Centre for Archaeology Report 75/2001

Report on the Survey of the Hospital Complex at Fort Cumberland

David Fellows and Patrick O'Hara

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Summary

Fort Cumberland is an 18th-century fort built on the shingle spit of Eastney Point on the south-eastern corner of Portsea Island. It is a Scheduled Ancient Monument (Hampshire monument no. 277) and is the home of English Heritage's Centre for Archaeology. It is described in the English Heritage's Visitors' Handbook as 'perhaps the most impressive piece of 18th-century defensive architecture in England'.

The Hospital Complex developed around the Storehouse of the mid-18th century fort and was in use as a hospital by 1861, making it one of the earliest surviving permanent military hospitals established in the wake of the Crimean War. This report contains the results of the survey of the buildings undertaken prior to their conservation and refurbishment.

Keywords

Survey Standing Building Post-medieval

Authors' addresses

English Heritage, Centre for Archaeology, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth PO4 9LD. Tel. 02392-856709. Emails: dave.fellows@english-heritage.org.uk and Paddy.o'hara@english-heritage.org.uk

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For the purpose of this report, the orientation of the Hospital Complex has been simplified to align with the cardinal axes. The true orientation of the long axis of the complex is NW-SE, but to avoid complication this has been taken to be N-S. All descriptive orientations are relative to these simplified axes.

Summary

The Hospital complex at Fort Cumberland is of particular architectural and historical interest. The complex is formed around the triple-gabled Storehouse building that is one of the two structures to survive from the first Fort Cumberland of 1747 (the other being the Guardhouse) – see **figure 1** for location plan. Of perhaps equal significance is the conversion of the Storehouse and adjoining buildings in the complex into the Hospital, in existence by 1861, and thus one of the earliest surviving permanent military hospitals established in the wake of the Crimean War.

The Hospital Complex consists of a range of rooms that have been added to the original Storehouse building that was constructed in 1747. The original square building had a triple-gabled roof supported by four chamfered timber columns and engaged brick piers on the eastern and western walls.

The original arrangement of the Storehouse had a large entrance through the central bay of the western wall, with flanking windows in the bays on either side. The eastern wall had a window in each bay, and the north and south walls appear to have had no openings at this time.

The building was originally sited within the eastern corner of the irregular star shaped Fort. When built the principal western elevation faced out across the parade ground.

Prior to 1859, probably during the construction campaign of 1793-1812, the Storehouse had been extended to the north by the construction of a self-contained brick office building – the North Office.

Construction work prior to the 1860s extended the lengthened storehouse range out to the east, with a series of flat-roofed structures built against the external face of the eastern wall. Post-dating these additions, but presumably built during the same campaign, was the timber-framed structure to the south. All of these additions were associated with the conversion of the complex of buildings into the Hospital. The Hospital had three wards, the Storehouse acting as one ward with the timber-framed structure being centrally divided into two wards.

A further addition to the building was the construction of a Surgery to the east of the timber-framed structure, and this completed the layout of the Hospital\Storehouse complex shown on the plan of 1861.

Subsequent alterations were associated with the changing use of the buildings, such as the addition of a building to the south of the Surgery for the Sergeant's Living Quarters. The latest phase of building recorded (other than the recent conservation work) was the

reconstruction of the south-eastern corner of the complex following the Second World War bomb damage.

The buildings have recently been conserved by Historic Properties South East (HPSE). The conservation work has included limited demolition of parts of the buildings, with the justification for the demolition described in the Conservation Plan (Roebuck, 1998). The timber-framed structure had to be extensively rebuilt during the conservation works, but the other buildings have not been so heavily altered. The flat-roofed lean-to buildings to the north and east have been re-covered, with some rebuilding of the parapet and replacement of a number of the roof structure timbers.

1. Introduction

1.1 Recording Strategy

Following the decision to re-locate parts of the Ancient Monuments Laboratory (AML) of English Heritage (EH) from London to Fort Cumberland (the re-location taking place in the summer of 1999), a programme of conservation and refurbishment of the buildings that were to be utilised was planned.

This included the development of a recording strategy for the buildings affected by the proposals. The recording strategy was developed in consultation between HPSE and the Central Archaeology Service (now the Centre for Archaeology - CfA) of EH, and was based on the statements of significance contained in the Conservation Plan (Roebuck 1998), and on an earlier draft strategy by HPSE for the recording of the Fort as a whole. In general terms, the higher the significance, the greater the recording requirement, although the particular circumstances of each building - structural complexity, condition, nature of construction, and so on - were also taken into account. The recording strategy was designed to meet the requirements for Class 6 Scheduled Monument Consent.

The Hospital Complex was identified in the Conservation Plan (Roebuck, 1998) as being of high historical significance, and the recording strategy for structures deemed to merit the highest level was as follows:-

<u>Highest level</u> - metric photography, narrative (or general record) photography, detailed recording by CfA, timber recording. This work will be followed up by additional recording during the course of the development as further areas of fabric are exposed or have to be removed.

In detail, the recording strategies for the constituent parts of the complex were:-

a) Hospital

Measured survey of the interior eastern and northern walls Rectified photography of the northern wall (including the northern wall of the extension) Re-draft Rectified Photography with archaeological observations Measured survey of the western wall of the extension Narrative photography of the interiors Paint analysis in the extension

b) Storehouse

Rectified photography of the exterior
General narrative photography of the exterior
Rectified photography of the interior elevations
Re-draft Rectified Photography with archaeological observations
Roof plan
Long section (to include Hospital)
Narrative photography of interiors
Paint analysis

The production of the rectified photography and the paint analysis were subcontracted by HPSE. The results were available for the analytical survey of the fabric of the building undertaken by the CfA, a major part of which involved the enhancement of the rectified photography of both interior and exterior elevations.

Prior to the decision being made to relocate the AML to Fort Cumberland, conservation work on the Hospital Complex was already in progress. Owing to its poor state of repair the work that had already been completed had been concentrated on the timber-framed part of the Hospital building. The timber framing of the south and west walls had been recorded prior to repairs being undertaken. The post-war addition to the south-eastern corner had been removed, and the mathematical tiling on the external elevations of the timber framing had been re-instated.

1.2 Provisional Phasing

This report refers to the different areas of the complex by the names of the rooms current during the use of the building as the Hospital in 1861 as shown on the plan reproduced as figure 2. Exceptions to this are the original square Storehouse structure pre-dating the Hospital (Ward No. 3 on the plan) and the later additions that post-date the plan.

Nine phases of building and modification have been identified, and these include the postwar alterations and the latest conservation works (the phases are illustrated on **figures 3, 4** and **5**).

Phase 1 Mid 18th century (1747-1748)

Phase 1 covers the construction of the Storehouse as shown on the Desmaretz plan of 1747 (BL MSS KTOP XIV Folio 60). The building, square in plan, was constructed in its triplegabled form with a large imposing segmental arch headed door opening in the centre of the western elevation, opening onto the parade ground. This elevation had segmental headed

window openings to either side of the central door, with 3 corresponding windows on the eastern wall. The triple-gabled roof structure was supported by the four central timber columns, and by the paired brick piers projecting from the eastern and western elevations.

In its original form the building had a red brick floor with the bricks bedded on edge and coursed across from east to west, although alongside the east and west walls there was a border with between 8 and 10 bricks coursed in line with the walls, aligned north-south.

Along the southern elevation there is a series of 20 sockets, now brick-filled, set into the brick walling. A further 3 sockets presumably originally existed but these have been removed by the insertion of the doorway. The sockets look as though they were for flooring joists although there are no corresponding sockets on the opposite wall or wherever they would have spanned to. These sockets may have been for racking or shelving in the Storehouse, or may have been to support a seating or bench-like arrangement along the southern wall.

Phase 2 Late 18th-early 19th century (1782-1812)

Phase 2 involved the construction of the extension to the north of the Storehouse building creating the North Office. When the Storehouse was built, it was located in the north-eastern corner of the ramparts of the original star-shaped fort, and the remodelling of the fort in the late 19th century opened out the land around the Storehouse enabling its expansion. The North Office was constructed with a central doorway and flanking rectangular sash windows, with a similar sash window located in the western elevation. Presumably there was a corresponding window in the eastern elevation but no evidence for this now survives.

Around the doorway there was a porch structure, and the door led into a lobby area, with the office divided into two by a central partition wall. At this time the North Office was a self-contained space.

Currently also assigned to this phase is the alteration to the fenestration in the original Storehouse building. With the remodelling of the fort and the opening up of the building, access was not confined to the main door in the western elevation. It is thought that the doorway and windows in the south elevation were cut through at this time enabling access from the south. Evidence for a porch structure associated with this southern wall doorway was also recorded, mirroring that of the north elevation of the North Office. It is possible that the insertion of the door and windows to the south elevation occurred during a later phase of works (phase 3), at a time when the eastern range of buildings was constructed against the eastern elevation consequently blocking the windows on this elevation.

Also belonging to the phase 2 works was the narrowing of the main entrance door through the western elevation and the insertion of a doorway of more ordinary size. This suggests that the Storehouse no longer needed the large opening required previously and that the function of the building may have changed.

Phase 3 Early-mid 19th century (1812-1859)

The Phase 3 development of the complex involved the major addition of a flat-roofed range along the eastern side of the existing building, creating a square-shaped building complex. The eastern range consisted of 4 rooms, named on the plan of 1861 as (from the north) the North Store, the Barber's Shop, the South Store and the Kitchen (see **figure 2**). The addition of the eastern range was coupled with the blocking of the redundant windows in the eastern elevation of the Storehouse building, although the central window was only partially blocked and converted into a door for access through to the Kitchen from the Storehouse. To compensate for the loss of light in the Storehouse, the windows on the western elevation were increased in size with the sills moved down 5 courses.

The Barber's Shop formed a self-contained space with access only possible through the door located in the eastern elevation. The South Store had access through a door in the eastern elevation as well as a door in the south elevation linking it to the Kitchen. The Kitchen had a door in the eastern elevation and also the door mentioned above through to the Storehouse formed from the blocked window. The North Store had a window on the eastern elevation, not a door, and access was only possible to this room from the North Office, the phase 2 extension to the north of the Storehouse building. Consequently a doorway was inserted between the North Office and the North Store.

Phase 4 Mid 19th century (pre 1860)

In the mid 19th century, dating from around the time of the Crimean War, a timber-framed structure was added to the south of the existing complex of buildings, and the use of the complex changed to a hospital. This was one of the earliest military hospitals that could have been constructed to incorporate the advances in medical hygiene and technique resulting from the post-Crimean reforms of military health provision.

The timber-framed building was square in plan and had a dividing wall slightly to the east of centre creating 2 hospital wards. At either side of the room (east and west) there was a fireplace with the chimney breast integral to the construction of the frame. The sill beam for the timber framing sat on a low brick sleeper wall, and the framing consisted predominantly of vertical studwork mortise-and-tenoned to the sill beam and the wall plate, with occasional diagonal bracing timbers. The roof trusses were supported by timber posts on the south frame and by stone corbels cut into the brickwork on the north elevation, through which the truss tie beams were tied using iron bars and plates.

The external face of the timber framing was finished with close boarding and mathematical tiling on the southern elevation and part way round the eastern elevation, with the rest of the eastern elevation and the western elevation finished with weather-boarding.

The south and west elevations of the timber-framed structure had sash windows, two on each, although there is no evidence for any windows on the eastern frame elevation. They may have existed, but no evidence was seen on the southern half of the frame, and on the northern

half evidence would have been obscured by surviving plaster. Internally the frame was finished in a combination of lath-and-plaster and timber panelling.

This phase of work also saw some modification to the access to the eastern range with a new door and window cut through the southern wall of the Kitchen.

In the Storehouse building, the fireplace on the northern wall was added, probably at the same time as that in the western room of the North Office. The fireplace was probably necessary due to the change of use of the Storehouse to a Hospital with the Storehouse becoming one of the wards either at this time or very shortly afterwards (possibly in phase 5). Another fireplace, again probably dating from this phase, was that on the west wall of the Kitchen.

The porch around the external face of the door through the south wall of the Storehouse was no longer necessary following the construction of the timber-framed structure and so was removed.

Phase 5 Mid 19th century (pre 1861)

By 1861, the layout of the buildings of the Hospital Complex was in the order shown on the plan from that time reproduced as **figure 2**. This entailed the addition of a further brick built structure to the east of the timber-framed building along the line of the rest of the eastern range. The new structure consisted of two rooms, a Surgery at the southern end and a Passageway, with the Passageway shown on the 1861 plan as having a centrally positioned door on the eastern elevation with what looks like a small porch or lobby area. There is also a central partition wall shown subdividing the Passageway in two along its length. The Passageway gave access to the newly constructed Surgery to the south and also through to the timber-framed structure, known as Wards 1 and 2, to the east. This was achieved by the insertion of a doorway through the northern end of the timber-framed eastern elevation. The Surgery also had access through its southern elevation. The building of the Passageway caused the door and window inserted into the south elevation of the Kitchen to be blocked.

Phase 6 Late 19th-Early 20th century

Alterations from this phase of works included the construction of a building against the eastern range phase 5 Passageway, with a central door in the eastern wall and windows on the side walls, and the addition to the south-eastern corner of the timber-framed building of a rectangular brick building, thought to be the Hospital Sergeant's Living Quarters.

In the Hospital itself, the partition wall between Wards 1 and 2 of the timber-framed structure was removed and a central brick hearth was constructed. A smoke louvre to deal with this new fireplace was incorporated into the roof structure.

Also assigned to this phase have been the insertion of the fireplaces into the eastern cell of the North Office and the north-western corner of the Storehouse, although the exact date of these alterations is not known. The fireplace in the north elevation of the Storehouse may have been narrowed during this phase.

Phase 7 1940s

The bombing of the Fort in August 1940 resulted in severe structural damage to the south-eastern corner of the Hospital Complex. The timber-framed structure survived but the buildings south and east of the Passageway were badly damaged and were dismantled. In their place the Passageway and Surgery buildings were rebuilt and the range was continued around the south-eastern corner of the complex with the construction of a new building. This building was accessed from the west, but there was also access between it and the timber-framed structure with a doorway inserted through the eastern end of the southern timber-framed elevation. The phase 6 porch to the east of the surgery was not replaced, although its outline can still be seen in the form of its surviving concrete floor. (Whilst a path was being laid up to the newly refurbished buildings in 1999, the stepped brick footings of this building were revealed).

Various other structures constructed along the eastern range, including a detached toilet block at the northern end of the range, were also demolished and in their place a new brick toilet block was constructed. The concrete flooring slabs of these buildings survive, as do occasional paint lines showing the wall positions against the external wall of the eastern range.

Internally the building was re-ordered and the Storehouse building was converted into the Navy, Army and Air Force Institute bar (NAAFI bar). Internal partition walls were constructed and the fittings for the bar and its shuttering remain on the northern pair of timber columns that support the roof structure. The central fireplace on the north elevation was altered with the cast-iron fireplace being inserted, and presumably at this time the fireplace in the north-eastern corner was converted into a holding for two safes. An additional fireplace was built in the middle of the western elevation in the position of the original door opening, with the chimney running up the external face of the western wall. The concrete floor surface was poured over the original brick floor, and the room was repainted with a mustard-coloured dado and red border.

The North Office doorway was blocked and a window put in its place. At the same time the porch and lobby were removed. Externally a small brick structure with a lean-to was added to the North Office and North Store external elevations. To enable access through to the North Office following the blocking of the door, a further doorway was inserted into the eastern elevation of the North Store replacing the earlier window. Various other changes to the access between the rooms on the eastern range were made. A doorway was inserted to link the North Store with the Barber's Shop and another was put through between the Barber's Shop and the South Store. The doorway between the South Store and the Kitchen was blocked.

In the timber-framed structure, the original fireplaces on the east and west elevations were dismantled and new fireplaces put in their place.

Phase 8 Mid-late 20th century

The alterations in the mid to late 20th century included the removal of the bar fixtures and fittings, and the partition walls, from the Storehouse\NAAFI bar. The elevations of the room were then dry-lined, as was the ceiling. The fireplace in the western elevation of the Storehouse, in the position of the original doorway, was dismantled and a window was put in its place.

Phase 9 Late 20th century

The conservation and refurbishment works of the 1990s followed the neglect and disrepair of the previous three decades. The works involved the virtual rebuilding of the southern elevation of the timber-framed Hospital structure, the removal of the Sergeant's Living Quarters on the south-eastern corner of the building, the replacement of the rotten wood in the sash windows, and the complete external repair of the Hospital Complex creating a weather-proof shell. This included the re-instatement of the mathematical tiled facing of the southern end of the building, replacing the earlier (early 20th century, phase 6-7) slate-hung facing, and the re-cladding of the remaining external faces of the timber-framed structure in weather-boarding

2. The Storehouse (Ward No. 3)

The first reference to the Storehouse is that shown on the Fort proposal plan executed by Desmaretz in 1747 (BL MSS KTOP XIV Folio 59) where the building is described as the 'Projected Storeroom'. The plan shows a squared structure with an addition along the northern face. The plan of the Fort that appears to have been accepted and consequently constructed was again produced by Desmaretz (BL MSS KTOP XIV Folio 60). This shows the Storehouse as a square building with a centrally placed doorway flanked by single windows on the western elevation, with three corresponding windows shown on the eastern elevation. Internally the building is shown divided into bays by four columns and has two internal buttress supports on the eastern wall.

This corresponds very closely to the brick building with a triple-pitched roof that survives on site. The building was almost square (10.7 x 10.24m, 34ft 9" x 33ft 3") with the original doorway on the western side. This was flanked to either side by single segmental arch headed windows, and on the eastern elevation there were a further three segmental arch headed windows. The internal space had four chamfered timber columns with engaged piers on the east and west elevations to support the roof. Around the base of the external face of the wall was a brick plinth.

The building originally backed up against the ramparts on three sides with only the western elevation facing out onto the parade ground.

The construction of the updated and enlarged fort by the Duke of Richmond in the late 18th and early 19th centuries changed the aspect of the building within the fortifications. It stood clear of the ramparts enabling subsequent expansion to the north, east and south (see **figure 6** for the survey drawings of the external elevations).

2.1 West Wall

The western wall of the Storehouse is the original front of the building. It is constructed of red brickwork laid in English bond and incorporated into its build are three openings, two segmental arched headed windows on either side of the central arched door opening (see **figures 6** and **7**).

Internally the elevation is divided into three even-sized bays by the brick piers that support the roof structure.

The window openings have brick closers to either side of the jambs. The original windows may have had arched heads, but the current windows are 12-light timber-framed sash windows. The original openings measured 2.10 x 1.16m (6ft 10" x 3ft 9"), although the openings have subsequently been enlarged and extended downwards prior to the insertion of the current windows. This was probably in response to the need for more light following the blocking of the windows on the eastern elevation with the construction of the eastern range in the 1850s. The enlarged window openings measured 2.48 x 1.16m (8ft 1" x 3ft 9"). The sills of the openings are constructed of a course of brick bull headers. The gap between the frames of the sashes and the underside of the brick arch has been infilled using timber slats with a vent in the southern window bay.

The central door opening has been much altered through time. When first constructed it formed a large arched door opening measuring 1.98m wide x 3.46m high (6ft 5"x11ft 3"). This was subsequently partially blocked and the opening narrowed. A brick relieving arch was constructed above the door and a limestone threshold was put in place creating a door of more usual proportions - probably during the phase 2 alterations. This remained in use for a long time, with a great deal of wear visible on the threshold step and corresponding wear seen on the internal brick floor surface. By the late 19th century when the main access to the timber-framed Hospital structure was altered to the newly constructed Passageway and porch to the east, this doorway was converted into a window. A brick fireplace was inserted into the window opening, probably relating to the use of the internal space as a NAAFI bar (post Second World War), and this remained in place until the late 20th century when a sash window was put in the opening. When the fireplace was in position, the lower nine brick courses of the external wall face were rendered to create a plinth.

A brick fireplace and flue have been inserted into the north-western corner of the store building. Following its disuse, two metal safes (one above the other) have been placed into the fireplace opening, the safes being made by Samuel Withers and Company Ltd of West Bromwich.

2.2 North Wall

The northern wall of the Storehouse survives little altered from its original form, although evidence for the varying uses of the building can be seen on the internal face (see **figure 7**). The final decorative scheme in the Storehouse consisted of dry-lining, with the wall surfaces covered by hardboard attached to timber battens. This has recently been removed to expose the brickwork, and the elevation retains much of the final paint scheme of the room.

The wall is constructed of bricks laid in English Bond. At the base of the wall there is a rendered skirting that is c.0.04m proud of the wall face. The main feature in the wall is a centrally positioned fireplace. No evidence for this being cut into the wall could be seen, although the coursing of the brickwork and the historic plan evidence suggest this is a secondary feature, albeit a regularly altered one. It is unlikely that the fireplace existed in the original Storehouse building, although it would have been essential when the space was used as a hospital ward. There is evidence for three different fireplaces in this position, each one smaller than that preceding it. The first and outermost one has a segmental brick arch supported by an iron plate. It spans 1.23m (4ft), and the brick arch was built using soldier bricks. The second fireplace, within the first, is again brick with an arch constructed of bull headers spanning 0.88m (2ft 10"), with the underside of the arch supported by an iron plate. The rendered skirting that extends around the room finishes at either jamb of this fireplace, and this suggests they were possibly contemporary and part of the same scheme of works. If not, the skirting was put in place during the lifetime of the second fireplace and pre-dates the third. This consists of a decorated iron fireplace, fairly simple in design, with a protruding smoke hood and a horizontal iron support plate.

The flue from the fireplace is positioned to the west of centre, and is much smaller than the brickwork structure of the fireplace. There has been damage and repair to a patch of the brickwork in the face of the flue, and this may have been caused by a blockage.

The face of the wall is peppered with timber plugs or studs set into the brickwork. These form vertical alignments and were to hold the battens onto which the timber boarding forming the dry-lining was attached. Above each alignment at the ceiling level there are sockets cut into the wall which retain the horizontal timbers of the false ceiling of the dry-lining, the latest phase of decoration in the building.

At the eastern end of the wall there is a series of three rows of three circular timber dowels set into the wall, and these form a rectangular pattern. These may be associated with shelving or cupboards, possibly during the period when the room was in use as a canteen\bar area.

To the west of the fireplace there are the remains of a brick partition wall. The wall ran from the north elevation to the timber column opposite and separated the north-eastern part of the room to create the bar or serving area of the NAAFI. Further evidence for the bar was seen on the timber columns, with the position for the shelf and the sockets for the rolling shutters cut

into the column faces. A doorway in the western elevation gave access to the bar area. On the north wall, the line of the partition wall can be seen in the paintwork. The latest paint scheme prior to the dry-lining respects this partition and thus post-dates it. The paint scheme has a mustard coloured dado with a red border, and the rounded corners give it an art-deco feel, suggesting a 1930s-1950s date.

An isometric view of the 3 dimensional wire-framed model of the survey of the internal elevations of the Storehouse is shown on **figure 8**.

2.3 East Wall

The eastern wall of the Storehouse has the three-bay rhythm dictated by the window openings, the timber columns and the triple-gabled roof structure (see **figures 6** and **7**). The three window openings mirror those on the western elevation (although originally the central bay on the western elevation was a door), with segmental brick arches and brick jambs. The arches are constructed predominantly of brick bull headers, although occasional soldiers have been used. Although now blocked following the building of the eastern range, the northern and southern openings retain the original recessed inner brick arches and jambs. Headers were used to create the edge of the recess, reducing the opening of the window from the internal dimension of 2.10 x 1.16m to 2.0 x 0.95m (6ft 10" x 3ft 9" to 6ft 6" x 3ft 1"). The form of the original windows is not known although presumably they were originally round headed. In the southern window there are the remains of a 0.025m (1") thick timber sill or shelf.

Brick closers were used to either side of the window jambs, and occasional timbers have been used in the jambs themselves. The wall is constructed of red brickwork laid in English Bond and the internal surface retains much of the latest limewash wall covering.

The central window was converted into a doorway, and it appears that this took place at the same time as the windows in this elevation were blocked. The brick blocking above the doorway is flush with the wall face and not recessed as in the other windows. The door lintel has been replaced and repaired, and the corners of the jambs have been rendered to form sharp arrises.

The northern end of the wall has had a sink up against it, the outline of which has been preserved by the later paint finishes. There is also a pipe, and the sockets used to key in the brickwork that supported the sink have recently been filled with cement and brickwork. The timber studs for the dry-lining form vertical alignments along the whole of the elevation and are seen behind the sink indicating that the sink was removed before the room was dry lined. The painted finishes survive well on this elevation, with a mustard coloured dado and cream paint above, with the junction picked out in a thin (0.01m, c.½") line of red paint.

The brick piers that are integral to the build of the wall show evidence for partitioning, the northern one especially having had a brick partition wall between it and the timber column. On the northern face of the northern pier and around onto the northern bay of the elevation is

a section of walling that has escaped the mustard paint scheme, and this shows the position of a cupboard or other feature against the wall.

In the northern bay, the rendered plinth has been partially removed revealing the brickwork of the original wall, flush with the surrounding wall face.

2.4 South Wall

The southern wall of the Storehouse is constructed of red brickwork laid in English Bond, and has an inserted central doorway with inserted windows on either side (see **figure 6**).

Internally the wall has a rendered plinth that is 0.20m high (8") above the poured concrete floor and c.0.06m ($2\frac{1}{2}$ ") proud of the wall face (see **figure 7**). The plinth stops on either side of the door and does not appear to have been cut through for its insertion, suggesting the plinth to be either contemporary with or post-dating the insertion of the door. It is thought that the door and windows were inserted into this elevation during the second phase of works early in the 19th century when the North Office was added. The addition of the North Office would have created a rectangular building, with central doorways flanked by windows in the north and south elevations.

The openings for the windows measure 2.30 x 0.92m (7ft 6" x 3ft). The windows themselves are in two sections. The lower section has four rectangular glazed lights held by timber glazing bars. The upper section has two lights held in a frame that is hinged at the top that opens into the Storehouse. Above the window there are timber lintels and brick blocking which have been plastered and limewashed.

The doorway through the south elevation of the Storehouse has been cut through the original brickwork. The cut measures 2.44 x 1.40m (7ft 11" x 4ft 7"), and the edges of the cut form the edges of the doorway. There are very small patches where brick bats have been used to infill around the frame of the door and repair the edges. The frame itself is a mixture of timbers (some moulded) constructed in two sections. The external (southern) side is plainer with one or two timbers creating each section of the frame, and these are rebated to take the door (no longer in place). The internal (northern) side of the frame has four pieces of timber creating the frame, two simple squared timbers of varying dimensions, a quarter circle beaded moulding and a squared timber with a shallow hollow roll.

The framing appears to be of two styles that have been quite roughly joined together, and this suggests the frame may not be in its original position and may have come from elsewhere, perhaps from two different doorways

The face of the elevation retains evidence for the original use of the building as a Storehouse, and also for possible partitions. There is a series of twenty brick filled sockets at a height of 0.52m (1ft 8") above the current concrete floor (see **figure 6**). These are evenly spaced (0.30m, 1ft), rectangular shaped and consistent in size (0.15 x 0.10m, 6" x 4"). The series occupies two brick courses. Although evenly spaced on either side of the door, a further three sockets appear to have been removed by its insertion. At first sight, these sockets appear to have the nice even spacing of floor joist sockets, but there were no corresponding sockets on

the opposite wall or the central timber columns. The sockets may have been cut into the wall for shelving (racking) or storage purposes in the original Storehouse as at this time the floor level was c. 0.3m (1ft) lower than the current floor.

There are 3 further sockets in this elevation. These are roughly square in shape measuring 0.23 x 0.23m (9" x 9") and are positioned 1.8m (5ft10") above the current floor level. The positioning of these sockets may relate to partitioning of the walls as they are located opposite the central timber columns and the brick pier on the eastern wall. There is evidence for a possible fourth socket corresponding to the brick pier on the western wall, although the brickwork above is damaged and the limewash and a later cut obscure the socket position.

Other features visible in this elevation include the steel plates that pass through the wall to the truss tie beams of the timber-framed Hospital structure, and various cuts and timber studs cut into the wall to attach the timber-board dry-lining. The sockets for the ceiling timbers retain them in situ. There is an arrangement of squared timber plugs to the east of the door jamb, six in total, each measuring $0.025 \times 0.025 \text{m}$ (1" x 1"), and the function of these is unclear.

2.5 The Floor

Removal of the mid 20th century poured concrete floor within the Storehouse revealed the earlier brick floor of the building (see **figure 9** for a plan of the exposed brick floor). Set within the concrete was a 1952 half penny piece. The floor consisted of hand-made red bricks laid on edge coursed east to west. In places the surfaces of the bricks were heavily worn and fragmented, and there were also small areas of subsidence and patches where the bricks had been removed. In the western half of the floor in the central section of the building there were two areas of the floor that had been re-laid. These would have been in front of the doorway through the western wall and consequently would have received the heaviest levels of wear. The replaced sections have used bricks laid on bed rather than on edge. Along the eastern and western edges of the floor the bricks were laid with a border, with between eight and ten courses of brick at right angles to the rest of the floor and in alignment with the walls – north to south.

Sockets and missing bricks relating to partitioning and partition walls within the building could be seen on the brick floor. The most obvious of these were seen in the northern third of the floor and may have related to the partitioning walls of the NAAFI bar.

To the north, a large area of the brick flooring had been removed from around the fireplace located in the northern wall although the reason for this is not readily apparent.

A series of small excavations immediately to the south of the northern wall of the Storehouse showed what appeared to be an earlier mortar surface below the existing brick floor. This mortar layer may have been a formation layer from the construction of the original building in the mid 18th century.

3. The Hospital Building (Wards 1&2)

3.1 North Wall

The northern wall of the timber-framed Hospital building is the external elevation of the southern wall of the 1747 Storehouse building. It is constructed of red brickwork laid in English Bond. The elevation currently contains two window openings and a central doorway (see **figure 10**, with an isometric view of the 3D wire-framed model of the internal Hospital elevations shown on **figure 11**). The windows and door have been inserted through the brickwork prior to the construction of the timber structure of the Hospital building. At the eastern end of the wall there is the vertical joint between the original south-eastern quoin of the building and the more recent Flemish bonded brickwork (1850s) of the eastern range (see **figure 10** showing the survey results of the north wall).

At the base of the wall there is the brick plinth that can be seen around each of the external elevations of the original Storehouse structure. Along this elevation, the plinth is 0.04m (1½") proud of the face of the wall, and it is at least 0.50m (1ft 7½", 7 brick courses) high from the level of the rubble infill within the building. Built up to and butting against the base of the plinth are two parallel brick sleeper walls for the floor joists, and these subdivide the flooring in the room into three equal sized widths of c.3.4m (c.11ft).

The two inserted windows have segmental arch heads. The jambs are brick, and the sills are constructed of brick bull headers. The bricks used for the windows appear hand made and measure 0.215- $0.225 \times 0.105 \times 0.06 \text{m}$ ($8\frac{1}{2}$ - $8\frac{3}{4} \times 4\frac{1}{4} \times \text{c.}2\frac{1}{2}$ "), with the folded texture of the clay visible on the brick surface. These are very similar to those used to construct the main body of the wall ($0.22 \times 0.105 \times 0.06 \text{m}$, $8\frac{3}{4} \times 4\frac{1}{4} \times \text{c.}2\frac{1}{2}$ "), yet there is a distinct discontinuity between the whiter mortar of the window infill and the very pale brown lime mortar of the original Storehouse build.

A description of the windows can be found in section 2.4 above. Further to that description, the western window retains the remains of a shelf with a curtain rail attached (the pelmet).

The central doorway and frame is also described in detail above (section 2.4). In addition there is a course of bull headers infilling above the door frame. The original timber threshold can be seen at the eastern side of the door, encompassed in the mid 20^{th} -century poured concrete floor of the Storehouse. Around the doorway, the brickwork has been limewashed, and the limewash forms a distinct surround to the door, 0.33m (1ft 1") to either side and 0.08m (3") above it. Where the edges of the limewash meet the brick plinth at the base of the wall, there are slots in the brickwork. These slots are vertical and measure $0.40 \times 0.08m$ (15% x 3") in size. The upper 0.30m (1ft) of the slots have been filled in with mortar, with the lower section remaining open. It is possible these slots housed vertical timbers against the

face of the wall, and these created a lean-to porch-like structure or surround to the doorway, the limewash indicating that the space was enclosed. This appears a likely explanation as this was an external face when the door was inserted, and it corresponds to and is probably contemporary with the porch structure against the northern elevation of the North Office constructed during the phase 2 works (between 1782 and 1812). The resulting building would have been rectangular with similarly styled north and south elevations, with a central porched door opening flanked by two window openings (see **figure 4** showing phased development of the building complex, and **figure 5** showing the reconstructions).

The roof trusses of the Hospital building sit on limestone corbels set into the brickwork of the wall. There are two types of corbel used. For the east and west trusses, the corbels are plain rectangular blocks that are flush with the wall surface. The two central trusses have projecting corbels with chamfered undersides. Each of the trusses is fixed through the thickness of the wall with iron ties, the plates of which can be seen on the Storehouse side of the wall.

There are a number of timber studs infilling cuts into the brickwork of the eastern half of the wall. There is a row of evenly spaced studs, 0.07 x 0.03m (2¾ x 1¼") in size separated by c.0.4m (15¾"), running eastwards from the western door jamb 0.03m (1¼") above the door head. To the west of the door is a vertical alignment of studs that survive to just below the ceiling height, and there are two vertical alignments of studs to the east of the door. The studs post-date the addition of the Flemish bonded brickwork of the eastern range, although their function is difficult to ascertain. On the plan of the building layout from 1861, a central partition dividing the timber structure into two is shown. The plan shows the partition to be slightly to the east of centre, between the door and the window, and the studwork recorded doesn't appear to relate to this arrangement. It is possible the studs were for battens for panelling or shelving.

There are further studs set into the wall at the eastern end and these appear unrelated to those described above. Surviving on the wall are patches of plaster, although no decorative finishes remain.

3.2 East Wall

Although the northern wall of the hospital extension is brickwork (as it is part of the earlier Storehouse building), the rest of the structure is predominantly timber-framed. The eastern wall can be treated as being in three sections, two sections of timber framing separated by a centrally positioned brick fireplace and chimney (see **figure 10** showing the survey results of the east wall).

The eastern section of wall measures 4.4m (14ft 3½") long, and at either end there is a squared timber post. The posts sit on the timber sill beam and support the timber wall plate, with the sill beam resting on a brick sleeper wall. Bracing the posts and the sill beam are two diagonal timbers. The frame is constructed of twelve panels of vertical studwork, the central stud running from sill to plate in one piece, the others split into two by the bracing timbers.

The studs are attached to the sill and wall plate by mortise-and-tenon joints, and to the bracing timbers using nails.

The sleeper wall consists of at least four courses of brickwork laid in English Bond. The sill beam is $0.15 \times 0.12 \text{m}$ (6 x 434") in section and sits on a bed of mortar up to 0.03 m (114") thick over the sleeper wall. The vertical studs are $0.05 \times 0.14 \text{m}$ (2 x 5½") in section, and on the internal face the remnants of the lath and plaster finish can be seen in the form of nails to hold the laths and horizontal plaster lines. The studs have a separation of c. 0.30m (1ft).

Attached to the reverse of the studs are timber boards (close-boarding), and the remains of lath-and-plaster and of a more modern plaster laid over a metal mesh. The close-boarding is partially repair work from 1997, and the reproduction mathematical tiling has been hung on its external face. The plaster dates from after 1940, and may relate to the repair work following the bomb damage to the south-eastern corner of the Hospital Complex. It is separated from the close-boarding by a brick wall constructed of the salmon pink and buff coloured bricks that were in common use around the Fort at this time.

The recent repair work has also entailed the replacement of the southern ends of the sill beam and the wall plate.

The northern section of the elevation (to the north of the fireplace) is of a similar construction to that to the south, only there is less of the timber framing visible as more of the plaster survives. This plaster has the metal meshed backing seen on some of the plaster on the southern section of the elevation, and may also be part of the repair work to the Second World War bomb damage to this corner of the building. This section retains the timber skirting boarding, and there is evidence for shelving where the now-removed shelf timbers have obscured the latest paint schemes, and the timber fixing plugs remain in the wall.

At the north end of the eastern wall frame there is an inserted timber doorway that cuts the studwork of the framing. The mortises that would have accommodated the now-truncated vertical studs can be seen in the sill beam in the threshold of the doorway. Visible above and to the south of the door on the external face are the remains of the original weather-boarding, now enclosed by the later constructions against the hospital building. This door opening was probably formed when the Surgery and Passageway were added to the eastern side of the timber-framed structure (phase 5 – pre 1861).

The central section of this elevation is taken up by the fireplace and chimney, with a brick hearth. The extant fireplace can be approximately dated to the 1950s by the distinctive wire-pressed brickwork used, although this fireplace is a replacement and beneath it are the remains of an earlier brick hearth structure. The earlier structure, probably dating from the construction of the timber-framed Hospital building in the late 1850s, consisted of a stepped brick platform, the lower section of which comprised at least 2 brick courses (possibly more beneath the surrounding floor deposits). The lower was a stretcher course, the upper a header, and set around this brickwork were the remains of a timber plate onto which the floor joists were set. Although now removed, the positions of these joists can be seen as their imprints

have been preserved in the base of the concrete slab that was poured around them and forms the footings for the existing fireplace.

The current fireplace has a segmental brick arch, with the position of the key of the arch decoratively picked out using tiles, and with two courses of tile placed around the outer arch edge. The hearth is constructed of bricks laid in a herringbone pattern, and there is a moulded hardwood mantelpiece. The chimney breast is plastered and painted, and continues up to the wall plate level before stepping back and in to accommodate the roof truss.

3.3 South Wall

The southern elevation of the timber-framed structure was recorded by HPSE prior to the restoration works being undertaken, and the survey results are shown on **figure 10**.

The elevation consists of a timber frame with the timber wall plate sitting on a brick sleeper wall. There are three bays, and in each of the outer bays there is a centrally positioned window opening, measuring 1.73 x 1.13m. At the eastern end there is an inserted timber doorframe (2.04 x 1.06m) giving access to the late 19th-century Hospital Sergeant's Living Quarters that were added to the south-western corner of the timber-framed structure.

The timber frame consists of vertical timber posts beneath the roof trusses, with vertical studwork and diagonal bracing timbers, and occasional horizontal timbers. The common rafters are bevelled and are notched at the back to sit on the wall plate. The external face of the frame was covered by close-boarding, and the boards had iron pins for hanging mathematical tiling and iron nails for fixing pitch render. Internally the studs and bracing timbers retain some lathwork from an earlier plaster wall finish, along with a more recent steel mesh backed cementatious plaster finish.

At the western end of the frame, the exterior face of some of the framing members show carpenters' numbering marks, with a mark on the wall plate and a mark on one of the diagonal braces.

This elevation was in a very poor state of repair prior to the conservation works, and a 2.6m section at the eastern end had collapsed and become detached from the rest of the frame.

3.4 West Wall

The western elevation of the timber-framed structure was recorded by HPSE prior to the restoration works being undertaken, and the survey results are shown on **figure 10**.

This elevation can be split into three sections. The central fireplace mirrors that seen on the eastern elevation (see section 3.2 above) and also dates from the 1950s, although this fireplace is a replacement of an earlier fireplace in the same position and consequently the chimney breast is contemporary with the construction of the timber-framed Hospital building, dating from the late 1850s. The remains of the earlier brick hearth structure were seen underneath the later hearth following the removal of the floorboards.

Within the framework to either side of the fireplace are window openings (c. 1.73 x 1.11m) containing 12 light sash windows, and cutting through the northern end of the frame is a doorway consisting of a double door opening measuring 2.21 x 1.61m. The windows appear to be contemporary with the Hospital construction whereas the door is a later insertion, probably dating from the phase of Second World War bomb damage repair.

The internal face of the lower section of the frame above the skirting board has a panelled timber finish, with the upper levels showing the exposed vertical studs, with horizontal timber members bracing the framing at wall plate\truss tie beam level and at two further positions in the frame apex. Externally the elevation has been finished with weather-boarding nailed to the framing.

4. The North Office

The first building to be added to the Storehouse building was the flat roofed extension to the north that provided office accommodation - the North Office.

The office is constructed of red brick laid in Flemish Bond. The northern elevation when constructed had a central doorway with flanking sashed windows. There was a centrally positioned sash window in the western elevation, and the eastern elevation probably had a corresponding window although any evidence for this has been removed by the insertion of a later door and by wall finishings. The doorway in the north elevation has subsequently been partially blocked and the opening has been used for a sash window. The limestone threshold for the door has been retained within the build of the wall, and also visible on either side of the door are the remnants of paintwork delineating the edges of a porch lean-to around the doorway. Photographs from the early years of the 20th century show the doorway as having a pitched-roofed porch that may have been an original feature. The building clearly precedes the construction of the eastern range, with a vertical joint seen on the external brick face, but the date of its construction is unclear. A plan of the Fort from the 1830s still shows the Storehouse as a square building with no additions, although stylistically this extension is built with more care and attention to detail than the second extension of the late 1850s that abuts it.

Internally the office consists of an open rectangular space, c.9.45 x 3.75m (30ft 8½" x 12ft 2½") in size. It has a timber floor and the wall faces have been plastered. Access into the room is via a six-panelled door, the two upper panels being glazed, through the northern half of the eastern elevation. The room is lit by four windows, three on the northern elevation, one on the western (see **figure 12**). These are sash windows of two types with varying degrees of repair and replacement. The original windows in the room, two in the northern elevation and the one in the western elevation, were 12 light sash windows with limestone sills. The central window in the northern elevation is a narrow 18 light sash replacing the original doorway. The southern elevation has two fireplaces, the western being of a simple brick design, with the eastern having a more intricate decorated cast iron surround.

The plan of 1861 of the hospital shows the office with a central partition wall and a small internal lobby and entranceway centrally positioned along the northern wall. The western of the two rooms has a hearth and fireplace, but there is no evidence for one in the eastern room. The plan shows two parallel east-west aligned partitions in the eastern room, subdividing it into three. This would have made a peculiar arrangement of the space and consequently the function of the room is unclear, although it may have been used as a waiting room.

The plan evidence is corroborated by the surviving fabric. The doorway in the northern wall has subsequently been replaced with a window, and the different styles of fireplace on either side of the room suggest either different dates or that they are from different decorative schemes, as expected when there has been a partition wall.

When originally built, the office was self-contained with no access through to the Storehouse building to the south.

There remains some debate as to the date the North Office was added to the Storehouse. It pre-dates the construction of the main eastern range in the late 1850s, and it is possible that it was added in the building campaign of the early 19th century when the Fort was completely reordered. Thus the construction of the North Office is considered part of the phase 2 works. Also included in the phase 2 works are the narrowing of the main entrance on the west wall of the Storehouse building and the insertion of the door and windows through its southern wall. These alterations have been placed in the same phase as the construction of the North Office, although they may be revised to being a phase within the timescale currently allocated to phase 3. It would make sense for the matching façades of the North Office and the south elevation of the Storehouse to have been created at the same time, but it is also possible that the door and windows in the south wall were inserted in response to the loss of light caused by the construction of the eastern range.

5. The Eastern Range

The range of flat-roofed extensions built to the east of the Storehouse during the latter half of the 1850's are detailed in a plan dated October 1861. The eastern extension pre-dated the timber-framed Hospital structure. The plan designates the rooms, from the north as follows:-Store Room, Barber's Shop, a second Store Room, then a Kitchen. To the south of the Kitchen there was a pitched roof construction projected at right angles from the main facade through which a corridor led from the east into Ward 2 of the timber-framed Hospital. The same corridor gave access on the west to the Surgery.

5.1 The North Store

The North Store is the northern of the eastern range of rooms along the eastern elevation of the Storehouse. The range post-dates the addition of the North Office, but pre-dates the addition of the timber-framed Hospital building to the south. The North Store has a six panelled door giving access to the North Office to the west. It has a small squared six-light window in the northern elevation, a timber door giving external access to the east, and an

inserted four panelled door at the western end of the southern elevation leading to the next room in the range, the Barber's Shop (see **figure 13**).

In its original construction the North Store had no external access and was originally entered from the west via the North Office. The doorway in the eastern elevation is a post 1940s insertion into the position of a small squared window seen on a photograph taken of the hospital complex after a German bombing raid.

The walls are brick and constructed in Flemish Bond, and several decorative paint schemes can be seen. The latest of these is a pale green paint covering the whole of the wall. Below this is a scheme having a dark green dado with yellow brown paint above, and underlying both of these are coats of limewash.

5.2 The Barber's Shop

The Barber's Shop, the second of the eastern range of rooms, is built against the north-eastern corner of the original Storehouse building. In the western elevation of the Barber's Shop, the plinth and quoin of the external elevation of the Storehouse building can be seen (see **figure 14**). Also visible in this elevation is the jamb of one of the original Storehouse window openings. The brickwork of the later addition to the north (the North Office) can be clearly seen butting against the Storehouse brickwork.

The northern elevation of the Barber's Shop has an inserted doorway leading to the North Store. The southern elevation has an inserted doorway at its eastern end leading through to the South Store, and the eastern elevation has an inserted central doorway giving external access. This door has a planked panelled lower half with a six light upper section. There has been a later insertion of a three-light panel above the door that entailed raising the door lintel and heightening the frame.

The brickwork used for the construction of the elevations in the Barber's Shop is a mixture of pink\red bricks laid in Flemish Bond with a fine creamy coloured lime mortar. The faces of the internal elevations are uneven, bowing out in places. The paint finish in this room has a lower dado section (corresponding to the height of the original plinth seen in the western elevation) in dark blue with the upper a mixture of cream and grey. There is also much surviving limewash on the walls.

Excavation for services in the north-western corner of this room revealed a sequence of floor levels, with two brick floors below the present concrete one. The lower of these was constructed of red handmade bricks and was in a poor condition and heavily worn. This butted (and thus post-dated) the brickwork of the plinth of the 18th-century Storehouse building. The upper floor was constructed of similar bricks but they had survived in a better condition. The latest concrete floor level corresponds to the height of the threshold of the inserted northern door suggesting the brick floors are related to the earlier arrangement of the building.

5.3 The South Store

The western elevation of the South Store shows evidence for the external face of the east elevation of the Storehouse. The brick plinth can be seen, as can the southern jamb and the sill of the window opening, although the opening has subsequently been blocked with brickwork (see **figure 15**).

The northern elevation has the inserted doorway through to the Barber's Shop at the eastern end, and a cornice at the top of the wall constructed of two stepped timber planks. The southern elevation has the corresponding cornice, and also has a blocked doorway that would have lead through to the Kitchen to the south.

The eastern end of the room has suffered some structural damage or subsidence and remedial action has been taken in the form of a cast iron girder spanning between and tying together two brick piers constructed in the north-east and south-east corners of the room.

The doorway in the eastern elevation consists of five vertical timber panels with internal horizontal timber bars, and the central section of the door has been replaced.

The structure of the flat roof could be seen in the South Store, and this consisted of eight equally spaced softwood timbers (with a spacing of 0.31m, $12\frac{1}{4}$ ") spanning the length of the room. The timbers measured $0.24 \times 0.05m$ ($9\frac{1}{2} \times 2$ ") in section and were planked and laid on edge, sloping down slightly to the east.

The paint scheme in the South Store has the dark blue paint seen around the base of the wall in the Barber's Shop continuing into this room, again following the historic plinth level seen in the western elevation. Above the dark blue paint there is a cream coloured finish, although this can be seen to be overlying a grey paint which in turn overlies limewash.

5.4 The Kitchen

The access from the Kitchen to the Storehouse was via a door set into the northern end of the western elevation, with two steps accommodating the change in level between the two rooms. The floors were at different levels due to the raising of the floor level within the Storehouse when the concrete floor was poured in the middle of the 20th century.

The fireplace and chimney breast were centrally positioned in the western elevation. The hearth was constructed of brick and render and described a skewed semi-circle in plan.

The eastern elevation had a planked door at its northern end giving external access, and had two metal-framed casement windows, each with sixteen lights in two frames (see **figure 16**). These were replacement windows within the openings for the original larger windows. The original brick segmental-arched headed openings measured 1.30 x 1.10m (4ft 3"x 3ft 7").

The northern and southern elevations were rendered and showed nothing other than the paint scheme for the room, which had the upper half of the wall painted pale green, the lower being creamy grey.

Limewash had been applied to the external face of the kitchen wall up to a height of 2.3m (7ft 6") above ground level.

5.5 The Passageway

The external elevation of the Passageway shows the extent of the repair following the Second World War bomb damage. The eastern range to the south of the Passageway was damaged beyond repair, and the current buildings were constructed as replacements. The Passageway and the Surgery to the south have been rebuilt using the salmon pink and buff coloured bricks laid in running bond. The roof line of the porched extension to the Passage can be seen on the external face of the wall (see **figure 6**). The pitch of the roof was c.30deg, and the porch wall supporting it was a single brick thick.

From photographic evidence it is known that the porch structure had a doorway on the eastern wall with a window on the southern wall, possibly with a corresponding window to the north.

In the northern elevation of the existing Passageway there is a blocked window and a blocked door. At the eastern side there was also the roofline for the post-Second World War damage repair (see **figure 17**).

The door originally gave access to the Kitchen when the elevation formed the southern external face of the building prior to the construction of the timber-framed Hospital structure to the south in 1859-1861.

The Passageway encompasses the external eastern face of the timber-framed hospital building. This was constructed of overlapped planked weather-boarding nailed directly to the upright framing members.

A doorway has subsequently been inserted through the timber weather-boarding giving access to the timber-framed hospital structure from the east. Presumably this corresponded to the blocking of the doorway through to the Kitchen.

Excavation directly to the east of the inserted doorway uncovered an area of brick flooring much the same as that seen in the Barber's Shop excavations to the north.

5.6 The Surgery

The Passageway provided access to the west into Ward 2 of the timber-framed Hospital and to the south provided an entrance into the Surgery.

The original Surgery was located to the south of the Passageway. It was a brick built structure with a steeply pitched roof (c. 45deg). The eastern elevation had two rectangular

sash windows, and the door was located at the eastern end of the southern elevation. The door had a small flight of three steps leading into it. The surgery had been partially encompassed by later structures, the Passage porch to the north and the Hospital Sergeant's quarters to the south.

Following the Second World War bomb damage, the building was demolished and the present building replacing the Surgery was constructed. This structure was very plain, with access from the Passageway to the north. There was a metal-framed window on the eastern elevation and in the western elevation there was a disused fireplace, the opening of which had recently been plastered flush to the wall face. Internally the room had been dry-lined and painted (see **figure 18**).

There was an additional building appended to the south-eastern corner of the hospital building and this was removed during the HPSE conservation works. This was a post-war damage replacement for the Hospital Sergeant's Living Quarters. This original structure, probably dating from late 19th century, was brick built, square in plan, and had a shallow pitched roof. It had two sash windows in its southern wall, and a door and further windows in the eastern elevation. The associated chimney stack was in excess of 3m (9ft 8") high, the height being necessary to carry smoke away from the hospital.

A plan of uncertain date but with the Hospital still operational shows that Ward No3 had been converted for use as a schoolroom, the Surgery occupied the Kitchen, the former Surgery was in use as office accommodation, and the Barber's Shop had become a store.

5.7 External Buildings

Annexed to the external face of the North Office was a small store building, and a lean-to structure was constructed between this and the north-eastern corner of the building.

On the external face of the eastern range (between the North Store and the Barber's Shop) there is a vertical wall scar of a now-demolished structure. Above this, set into the wall, is an iron bar, and to the south there is a concrete floor slab. The function of this structure is unknown, but it may have formed a covered passageway alongside the eastern building range.

6 Bibliography

Centre for Archaeology 1998 Centre for Archaeology recording manual (draft),

English Heritage

Magrath P.A. 1992 Fort Cumberland 1747-1850 Key to an Island's

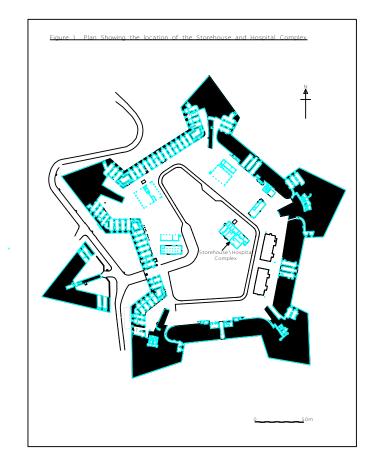
Defence, Portsmouth Paper Number 60

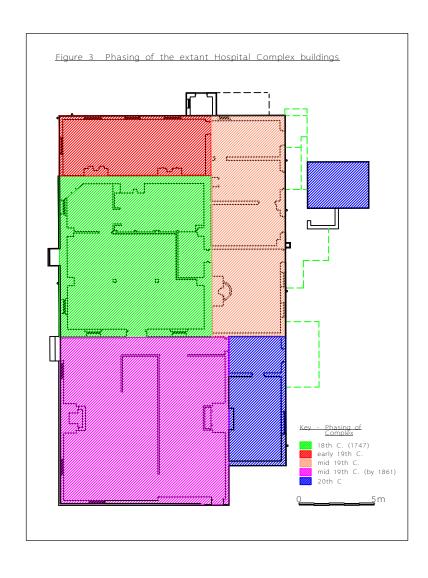
Roebuck J. 1998 Fort Cumberland Conservation Plan for Parade

Ground Buildings (draft), English Heritage

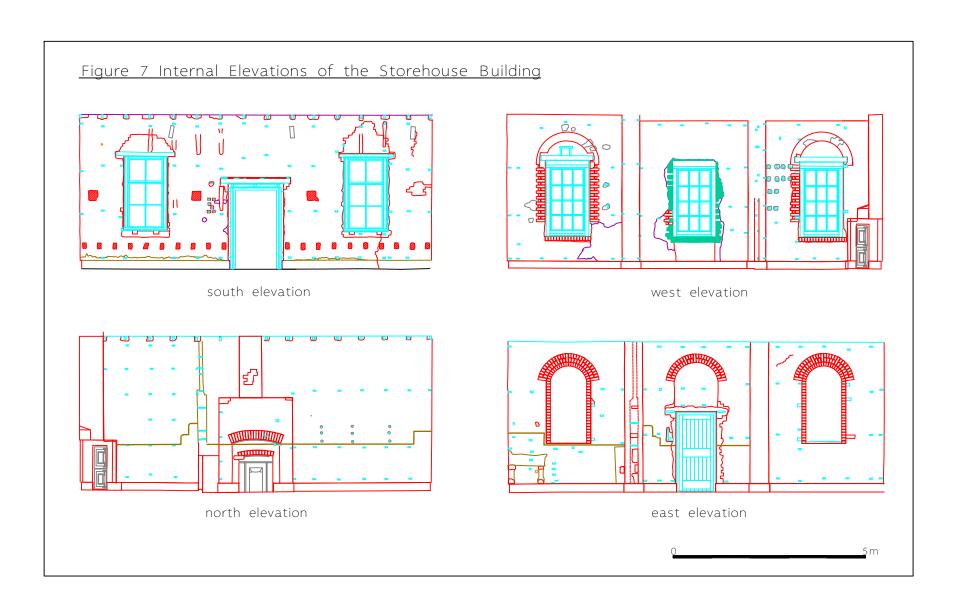
Acknowledgements

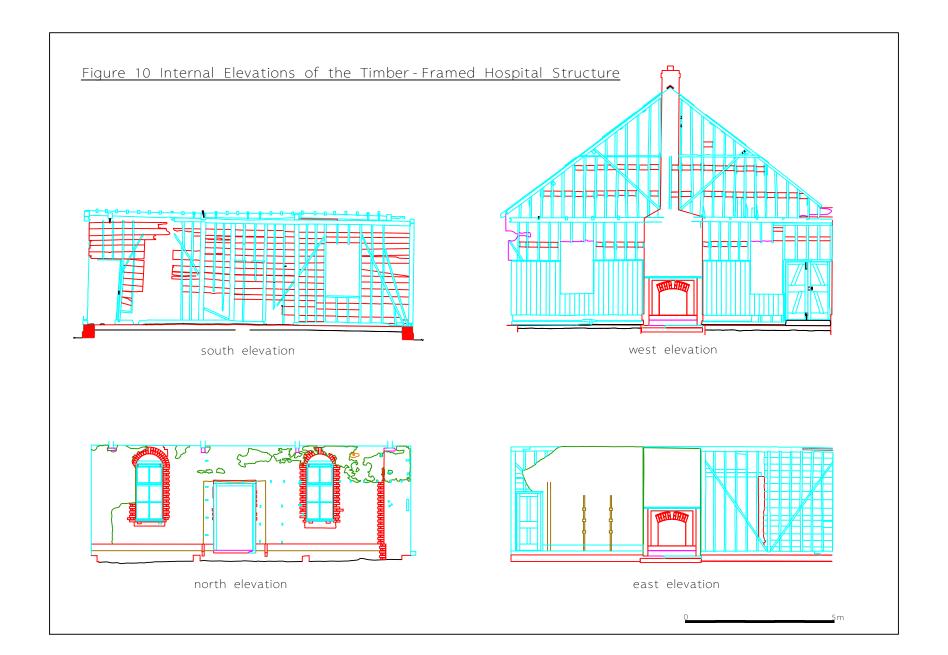
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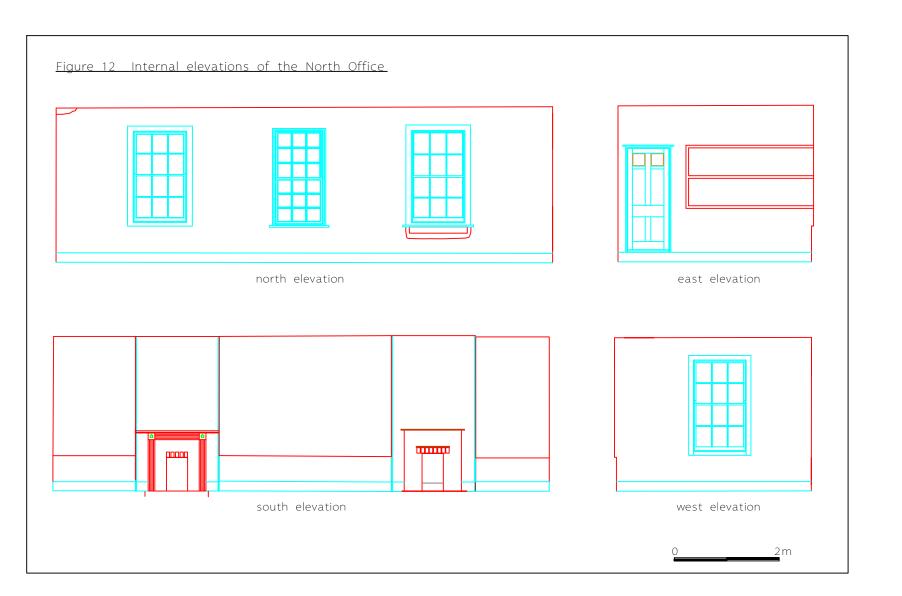


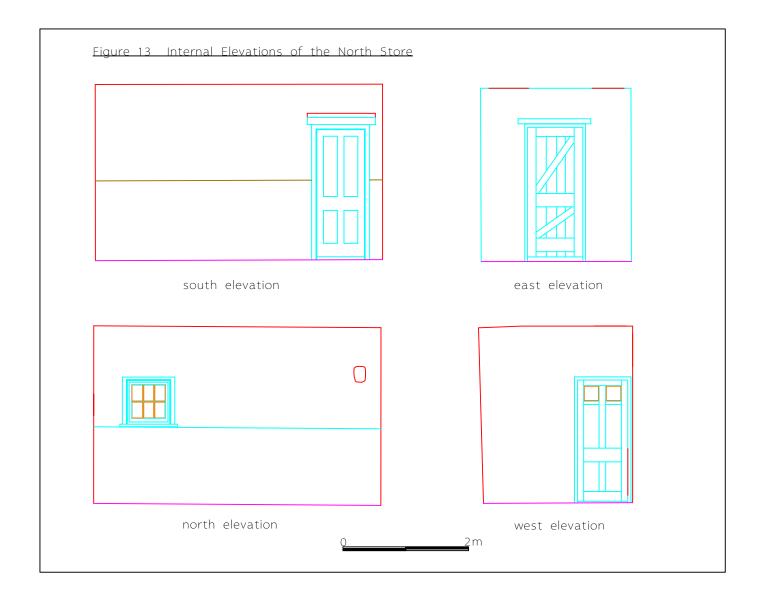




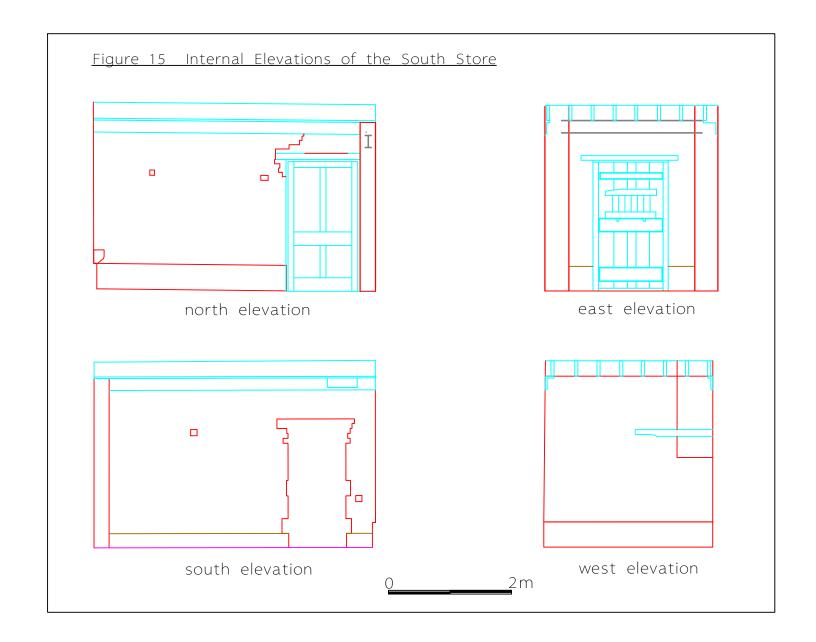


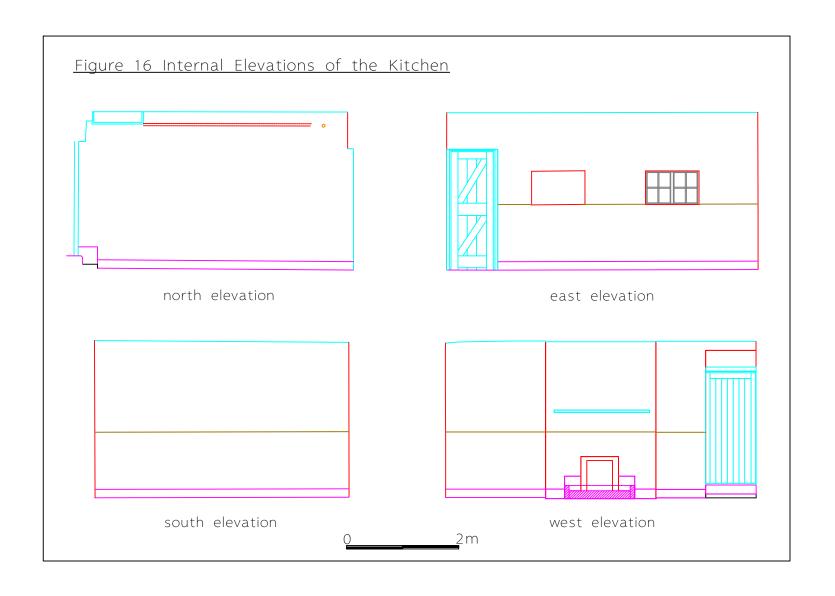


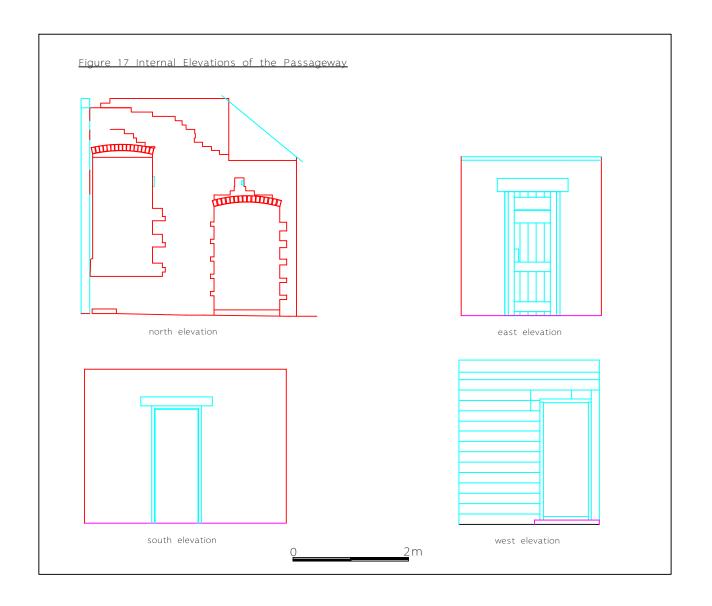


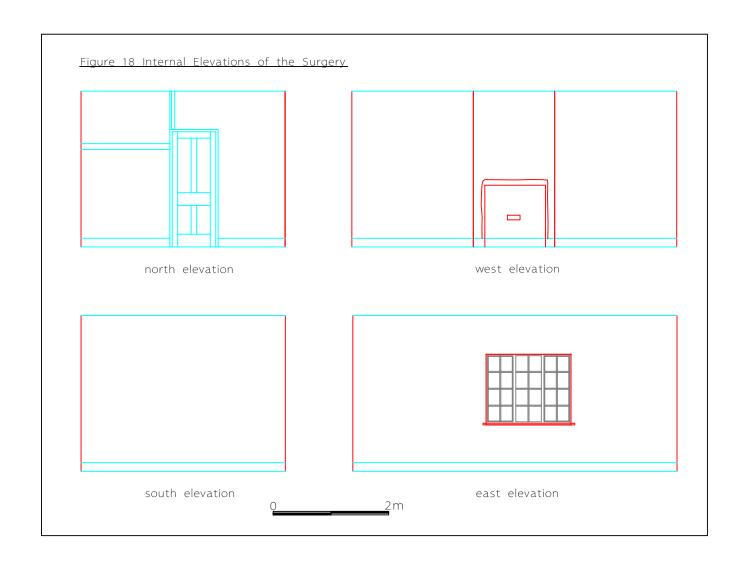














east elevation

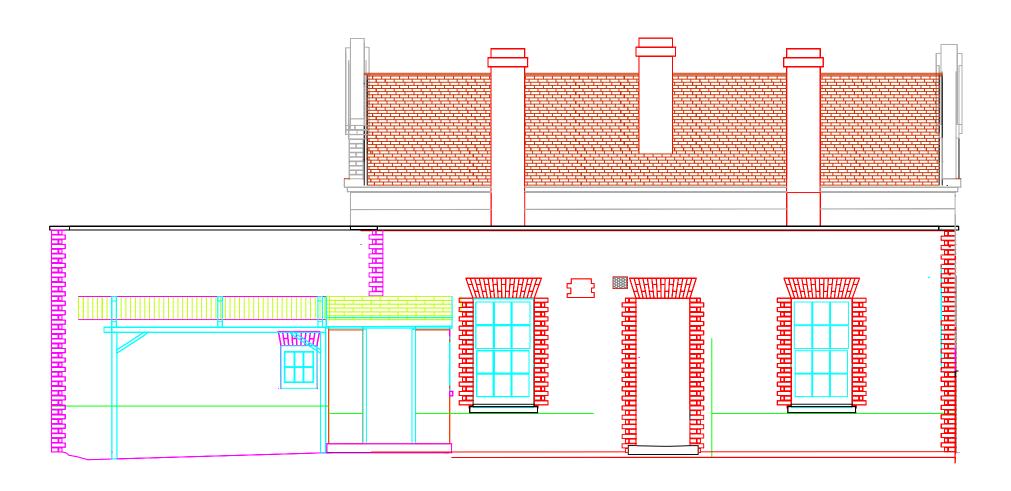






west elevation

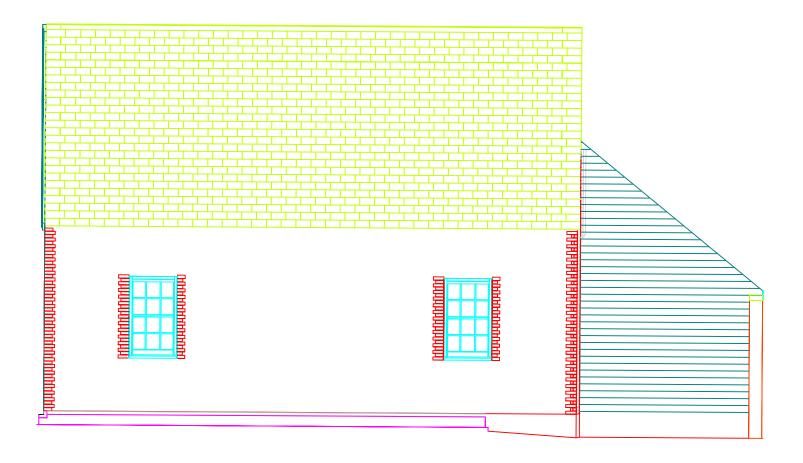




north elevation



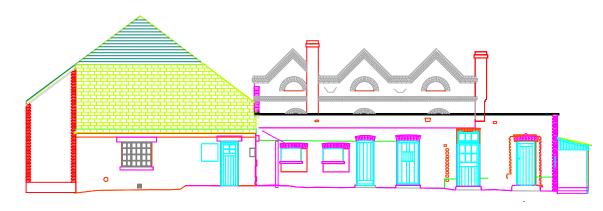
east elevation



south elevation



south elevation



east elevation



north elevation



west elevation

0_______<u>5</u>m