it would act as consolidation and damp coursing for the new building and outside it was used to reclaim more land towards the seafront. This expansion of the yard into the channel was a direct result of increase in naval personnel.

- 9.1.5 The cessation of the naval beer ration in the 1830s did not cause the brewery excavated in the D2/D3 area, for which the buildings of the Phase C excavations were intrinsically linked, to stop producing beer. Historical studies state that beer was still produced for hospitals and the sick. However, no new structures relating to the storage of malt, hops, beer or brewing itself were made. Wyatt's Northern Storehouse became the Miscellaneous Store where items such as meat, cheese, butter, vinegar, suet, wine and spirits on the ground floor; tea, tobacco, malt, hops and peas on the first floor; and bread on the third floor were kept. This was complemented by a large Salt Meat Store that was built immediately to the west.
- 9.1.6 Water supply and drainage were an important consideration especially for the brewing industry. Wyatt's visionary plans for the site also required a functioning drainage system where clean water would be allowed to cross the site from reservoirs located to the northwest of the site. Substantial brick drains used for supplying fresh water and foul water were uncovered across the site.
- 9.1.7 There was little evidence represented by finds. Whilst it is common to find pottery and bone remains from occupation sites, the absence of this is put down to the efficiency of the military in utilising materials and limiting wastage.
- 9.1.8 Ceramic building material assessment allowed for confirmation of date ranges that were already proposed by analysis of historic cartographic sources. The limestone foundations that were seen from earlier phases of were constructed at a time when the usage of this material and opening of quarries specifically for this purpose is well documented. Much of this stone was potentially reused in later phases of the site. There was a suggestion of reuse of many bricks as well as the identification of several unique types that are suggested to have been produced as one-offs on the order of the Admiralty.
- 9.1.9 Natural stratigraphy was represented across by site by loosely compacted orange-brown flint gravel as well as soft green-yellow sandy-clays.
- 9.1.10 Historical cartographic sources were first used in this project for the targeting of evaluation trenches. Whilst there are potential dangers of putting too much faith in what one might expect to find from maps as opposed to digging the remains and finding out first hand, their help in this instance has proved incredibly useful. Generally speaking, the methodology worked well in identifying and labelling the structures that were found. Interpreting this information with a consideration of stratigraphy and dating evidence, there is a high degree of confidence and certainty in identifying buildings as belonging to a discrete phase. That is not to say that the methodology was faultless from an archaeological research perspective. Although not

practical, it would have been beneficial to remove the clay backfill of the miscellaneous stores in order to ascertain whether the quay wall from the 1757/1758 structure still existed and therefore gain more information on the nature of the shoreline before land was reclaimed. It would have also been useful to excavate more of the backfill of the reservoir so that more information could be attained regarding its depth and any lining or associated drainage works for supplying the water systems across the site.

9.2 PUBLICATION OUTLINE

- 9.2.1 The results of this investigation are intended to be published as part of a synthetic monograph to be produced by Gifford, which will combine all phases of the historical research and archaeological fieldwork at the Victualling Yard. These publication plans are currently under development.

10 CONTENTS OF THE ARCHIVE

10.1 PHASE C (B1790D)

10.1.1 PAPER AND PHOTOGRAPHIC ARCHIVE

Type		Number
Records	Context sheets	245
	Plan sheets	134
	Section sheets	50
Photographs	Colour slides (35mm)	128
	Black and White prints (35mm)l	128
	Digital shots	290

10.1.2 ARTEFACTS

Type	Number
Glass	1 bag
Animal Bone	1 bag
Ceramic building material	29 bags

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12 BIBLIOGRAPHY

Bradley, T. (2007) *A Written Scheme of Investigation for an Archaeological Evaluation (Phases C) at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report.

Bradley, T. (2007) *A Written Scheme of Investigation for an Archaeological Excavation and Watching Brief (Area C) at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report.

Cotswold Archaeology (2003) *Royal Clarence Yard, Gosport, Hampshire, Archaeological Excavation Phase Areas B and C and Watching Brief Areas C and D*. Cotswold, unpublished report 02109

Evans, D. (2000) *The Granary/Mill/Bakery Complex at the Royal Clarence Yard, with the Hydraulic House and Slaughterhouse*. Gifford, unpublished report

Humphrey, R. (2007) *An Archaeological Evaluation of land at Royal Clarence Yard, Gosport, Hampshire: Phase D1, D2 & D3*. Pre-Construct Archaeology Ltd, unpublished report.

Humphrey, R. (2007) *An Archaeological Evaluation of land at Royal Clarence Yard, Gosport, Hampshire: Phase C*. Pre-Construct Archaeology Ltd, unpublished report.

Humphrey, R. (2008) *Assessment of an Archaeological Excavation at Phases D1 and D2/D3 at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report.

Humphrey, R. (forthcoming) *Assessment of an Archaeological Excavation at the Stormwater Attenuation Tank at Brewhouse Square at Royal Clarence Yard, Gosport, Hampshire*. Pre-Construct Archaeology Ltd, unpublished report.

Moore, H. & Shelley, A. (2007) *Royal Clarence Yard - Tender Specification for an Archaeological Evaluation- Phase C*. Gifford, unpublished report. 13966/R118.

Moore, H. & Shelley, A. (2007) *Royal Clarence Yard - Written Scheme of Investigation for a Strip, Map and Sample Excavation of Phase C*. Gifford, unpublished report 13966/R119.

Phillpotts, C. (2002) *Royal Clarence Yard and St George's Barracks North Historic Study – Revision D*. Unpublished report.

Wilson, M. & Wheeler, R., (2008) *Royal Clarence Yard, Gosport, Hampshire: Historic Building assessment. The Architectural Significance of the Nib of the Granary*. Gifford, unpublished report 13966/R122.

APPENDIX 1: CONTEXT INDEX

Context No.	Plan	Section	Type	Description	Interpretation	Date	Phase
1600	150/210-215 F1/2	N/A	Masonry	Redbrick masonry	Western wall of 1783 Wyatt Stores	Post-medieval	4
1601	160/205-245 F1/2	N/A	Masonry	Limestone foundation and redbrick	Interior spine wall of 1783 Wyatt Stores	Post-medieval	4
1602	165/205-280 F1/2	N/A	Masonry	Limestone foundation and redbrick	Interior spine wall of 1783 Wyatt Stores	Post-medieval	4
1603	175/205-285 F1/2	N/A	Masonry	Limestone foundation and redbrick	Eastern wall of 1783 Wyatt Stores	Post-medieval	4
1604	165-175/265-270 F1/2	N/A	Masonry	Redbrick culvert/drain	Internal drain from 1783 Stores	Post-medieval	4
1605	165/220-275 F1/2	N/A	Masonry	Redbrick culvert/drain	Internal drain from 1783 Stores	Post-medieval	4
1606	160-175/225-230 F1/2	N/A	Masonry	Redbrick culvert/drain	Internal drain from 1783 Stores	Post-medieval	4
1607	155/210-215 F1/2	N/A	Masonry	Redbrick culvert/drain	Internal drain from 1783 Stores	Post-medieval	4
1608	170/265 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1609	170/260 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1610	170/260 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1611	170/255 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1612	170/255 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1613	170/250 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1614	170/250 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4

1615	170/245 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1616	170/240 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1617	170/235 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1618	170/235 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1619	170/230 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1620	170/230 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1621	170/225 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1622	170/225 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1623	170/220 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1624	160/220 F1/2	N/A	Masonry	Cobblestone floor	Re-laying of stores floor	Post-medieval	5
1625	160/225-230 F1/2	N/A	Masonry	Cobblestone floor	Re-laying of stores floor	Post-medieval	5
1626	165/260 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1627	165/240 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1628	165/240 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1629	165/230 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1630	165/230 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1631	165/225 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4
1632	165/220 F1/2	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post-medieval	4

1633	165/215 F1/2 170-175/210-220	N/A	Masonry	Timber raft with redbrick and slab base	Internal support between walls of 1783 Stores	Post- medieval	4
1634	F1/2 135-140/200-205	N/A	Masonry	Cobblestone floor	Interior floor from 1783 Stores	Post- medieval	5
1635	F1/2	N/A	Masonry	Flagstone floor	1758 Stores	Post- medieval	3
1636	135/210-215 F1/2	N/A	Masonry	Limestone wall	Pre-1716 Brewery stores	Post- medieval	2
1637	140/210 F1/2	N/A	Masonry	Cobblestone floor/wall	1758 Stores	Post- medieval	3
1638	140/210-215 F1/2	N/A	Masonry	Cobblestone floor/wall	1758 Stores	Post- medieval	3
1639	135-145/205 F1/2	N/A	Masonry	Redbrick wall	1758 Stores	Post- medieval	3
1640	145/200-210 F1/2	N/A	Masonry	Redbrick wall	Salt Meat Store Eastern External Wall	Post- medieval	5
1641	145/210-215 F1/2	N/A	Masonry	Redbrick wall	Salt Meat Store Eastern External Wall	Post- medieval	5
1642	120-145/205-210 F1/2	N/A	Masonry	Redbrick wall	Salt Meat Store Interior Wall	Post- medieval	5
1643	145/205 F1/2	N/A	Masonry	Redbrick wall	Internal wall of Salt Meat Store	Post- medieval	5
1644	135/205 F1/2	N/A	Masonry	Flagstone	Pillar base or stanchion	Post- medieval	3
1645	135/205 F1/2	N/A	Masonry	Limestone and redbrick wall	Pre-1716 Brewery stores	Post- medieval	2
1646	130-135/205 F1/2	N/A	Fill	Backfill	BF of cut [1662] for pillar base [1661]	Post- medieval	5
1647	130/205 F1/2	N/A	Fill	Backfill	BF of cut [1664] for pillar base [1663]	Post- medieval	5
1648	130/205 F1/2	N/A	Fill	Backfill	BF of Drain [1658]	Post- medieval	5
1649	135/215 F1/2 160-175/280-285	N/A	Masonry	Flagstone	Pillar base or stanchion	Post- medieval	5
1650	F1/2	N/A	Masonry	Cobblestone floor	Interior floor from 1783 Stores	Post- medieval	5

1651	125-130/210 F1/2	N/A	Masonry	Flagstone floor	Floor from interior of Salt Meat Store	Post-medieval	5
1652	VOID	VOID	VOID	VOID	VOID		VOID
1653	125/210-215 F1/2	N/A	Masonry	Flagstone	Pillar base or stanchion	Post-medieval	5
1654	120/210 F1/2	N/A	Masonry	Redbrick stanchion	Pillar base or stanchion (flag removed)	Post-medieval	5
1655	120/210 F1/2	N/A	Masonry	Redbrick base	Crude pillar base or a wall buttress for [1642]	Post-medieval	5
1656	125/210 F1/2	N/A	Masonry	Redbrick drain	Drain from Salt Meat Store	Post-medieval	6
1657	130/205 F1/2	N/A	Masonry	Limestone wall	Pre-1716 Brewery stores	Post-medieval	2
1658	130/205 F1/2	N/A	Masonry	Yellow brick drain	From later use of Salt Meat Store	Post-medieval	6
1659	125-135/200 F1/2	N/A	Masonry	Redbrick wall	Southern external wall of Salt Meat Store	Post-medieval	3
1660	130-135/200-205 F1/2	N/A	Masonry	Redbrick floor	Circular + truncated by later pillar bases	Post-medieval	3
1661	130-135/205 F1/2	N/A	Masonry	Flagstone	Pillar Base or stanchion	Post-medieval	5
1662	130-135/205 F1/2	N/A	Cut	Square Cut	Cut for flagstone base [1661]	Post-medieval	5
1663	130/205 F1/2	N/A	Masonry	Flagstone	Pillar Base or Stanchion	Post-medieval	5
1664	130/205 F1/2	N/A	Cut	Square Cut	Cut for flagstone base [1663]	Post-medieval	5
1665	125/205 F1/2	N/A	Masonry	Flagstone	Pillar Base or Stanchion	Post-medieval	5
1666	125/205 F1/2	N/A	Masonry	Slate trough feature	Slate drain or collection basin	Post-medieval	5
1667	125/205 F1/2	N/A	Masonry	Redbrick floor	Same as [1660]	Post-medieval	3
1668	145/210 F1/2	N/A	Masonry	Redbrick wall	Related to External Salt Meat Store Wall	Post-medieval	3

1669	145/215 F1/2	N/A	Masonry	Redbrick wall	Related to External Salt Meat Store Wall	Post-medieval	3
1670	150/210 F1/2	N/A	Masonry	Redbrick pillar base	Late 18th century stanchion/foundation	Post-medieval	6
1671	/	N/A	Layer	Redeposited blue clay	Sealant for North Storehouse	Post-medieval	4
1672	/	N/A	Layer	Sandy-gravel	Naturally occurring foreshore gravels	Post-medieval	1
1673	/	N/A	Layer	Coarse Gravel	Ground raising	Post-medieval	3
1674	F2 footprint	N/A	Layer	Demo rubble in silty-sand matrix	Ground raising	Post-medieval	2
1675	140/210 F1/2	N/A	Masonry	Cobblestone floor	From 1758 beerstores	Post-medieval	3
2000	Eval Tr 8	N/A	Cut	Linear constuction cut	Cut for brick culvert [2001]	Post-medieval	4
2001	Eval Tr 8	N/A	Masonry	Unfrogged redbrick culvert	18th-19th century drain/culvert	Post-medieval	4
2002	Eval Tr 8	S202	Fill	Brown-green silty-clay	Backfill of cut [2003]	Post-medieval	4
2003	Eval Tr 8	S202	Cut	Linear constuction cut	Linear cut- purpose not known	Post-medieval	(+)
2004	Eval Tr 8	S202	Fill	Brown-green silty-clay	Backfill of cut [2006]	Post-medieval	4
2005	Eval Tr 8	S202	Masonry	Limestone Foundation	Foundation for 1783 storehouse	Post-medieval	4
2006	Eval Tr 8	S202	Cut	Linear constuction cut	Construction cut for wall [2005]	Post-medieval	4
2007	Eval Tr 18	S207	Masonry	Limestone/redbrick wall	Foundation and wall from 1783 storehouse	Post-medieval	4
2008	Eval Tr 18	S207	Layer	Firm, grey-brown gravel	Ground raising	Post-medieval	4
2009	Eval Tr 18	S201	Layer	Firm, dark-grey sand	Ashy dump layer	Post-medieval	4
2010	Eval Tr 18	S201	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4

2011	Eval Tr 18	S201	Cut	Linear constuction cut	Construction cut for wall [2007]	Post-medieval	4
2012	VOID	VOID	VOID	VOID	VOID	VOID	VOID
2013	Eval Tr 7	S204	Layer	Firm yellow/orange/green clay	Natural clay	Natural	1
2014	Eval Tr 8	S202	Layer	Yellow-brown sandy-gravel	Ground raising material	Post-medieval	5
2015	Eval Tr 8	S202	Layer	Firm yellow-green clay	Possibly natural	Natural	1
2016	Eval Tr 5	S202	Masonry	Demolition rubble	Modern	Modern	(+)
2017	VOID	VOID	VOID	VOID	VOID	VOID	VOID
2018	Eval Tr 17	N/A	Fill	Brown clay & gravel	Modern	Modern	(+)
2019	Eval Tr 17	N/A	Cut	Linear constuction cut	Modern	Modern	(+)
2020	Eval Tr 17	S209	Masonry	Limestone foundation	Foundation for 1783 storehouse	Post-medieval	4
2021	Eval Tr 17	S209	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4
2022	Eval Tr 13	S207	Masonry	Circular yellow brick culvert	19th century brick drain	Post-medieval	4
2023	Eval Tr 13	S207	Fill	Mid-brown sandy-clay	Backfill of construction cut [2024]	Post-medieval	4
2024	Eval Tr 13	S207	Cut	Linear constuction cut	Construction cut for culvert [2022]	Post-medieval	4
2025	Eval Tr 13	S207	Layer	Orange-brown sandy-gravels	Ground raising material	Post-medieval	4
2026	Eval Tr 13	S207	Layer	Orange-brown gravelly-sand	Ground raising material	Post-medieval	4
2027	Eval Tr 4	S208	Masonry	Limestone slabs	Remnants of a floor surface	Post-medieval	5
2028	Eval Tr 4	N/A	Masonry	Limestone slabs	Remnants of a floor surface	Post-medieval	5
2029	Eval Tr 4	S208	Layer	Dark brown-red silty-clay	Bedding/leveling/ground raising	Post-medieval	5
2030	Eval Tr 4	S208	Layer	Yellow-brown clayey-silt	Sandy-gravels	Ground-raising	2
2031	Eval Tr 4	N/A	Layer	Firm dark-orange clay	Possibly natural clay	Natural	1
2032	Eval Tr 4	N/A	Layer	Orange-brown sandy-gravels	Possibly natural gravels	Natural	1

2033	Eval Tr 17	N/A	Masonry	Cobble stoned floor	From interior of 1783 storehouse	Post-medieval	5
2034	Eval Tr 17	S210	Layer	Light grey sandy-gravel	Ground raising layer	Post-medieval	4
2035	Eval Tr 17	S210	Layer	Loose, very dark grey ash	Ashy dump layer	Post-medieval	4
2036	Eval Tr 17	S210	Layer	Firm blue-brown clay	Ground raising layer	Post-medieval	4
2037	Eval Tr 17	S210	Layer	Firm red-brown sandy-gravel	Redeposited gravel	Post-medieval	4
2038	Eval Tr 4	S208	Layer	Loose dark-brown sandy-silt	Ground raising material	Post-medieval	5
2039	Eval Tr 11	S217	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4
2040	Eval Tr 11	S216	Cut	Presumed linear cut	Cut for [2042]	Post-medieval	4
2041	Eval Tr 11	N/A	Fill	Orange-brown demolition rubble	Backfill of [2041]	Post-medieval	4
2042	Eval Tr 11	S216; S217	Masonry	Limestone foundation wall	Foundation from 1783 storehouse	Post-medieval	4
2043	Eval Tr 11	S216; S217	Masonry	Unfrogged redbrick wall	Wall associated with 1783 north storehouse	Post-medieval	4
2044	Eval Tr 11	N/A	Cut	Linear construction cut	Cut for culvert [2045]	Post-medieval	4
2045	Eval Tr 11	N/A	Masonry	Unfrogged circular redbrick culvert	Drain/culvert from 18th century	Post-medieval	4
2046	Eval Tr 11	S216	Masonry	Cobble stoned floor	Floor from interior of 1783 storehouse	Post-medieval	5
2047	Eval Tr 2	S212	Fill	Firm dark green-brown silt	Backfill of construction cut [2049]	Post-medieval	3
2048	Eval Tr 2	S211	Masonry	Limestone wall foundations	Crude early wall foundations	Post-medieval	3
2049	Eval Tr 2	S212	Cut	Linear construction cut	Cut for wall [2048]	Post-medieval	3
2050	Eval Tr 2	S211	Layer	Grey-brown silty-gravel	Ground raising material	Post-medieval	6

2051	Eval Tr 2	S212	Layer	Red-yellow sand	Bedding layer for floor	Post-medieval	5
2052	Eval Tr 2	S212	Fill	Brown-red rubbly silty-clay	Backfill of cut [2054]	Post-medieval	5
2053	Eval Tr 2	S212	Masonry	Square stone machine base/fixing	Evidence of fixtures for machine	Post-medieval	5
2054	Eval Tr 2	N/A	Cut	Linear construction cut	Cut for machine base [2053]	Post-medieval	5
2055	Eval Tr 16	S214	Masonry	Redbrick culvert/drain	Drain from 18th century building	Post-medieval	4
2056	Eval Tr 16	S213	Masonry	Limestone foundation + redbrick walls	Eastern wall of 1783 Wyatt Stores	Post-medieval	4
2057	Eval Tr 16	S215	Masonry	Limestone blocks	Foundation for pillar base	Post-medieval	4
2058	Eval Tr 11	S216	Layer	Soft grey sandy-gravel	Leveling layer	Post-medieval	5
2059	Eval Tr 11	S216	Layer	Friable orange-brown sandy-gravel	Ground raising material	Post-medieval	4
2060	Eval Tr 16	S215	Layer	Hard yellow-brown mortar	Base for concrete	Post-medieval	5
2061	Eval Tr 16	S214	Layer	Firm yellow-brown crushed	Leveling layer	Post-medieval	5
2062	Eval Tr 16	S215	Layer	Mid red-brown crushed CBM	Leveling layer	Post-medieval	5
2063	Eval Tr 16	S215	Layer	Grey-brown sandy-gravel	Bedding layer for floor	Post-medieval	5
2064	Eval Tr 16	S215; S214;	Layer	Light grey-brown gravel	Ground raising material	Post-medieval	5
2065	Eval Tr 16	S215; S214;	Layer	Grey-brown gravel	Ground raising material	Post-medieval	5
2066	Eval Tr 16	S215; S214;	Layer	Red-brown gravel	Ground raising material	Post-medieval	4
2067	Eval Tr 16	S215	Layer	Loose, very dark grey ash	Ashy dump layer	Post-medieval	4
2068	Eval Tr 16	S214	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4

2069	Eval Tr 11	S216	Layer	Friable grey-brown gravelly-sand	Ground raising material	Post-medieval	4
2070	Eval Tr 11	S216	Layer	Friable orange-brown sandy-gravel	Ground raising material	Post-medieval	4
2071	Eval Tr 2	S211	Layer	Brown-red silty-clay	Ground raising material	Post-medieval	4
2072	Eval Tr 2	S211	Layer	Soft brown-yellow sand	Bedding layer for floor	Post-medieval	4
2073	Eval Tr 2	S211	Layer	Dark brown-red rubble and clay	Dump layer	Post-medieval	4
2074	Eval Tr 2	S211	Layer	Grey-brown silty-gravel	Redeposited gravel	Post-medieval	4
2075	Eval Tr 2	S212	Layer	Dark-brown rubble and clay	Dump layer	Post-medieval	4
2076	Eval Tr 2	S212	Layer	Hard brown-red rubble and clay	Dump layer	Post-medieval	4
2077	Eval Tr 2	S212	Layer	Soft brown-yellow sand	Ground raising material	Post-medieval	4
2078	Eval Tr 2	S212	Layer	Soft brown sandy-silt	Ground raising material	Post-medieval	4
2079	Eval Tr 2	S212	Layer	Red-brown silty sand	Ground raising material	Post-medieval	4
2080	Eval Tr 2	S212	Cut	Irregular shaped cut seen in section only	Unknown purpose	Post-medieval	5
2081	Eval Tr 2	S212	Fill	Hard, red clay	Fill of cut [2080]	Post-medieval	5
2082	Eval Tr 2	S212	Cut	Irregular shaped cut seen in section only	Unknown purpose	Post-medieval	5
2083	Eval Tr 2	S212	Fill	Grey-brown silty-sand	Backfill of cut [2082]	Post-medieval	5
2084	Eval Tr 16	S215	Masonry	Limestone blocks	Foundation for pillar base	Post-medieval	4
2085	Eval Tr 16	N/A	Timber	Timber raft	Base of pillar features	Post-medieval	4
2086	Eval Tr 16	N/A	Timber	Timber raft	Base of pillar features	Post-medieval	4

2087	Eval Tr 9	S219	Fill	Dark brown clayey-silt	Backfill of [2092]	Post-medieval	(+)
2088	Eval Tr 9	S219	Fill	Firm green-brown clay	Backfill of [2092]	Post-medieval	(+)
2089	Eval Tr 9	S219	Fill	Dark-brown sandy-clay	Backfill of [2092]	Post-medieval	(+)
2090	Eval Tr 9	S218	Masonry	Red brick wall	Wall from Wyatt stores	Post-medieval	4
2091	Eval Tr 9	S218	Masonry	Limestone foundation	Foundation for 1783 storehouse	Post-medieval	4
2092	Eval Tr 9	N/A	Cut	Linear construction cut	Construction cut for [2090] [2091]	Post-medieval	4
2093	Eval Tr 14	S220	Layer	Firm, dark red clayey-gravel	Ground raising material	Post-medieval	4
2094	Eval Tr 14	S220	Layer	Loose, light-grey sandy-gravel	Ground raising material	Post-medieval	4
2095	Eval Tr 14	S220	Layer	Hard, red clayey-gravel	Ground raising material	Post-medieval	4
2096	Eval Tr 14	S220	Layer	Mid-brown gravelly clay	Ground raising material	Post-medieval	4
2097	Eval Tr 14	S220	Masonry	Square redbrick pile	Pillar base built onto redeposited clay	Post-medieval	4
2098	Eval Tr 14	S220	Timber	Timber raft	Base of pillar features	Post-medieval	4
2099	Eval Tr 14	S220	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4
2100	Eval Tr 14	S220	Cut	U-shaped cut	Cut for pile [2097]	Post-medieval	4
2101	Eval Tr 10	N/A	Masonry	Unfrogged redbrick wall	Wall associated with 1783 north storehouse	Post-medieval	4
2102	Eval Tr 10	S225	Masonry	Redbrick wall	Wall associated with 1783 north storehouse	Post-medieval	4
2103	Eval Tr 10	S221	Layer	Sandy-gravel	Modern demolition rubble	Post-medieval	(+)
2104	Eval Tr 15	N/A	Masonry	Square redbrick pile	Pillar base built onto redeposited clay	Post-medieval	4

2105	Eval Tr 15	S222	Layer	Grey-brown clayey-gravel	Ground raising material	Post-medieval	4
2106	Eval Tr 12	S223	Masonry	Redbrick square pile	Pillar base built onto redeposited clay	Post-medieval	4
2107	Eval Tr 12	S223	Masonry	Limestone blocks	Foundation for pillar base	Post-medieval	4
2108	Eval Tr 12	S224	Masonry	Limestone blocks	Foundation for pillar base	Post-medieval	4
2109	Eval Tr 12	S224	Masonry	Square redbrick pile	Pillar base built onto redeposited clay	Post-medieval	4
2110	Eval Tr 9	N/A	Masonry	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4
2111	Eval Tr 15	S222	Layer	Dark grey-brown clayey-gravel	Ground raising material	Post-medieval	4
2112	Eval Tr 15	S222	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4
2113	Eval Tr 12	S223; S224	Layer	Mid-brown clayey-silt	Ground raising material	Post-medieval	(+)
2114	Eval Tr 12	N/A	Layer	Soft, dark blue-grey clay	Redeposited alluvial clay	Post-medieval	4
2115	Eval Tr 12	N/A	Layer	Yellow-brown sandy-gravel	Redeposited gravel	Post-medieval	4
2200	Phase C F3	S227	Masonry	Red brick wall	Western wall of 1783 Wyatt Stores	Post-medieval	4
2201	Phase C F3	N/A	Layer	Orange-yellow clay	Natural clay	Natural	1
2202	Phase C F3	N/A	Cut	Linear construction cut	Cut for drain [2203]	Post-medieval	4
2203	Phase C F3	N/A	Masonry	Red brick culvert	Drain from 18th century building	Post-medieval	4
2204	Phase C F3	N/A	Fill	Red-brown clay	Backfill of cut for drain	Post-medieval	4
2205	Phase C F3	N/A	Cut	Linear construction cut	Cut for wall [2206]	Post-medieval	5
2206	Phase C F3	S228	Masonry	Redbrick wall	Eastern wall of 1830s Salt Meat Store	Post-medieval	5

2207	Phase C F3	N/A	Fill	Sandy-gravels with CBM	Backfill of cut [2205]	Post-medieval	5
2208	Phase C F3	N/A	Masonry	Brick and limestone pier base	For supporting arcade roof	Post-medieval	6
2209	Phase C F3	N/A	Cut	Linear constuction cut	Cut for drain [2210]	Post-medieval	6
2210	Phase C F3	N/A	Masonry	Circular yellow brick culvert	19th century brick drain	Post-medieval	6
2211	Phase C F3	N/A	Fill	Sandy clay with CBM	Backfill of cut for drain	Post-medieval	6
2212	Phase C F3	N/A	Cut	Rectangular cut	Cut for base [2208]	Post-medieval	6
2213	Phase C F3	N/A	Fill	Grey-brown silty-gravel	Backfill of cut [2212]	Post-medieval	6
2214	Phase C F3	N/A	Masonry	Brick and limestone pier base	For supporting arcade roof	Post-medieval	6
2215	Phase C F3	N/A	Cut	Rectangular cut	Cut for base [2214]	Post-medieval	6
2216	Phase C F3	N/A	Fill	Firm grey-brown clay	Backfill of cut [2215]	Post-medieval	6
2217	Phase C F3	N/A	Cut	Rectangular cut	Cut for pier base since removed	Post-medieval	6
2218	Phase C F3	N/A	Cut	Rectangular cut	Cut for pier base since removed	Post-medieval	6
2219	Phase C F3	N/A	Masonry	Red brick pier base	For supporting Salt Meat Store	Post-medieval	5
2220	Phase C F3	N/A	Masonry	Red brick pier base	For supporting Salt Meat Store	Post-medieval	5
2221	Phase C F3	S232	Masonry	Red brick drain	18th century drain truncated by later building	Post-medieval	4
2222	Phase C F3	N/A	Masonry	Red brick culvert	Y-shaped circular brick drain	Post-medieval	5
2223	Phase C F3	N/A	Cut	Construction cut	Cut for [2222]	Post-medieval	5
2224	Phase C F3	N/A	Masonry	Red brick wall	Eastern wall of 1830s Salt Meat Store	Post-medieval	5

2225	Phase C F3	N/A	Masonry	Red brick + limestone drain	Early drain to the east of Salt Meat Store	Post-medieval	4
2226	Phase C F3	N/A	Fill	Firm clay and mortar	Backfill of cut for [2225]	Post-medieval	4
2227	Phase C F3	N/A	Cut	Linear constuction cut	Cut for early drain [2225]	Post-medieval	4
2228	Phase C F3	S232	Fill	Silty deposit	Silting up of drain [2221]	Post-medieval	5
2229	Phase C F3	N/A	Fill	Silty deposit	Silting up of drain [2230]	Post-medieval	5
2230	Phase C F3	N/A	Masonry	Red brick culvert	Continuation of drain [2222]	Post-medieval	5
2232	Phase C F3	S232	Cut	Linear constuction cut	Cut for drain [2221]	Post-medieval	4
2233	Phase C F3	N/A	Cut	Rectangular cut	Cut for base [2220]	Post-medieval	5
2234	Phase C F3	N/A	Masonry	Red brick pier base	Pier base within reservoir	Post-medieval	5
2235	Phase C F3	N/A	Masonry	Red brick pier base	Pier base within reservoir	Post-medieval	5
2236	Phase C F3	N/A	Masonry	Red brick wall	Isolated wall toward end of reservoir	Post-medieval	5
2237	Phase C F3	S231	Cut	Large rectangular cut	Cut for reservoir through natural	Post-medieval	3
2238	Phase C F3	S231	Natural	Sandy gravels	Natural gravel	Post-medieval	1
2239	Phase C F3	S231/3/4	Structure	Reservoir	18th century reservoir	Post-medieval	3
2240	Phase C F3	S233/4	Cut	Large rectangular cut	Cut for reservoir	Post-medieval	3
2241	Phase C F3	N/A	Timber	Plank	Part of reservoir lining	Post-medieval	3
2242	Phase C F3	S234	Timber	Post	Part of reservoir lining	Post-medieval	3
2243	Phase C F3	S234	Timber	Post	Part of reservoir lining	Post-medieval	3

2244	Phase C F3	S234	Timber	Stake	Part of reservoir lining	Post-medieval	3
2245	Phase C F3	S234	Timber	Stake	Part of reservoir lining	Post-medieval	3
2246	Phase C F3	S234	Timber	Stake	Part of reservoir lining	Post-medieval	3
2247	Phase C F3	S234	Timber	Stake	Part of reservoir lining	Post-medieval	3
2248	Phase C F3	S234	Timber	Post	Part of reservoir lining	Post-medieval	3
2249	Phase C F3	S234	Timber	Stake	Part of reservoir lining	Post-medieval	3
2250	Phase C F3	S233/4	Layer	Grey/green clay	Redeposited clay used as lining	Post-medieval	3
2251	Phase C F3	S233/4	Layer	Black silty gravel/organic material	Debris accumulation in reservoir	Post-medieval	3
2252	Phase C F3	S232	Fill	Mid grey clay	Fill of cut [2232]	Post-medieval	5
2253	Phase C F3	N/A	Masonry	Red brick wall	Western wall of 1831 Salt Meat Store	Post-medieval	5

APPENDIX 2: CERAMIC BUILDING MATERIAL ASSESSMENT

By Kevin Hayward

Introduction and Aims

A small brick, stone and tile assemblage (29 examples, 72.4kg) was retained from excavations and evaluation trenches associated with Phase C, Royal Clarence Yard, Gosport, Hampshire. These were examined at Pre-Construct Archaeology Ltd as part of an assessment of the building material.

This assessment serves a number of purposes.

- The identification (under binocular microscope) of the fabrics and forms of the brick assemblage.
- The identification of the geological character and (where possible) the geological source of the stone.
- In each section - identify any interesting or unusual pieces that warrant retention.
- A phase summary relating the fabrics and forms of the brick types to the different workshops and activity phases at the site.
- The compilation of a stone catalogue (Gosport C.cat), which accompanies this assessment.
- Rationalisation of the brick assemblage Gosport and recommendation for further analysis.

Methodology

The building materials were examined using the London system of classification with a fabric number allocated to each object. The application of a 1kg mason's hammer and sharp chisel to each example ensured that a fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowland x10). Where possible, comparison was then made with the Pre-Construct Archaeology Building Material reference collection in order to provide a match. However, because many of the fabrics were found to be unique to Hampshire, an additional pre-requisite was to compile a local fabric collection. After analysis the common fabric types were discarded. Any unusual or interesting fabrics were retained.

Brick fabric and form

An overview of the ceramic building material assemblage from Phase C, Royal Clarence Yard, Gosport, by fabric and form serves to quantify the common fabrics and highlight the presence of any unusual or interesting fabric types that may provide valuable dating evidence in the phase summary.

3032; 3032nr3033; 3033; 3035

The bricks from this phase of the excavation consists mainly of the same red 3033 fabrics seen in the other phases of this excavation (D1-D3; Attenuation Tank; Refuse/Cycle Store) once again either as stock (hand made) form or from machined production with sharp arises. In Phase C, however there is the addition of some machined yellow 3035 fabrics resembling the London Stock Brick and a solitary post-Great Fire brick 3032 only seen in Phase D1-D3.

In form, the red stock moulded bricks here e.g. [1660] are identical to other parts of the site such as the attenuation tank; D1-D3; Refuse/Cycle Store - being quite long 225mm average width 106mm and quite thin 60-65mm. Red stock moulded bricks continued to be manufactured outside of London into the 18th and 19th century. Most are well made (resembling machined bricks) as clinker and organics did not need to be added to make the clay stretch further as there was plenty available in relation to demand. They are in all the major construction phases of the site including the 1758 building works [1660]; the 1782 drainage system [2225] and inner dockyard wall [2231] and the 1830s reform to the yard including the construction of the Salt Meat Store [2253] and 1897 alterations [1659] [2214].

By contrast, the machined bricks are larger (110mm) and thicker (68mm) with sharp arises but are only present in the 1897 arcade [2208] and culverts [2045] [2203], with a solitary example (possibly a repair) from the pier base, indicating that some of the recorded wall structures from this part of the site post-date 1850.

Three machined yellow London fabrics 3035 are present in the 1897 culverts [1658] associated with alterations to the Salt Meat Store [1658] and a circular brick drain from this phase [2210]. The manufacture of these machined bricks, probably from a Thameside London Clay source such as North Kent, occurred between 1850 and 1940 corroborates with their use in a late 19th-century culvert. Finally one post-Great Fire purple clinker brick was identified in the 1830 red brick wall [2236]. This had previously only been identified in the mid-late 18th-century drain culverts [1012] [1363] and well [1114] of Area D.

Fabrics - Detail

3033

The dominant brick fabric at Gosport – present as a number of variants. Outside of London the red brick fabric 3033 continues to be manufactured locally and used into the 18th to 19th century and this is evident in the construction phases of the bin store and elsewhere at Royal Clarence Yard – Gosport (D1; Attenuation Tank; Refuse/Cycle Store).

The variants are (both as machined and stock-moulded form)

3033a [1660] [2253] very fine red/orange brick with shelly linear fragments (some dissolved) and scattered calcium carbonate . Occasional silty nodules 2-3mm scattered throughout.

3033b [2203] [2225] Red brick with numerous medium size glassy quartz 2mm occasional silty chunks and scattering of clinker giving the brick a sandy crispy feel comparable somewhat with post-Great Fire fabrics in London 3032 and 3034 up to 5cm long some red iron oxide very occasional black iron oxide.

3033c [2236] [2253] This red fabric (fine very large red iron oxide and silty lumps 1-2cm across) had only been identified in Area D1 in early 19th-century long paving bricks [1099] and late 18th-century drainage complex associated with the attenuation tank [2317]. Here it is present in the 1757 red brick floor [1659] and the 1897 arcade foundation [2208].

Mortar

The mortar from this phase of the site consists of three forms. First, a light brown friable cement with small chalk inclusions found only in small quantities associated with the brick found in the 1757 flooring [1660] and 1830 north foundation pier base [2234]. This chalky type of mortar typifies cement of the 17th and 18th century over much of southern England. By far the most common type is the hard very white shelly mortar resembling Portland cement, evident elsewhere in 19th-century structures at Clarence Yard such as the brickwork at [2283] and [2282] and machined brick from the watching brief to the north of D1 masonry. This cement was patented in the 1820s and would have been in widespread use during the second half of the 19th century. Its use from Phase C is mainly associated with the 1830s construction of the Yard and culverts [2203] and buildings [2235] as well as 1897 alterations to the Salt Meat Store [1659]. Finally the mortar associated with the post-1850 machined yellow brick culverts [2210] associated with 1897 alterations. This is a sand-rich compact dark yellow/brown fabric with 5mm specks of chalk, resembling a Roman cement and may have been chosen as it blends in the with yellow brick. This mortar is in widespread use during the 19th century after it was patented in 1796.

Phase Summary

The phasing summary will assess the overall character of the building material assemblage from each phase and (where possible) relate their fabric and form (including evidence for reuse) to the proposed date and function for each occupation phase from this part of the excavation.

Phase 2 Pre-1716 Beer House, Maltloft and Stables

All the structures recorded from this phase are constructed out of roughly hewn blocks of limestone. It is probable that these are of the same shelly Upper Jurassic Portland limestone as recorded from the Phase 2 Late 17th-century/Early 18th-century circular stone feature recorded in Phase D1. Numerous quarries were opened up such as Winspit on the Isle of Purbeck soon after 1673 (Stanier 2000). Indeed it is likely that the "Caen stone" identified from

[2048] is more likely to be a similar looking limestone from the Isle of Purbeck called Pond Freestone (Hayward pers. obs.)

Phase 3 1757 New Brewhouse and 1758 New Storehouse and Reservoir

The circular flooring [1659] of one of the new brewhouse buildings is made of the same type of red brick identified in the later 1782 Samuel Wyatt extensions to the drainage culverts in the Attenuation Tank area. However it is interesting to note that both contexts represented by red brick from this phase [1659] [1660] are bonded by a harder white shelly mortar typical of the 1830s extensions. These bricks may have been repointed or alternatively represent early 19th-century repairs.

Phase 4 1782-3 Samuel Wyatt Storehouse

The bricks associated with the Samuel Wyatt drainage to the east of the later Salt Meat Store [2225] are made of the same 3033a fabric as used in the 1782/3 culverts from the attenuation tank [2318] [2319] [2310] [2314] and represent a single consignment specifically for the development of this part of the works. The brick used in the wall of the Samuel White Storehouse [2043] is also of a comparable fabric although it may have been repointed in the early 19th century with white mortar.

Phase 5 1830s Taylor's Reforms to Yard and Salt Meat Store

All of the bricks represented during this phase are characterised by well made stock moulded red 3033 bricks mortared using a hard white shelly mortar somewhat comparable with Portland Cement which was patented during the early part of the 19th century. This included the western wall of the newly constructed Salt Meat Store [2253], its foundations [2234] [2235] and internal walling [2236]. These bricks had previously been misidentified as machine brick and belonging to Phase 6, but on closer examination were found to be very well made stock brick, which makes a pre-1850 date for the construction of the Salt Meat Store on the form and fabric of the brick possible.

Phase 6 1897 Arcade between Miscellaneous and Salt Meat Store

Culverts associated with the later 19th-century alterations [1658] [2210] are constructed of a different type of machined brick fabric, the yellow 3035. This is comparable with the London yellow brick manufactured in enormous quantities to North Kent from 1780 onwards but this version is much finer grained and probably represents local manufacture.

The supporting bases [2208] [2214] used for late 19th-century arcading linking the 1782 Wyatt Miscellaneous Store and the 1830 Salt Meat Store are made of machined red bricks bonded in late 19th-century hard grey Portland cement. The use of machined bricks after 1850 means that these pillars could only have been constructed at this time.

Finally, two culverts [2203] [2045] originally assigned to Phase 4 of the 1782 two-storey storehouse are in fact constructed in machined red brick with hard white mortar which indicates a construction date after 1850. However, it is possible that these bricks represent later repairs to these culverts. In Phases C and D1 and the attenuation tank the culvert drain bricks from the 1782 building phase are normally stock moulded and bonded in a friable light grey mortar.

Recommendation and Rationalisation

As part of the rationalisation process, a fabric collection of bricks and mortar from 18th-19th century Gosport has been collated. This can be consulted when sites from the same area have been assessed.

A study into the source and dynamics of building material manufacture and use by the Admiralty in the 18th and 19th century would warrant some investigation. Otherwise no further investigation is required.

Distribution

Context	Size	Date range of material			Latest dated material	
1658	2	1850	1940	1850		1940
1659	6+mortar	1664	1900	1800		1900
1660	4+mortar	1450	1900	1800		1900
2043	1	1450	1900	1700		1900
2045	1	1850	1950	1850		1900
2203	1	1850	1950	1850		1950
2208	1	1850	1950	1850		1950
2210	1	1850	1940	1850		1940
2214	1+mortar	REUSED 1450	1800	1450		1850
2225	2	1450	1850	1450		1850
2231	1	1450	1850	1450		1850
2234	2	1450	1850	1450		1850
2235	2	1450	1950	1850		1950
2236	2	1450	1950	1850		1950
2253	2	1450	1850	1450		1850
2281	2	1450	1850	1450		1850

Bibliography

Stanier, P. (2000). *Stone Quarry Landscapes: The Archaeology of Quarrying in England*. Stroud, Tempus.

APPENDIX 3: FINDS CATALOGUE

With the exception of the ceramic building material which is assessed in Appendix 3 only two finds were recovered from the site.

Context [2228] animal bone sheep metacarpal, young animal as distal epiphysis unfused

Context [2229] glass base of bottle, 1830+

APPENDIX 4: OASIS REPORT FORM

OASIS ID: preconst1-58826

Project details

Project name	Assessment of an Archaeological Excavation at Phase C at Royal Clarence Yard, Gosport, Hampshire
Short description of the project	<p>Archaeological excavations were conducted by Pre-Construct Archaeology Ltd. at several sites within Royal Clarence Yard, in advance of their redevelopment in to residential and commercial properties. Gifford, on behalf of Berkeley Homes (Southern) Ltd., commissioned the work. The investigations were undertaken between 16th July 2007 and 17th April 2009. The works comprised test trenches designed to evaluate any surviving remains followed by a 'strip, map and sample' excavation of the footprints of new buildings. Substantial structural remains were encountered following the digging of test trenches across the site in July and August 2007. The results from the evaluation suggested the presence of several phases of building in a good state of preservation. Initial observations of what appeared to be a large truncation recorded by an absence of archaeological remains in the northwest of the Phase C area actually represented the backfilling of a large reservoir with demolition material. Several phases of building were observed and relate to the storage of provisions for the navy, particularly beer from the earliest breweries established by Captain Henry Player at the end of the 17th century. Dominant amongst later foundations were those of a large storehouse that was built to represent a mirror image of the current day granary, mill and bakery complex that still stands to the north. This was built upon land reclaimed from the sea. Although the naval beer ration ceased in the 1830s, the purpose built stores were retained and amended to store other materials. A large structure was built to the west of this building for the storage of salt meat. The space between the two large buildings would eventually be joined to create a covered storage area. This phase of works follows on from previous archaeological investigations carried out by PCA at the historic Victualling Yard.</p>
Project dates	Start: 16-07-2007 End: 17-04-2009
Previous/future work	Yes / No
Any associated project reference codes	B1790D - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	BUILDINGS Post Medieval
Monument type	TIMBER-LINED RESERVOIR Post Medieval
Significant Finds	NONE None
Investigation type	'Full excavation','Open-area excavation'

Prompt Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	HAMPSHIRE GOSPORT GOSPORT Royal Clarence Yard (Phase C)
Postcode	PO12 1AX
Study area	3597.00 Square metres
Site coordinates	SU 61750 00500 49.9008764033 -1.140055825430 49 54 03 N 001 08 24 W Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 1.83m Max: 2.62m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Gifford
Project design originator	Gifford
Project director/manager	Tim Bradley
Project supervisor	Richard Humphrey
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Berkeley Homes (Southern) Ltd.

Project archives

Physical Archive recipient	Hampshire County Council
Physical Contents	'Animal Bones','Ceramics'
Digital Archive recipient	Hampshire County Council
Paper Archive recipient	Hampshire County Council

Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type	
Title	Royal Clarence Yard: Written Scheme of Investigation for an Archaeological for a Strip, Map and Sample Excavation of Phase C and Watching Brief on Associated works
Author(s)/Editor(s)	Gifford
Date	2007
Issuer or publisher	Unpublished report

Project bibliography 2

Publication type	Grey literature (unpublished document/manuscript)
Title	A Written Scheme of Investigation for an Archaeological Evaluation (Phase C) at Royal Clarence Yard, Gosport, Hampshire
Author(s)/Editor(s)	Bradley, T.
Date	2007
Issuer or publisher	Unpublished report

Project bibliography 3

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Evaluation of land at Royal Clarence Yard, Gosport, Hampshire: Phase D1, D2 and D3
Author(s)/Editor(s)	Humphrey, R.
Date	2007
Issuer or publisher	Unpublished report

Project bibliography 4

Publication type	Grey literature (unpublished document/manuscript)
Title	Assessment of an Archaeological Excavation at the Stormwater Attenuation Tank at Brewhouse Square at Royal Clarence Yard, Gosport, Hampshire
Author(s)/Editor(s)	Humphrey, R.
Date	2009
Issuer or publisher	Unpublished report

Entered by	Jon Butler (jbutler@pre-construct.com)
Entered on	22 March 2010

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