REPORT ON THE DEFENCE HERITAGE SITES AT CHATHAM COMMERCIAL DOCKS

Volume 1
The text and drawings

Victor Smith
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DEFENCE HERITAGE SITES AT CHATHAM COMMERCIAL DOCKS, KENT

Historic Building Survey

1. INTRODUCTION

1.1 On 28 November, 1996, the writer was asked by the Heritage Conservation Group of Kent County Council to historically record nine defence heritage sites adjacent to the southern boundary walls of that part of the former Royal Dockyard at Chatham now known as Chatham Commercial Docks. The sites concerned were:

1.1.1. *Site 'A'*. A rail obstacle and anti-tank blocks 150m east of the Gillingham Gate (NGR TQ 7757.6937).

1.1.2. *Site 'B'* Traces of an air-raid shelter behind the boundary wall on the eastern side of the Gillingham Gate (TQ 7743.6944).

1.1.3. *Site 'C'*. The railway signal at the side of the Dockyard railway 80m north of the Gillingham Gate (TQ 7744.6950).

1.1.4. *Site 'D'* Traces of an air raid shelter in front of the inner boundary wall on the western side of the Gillingham Gate. (TQ 7738.6945).

1.1.5. *Site 'E'*. A small pillbox behind the outer boundary wall 100 m SW of the Gillingham Gate (TQ 7735.6941).

1.1.6 *Site 'F'*. Exterior of a gateway through the inner Dockyard wall to the Victualling Depot. (TQ 7733.6953).

1.1.7 Site 'G'. Site of the demolished Victualling Depot between the inner and outer boundary walls, 100 m west of the Gillingham Gate (TQ7735.6945).

1.1.8 *Site 'H'*. A road obstacle 30 m to the east of the former Gunnery School (TQ 7720.6958)

1.1.9 *Site 'I'*. The elevated section of the Lower East Road where it curves around the eastern side of the former naval gymnasium (TQ 7697.6965).

1.2 The site survey was started on 5th December, 1996 and completed on 3rd January, 1997.

2. PROJECT BACKGROUND

2.1 The imperative for the historic building recording work was the then imminent construction of part of the Gillingham Northern Link road through the former Royal Dockyard. The sites recorded were either directly in the path of the road or otherwise likely to be affected by associated works.

2.2 The sites concerned originated variously as (a) part of the protection of the dockyard against ground and air attack during the First and Second World Wars (b) provision for the victualling of naval vessels from the final years of the nineteenth century and (c) as elements of the rail/road infrastructure of the yard from the later nineteenth century and opening years of the twentieth century.

2.3 The rail and road obstacles inspected are examples of one of a number of types of defence used to oppose routes of passage or of entry to strategically important sites during the Second World War. Such defensive features are being recorded and studied across the country under the Defence of Britain Project.

2.4 Air raid shelters were an integral part of the passive air defence for dockyard workers and naval personnel and, indeed, elsewhere for the general public across the country, factory workers and other groups of people. Other shelters existed within the dockyard but it is unfortunate that the sites to be recorded for this project had been largely demolished before survey. Air raid shelters can show variation in design and construction, an aspect of their history which has yet to be adequately studied.

2.5 The small 11-sided pillbox was a distinctive structural form for the protection of Admiralty sites in the Lower Medway and appears to date from the First World War.

2.6 The railway infrastructure and the signal standard were not a subject for measured and written survey and documentary study. Neither was the elevated road and its railing which formed part of the road system of the major new naval barracks completed by the first few years of the present century.

2.7 A Victualling Depot was a key element of Royal Dockyards and naval bases. Such depots were established in various places within Chatham Dockyard at different dates. The site examined for the survey appears to have been the last developed of these victualling sites and seems to have originated at about the turn of the nineteenth century. As with the air raid shelters, it is disappointing that its buildings had been demolished before recording of extant structures could take place.

2.8 The requirement given in the specification of the Kent Heritage Conservation Group was to preserve by record, evidence of the construction, development and function of the defence heritage structures visible in the structural fabric and remnants of fittings and to study and analyse such evidence. The resulting record was required to be framed in a manner suitable for subsequent interpretation and incorporation into a consideration of other similar wartime structures and the broader defence heritage context of the region.

3. METHOD

3.1 The recording work undertaken by the writer contained the following elements which are included in this report:

* A measured survey of the various structures to create a set of drawings
* A photographic survey (monochrome and colour transparencies)
* A written survey
* A limited study of readily available documentary evidence

3.2 As required, the railway signal, the elevated road and the gateway through the inner boundary wall to the site of the Victualling Depot were recorded by photography only.

4. HISTORICAL BACKGROUND

4.1 From modest beginnings in the sixteenth century, Chatham Dockyard, on the right bank of the River Medway, gradually developed in the early seventeenth century to become a building and repair yard of national importance. After a slight decline in the early 1700s, ensued a period of renewal from the end of the eighteenth century. Then in the 1860s and 70s there was a massive extension of the dockyard into St. Mary's Marsh. The sites recorded for the historic building survey were partly in the southern landward perimeter areas of the dockyard extension and partly within the outer and later boundary formed to contain the Victualling Depot and the naval barracks.

4.2 Military defences at the Dockyard itself were not a feature as it was originally built and extended. These were provided from the middle of the eighteenth century as the outlying Chatham Lines and, in the later nineteenth century, further out as the Chatham Ring Fortress. The Dockyard was, however, provided with a landward brick wall to secure it against illegal entry and theft of material from within. As the Dockyard developed such walls were extended or new ones constructed to enclose the expanding property. The Gillingham Gate and the wall extending east and west from it appear to date from the time of the dockyard extension.

4.3 In 1877 the dockyard became connected to the main civilian railway network. This was achieved by the laying of a single-track branch line from a point just to the east of Gillingham Station. From that direction it emerged from a long cutting to enter the lower-lying ground of the establishment on an embankment, about 150 m east of the Gillingham Gate.
(See plan of the dockyard for the situation in 1908)

4.4 During the First World War a number of defence posts were built at various points within the yard and across the Medway in the Admiralty establishments at Upnor, Lodge Hill and Chattenden. These appear to have included the small concrete pillboxes to be found within the dockyard and at those other places. (In an earlier survey of March, 1996, an example of one of these pillboxes was recorded by the writer behind the dockyard wall at Site 'F').

4.5 Chatham Dockyard gained additional military importance in the Second World War as it became the core of the Chatham Nodal Point. This was one of a number of points of resistance and strategic pivots in the south of England for use in the event of a land invasion of Britain. The Nodal point had an outer line of defence several miles out and an inner one of which part was the dockyard itself. During the wartime period, the rear perimeter wall of the dockyard was internally strengthened at various places with concrete-block buttresses, especially to the east and west of the Gillingham Gate. The point of access by the branch-line railway was secured by a rail obstacle. In addition, at the foot of either slope of the embankment on which the obstacle stood, anti-tank cubes were located. There was another rail obstacle (also recorded by the writer in March 1996) behind the gate in the dockyard wall at Site 'F', which formed the entrance for a spur from the Dockyard railway laid to serve the Victualling Depot.

4.6 Within the outer landward wall a concrete road obstacle was built facing along an internal road on the north side of the East Camp.

4.7 There was a range of other military defences adopted within the yard area, whose full extent await research. The defences were to be fought by any naval personnel present at the time and by a Home Guard battalion formed from the dockyard workers.

4.8 A network of dugouts and air raid shelters was provided throughout the dockyard for the protection of its workers and naval personnel against air attack and there were several instances of bombing of the yard area.

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5. DESCRIPTION *(see layout plan, pages of detailed plans and the plates)*

Site 'A'
The rail obstacle and anti-tank blocks east of the Gillingham Gate (see Figs 1-2 and Plates 1-17.

The rail obstacle

This part of the defences was conceived to deter access to the Dockyard via the branch railway line. The obstacle is located on the railway embankment itself, directly in front of the entrance gates to the Dockyard.

It consists of a pair of substantial monolithic concrete blocks (1.8 m high and 1.5 m wide) either side of the single-track standard gauge railway. Each block presents a vertical face to the south (the assumed direction from which an enemy would approach) and is sloped down to the rear. The blocks are transversely recessed with a 30 cm wide slot to receive a heavy moveable obstacle (probably a steel rail or joist) to close the way. The western of the blocks is mounted with a line of 8 steel rollers which can only have been intended to assist the movement of the obstacle into position. The purpose of the single 11 cm diameter iron pipe running through the top of the rear slope into the transverse recess of either block is not yet known.

As the blocks were built on the very edge of the embankment they were provided with additional support in the form of a single concrete buttress on their external sides.

The blocks are in fair condition, although the rollers and pipes exhibit corrosion. Damage to part of the concrete of the western block revealed 3 cm thick steel reinforcement bars used in its construction.

The gate and steel fence

The present railway gate structure consists of a pair of 3.45 m high yellow-brick piers of uncertain date, mounted with tubular steel gates. From these, the slope down either side of the embankment is secured by a 3 m high steel palisade fence set in a low wall and internally provided with a diamond pattern steel mesh. The fence connects with the brick piers of the perimeter wall of the Dockyard at the foot of the embankment.

The standards and cross-pieces of the fence on the lower two thirds of the slopes of the embankment may date from the 1870s or not long after. The construction is a mixture of wrought and cast-iron, with points provided atop the L-section standards. The major standards are surmounted by fleur de lis decorative tops and are supported externally by 'flying buttresses' of wrought iron secured to concrete blocks set in the embankment. The elements of the fence are fixed together with bolts and rivets. The upper third of the fence is constructed of angle iron with forked tips in the manner of a Dacoit Fence. It is secured with welds. This must date from the twentieth century. All parts of the fence had been painted in Admiralty Grey.

The anti-tank cubes

On either side where the gateway fence angles rearwards at the foot of the embankment on a horizontal plane it is reinforced by four substantial concrete anti-tank cubes (1.4 m high x 1.7m x 1.5 m on the western side and 2.4 m high x 1.7m x 1.5m on the eastern side). These were formed of individual concrete blocks (46 x 22 x 22 cm) laid like bricks, with the fence passing through the centre of the cubes, and the space between the two halves grouted in mortar. The cubes on the eastern side of the embankment are at a higher level than those on the western side.

The tunnel

Passing under and through the embankment is a 2.9 m high concrete lined tunnel of near-horseshoe section. Its interior reveals the marks from horizontally placed timber formwork and shuttering. This probably originates from the date of the construction of the embankment to form as a way through for the internal wall-walk of the perimeter wall. Its role as a defensive communication during the Second World War is likely to have been coincidental.

There is a staircase from the western end of the tunnel to the top of the embankment behind the railway entrance gate. At that point is an extemporised wooden hut erected for the railway movement and security staff. From pencilled graffiti on the wall inside, the last train using the branch line was in 1993, long after the Dockyard had ceased to be used as a naval establishment.

Site 'B'
The former air raid shelter behind the dockyard wall on the eastern side of the Gillingham Gate (see Fig. 3 and Plates 18-33).

From the physical evidence remaining, this had been a 44m long, rectangular surface shelter built against the inside face of the dockyard wall.

The shelter was demolished about 12-18 months before the visit to the site, leaving only the 16 cm-thick scar-line of the remnants of the horizontal steel mesh-reinforced concrete roof let into the brick wall, the white-washed wall below and three transverse internal walls (traverses). Traces of a cable line for internal lighting of the shelter may be seen just below the scar-line of the roof.

Three entrances to the shelter from Wharf Road on the outside of the wall and eleven rectangular air-vents are visible as later blockings. Above the lintels of each of the entrances which, are higher than the main roof line, is a short further concrete scar-line, with traces of a mortar line connecting with the top of the main roof. This indicates that there had been a slightly raised entrance structure.

The remnants of two courses of brick on top of the transverse concrete walls of the shelter suggest that they made up the height to the ceiling of the former roof of the shelter. The transverse walls divided the shelter into three sections. The process of demolition of the shelter removed all but slight traces of its end walls and all of the dockyard-facing long side wall. The latter was presumably provided with doorways to allow access from within the dockyard. Mr.Bernard Thompson, KCC Surveyor, who saw the building before demolition, recalled that the walls had been constructed of concrete blocks and were in poor condition.

The seventeen concrete block buttresses added against the inside of the dockyard wall appear to have been mainly to strengthen but at the three openings of the shelter to the street outside the wall, they formed part of the entrance structure. They are constructed of individual concrete blocks (46 x 22 x 22 cm) mortared together.

Site 'C'
Signal at the side of the Dockyard railway 80 m north of the Gillingham Gate (see Plates 34-36)

This was not researched and was recorded by photography only. However, Mr. D.G. Miall has suggested in a personal comment that its finial is typical of the form adopted by the London, Chatham and Dover Railway.

Site 'D'
Former air raid shelters in front of the inner dockyard wall on the western side of the Gillingham Gate (see Fig. 4 and Plates 37-47)

From plan evidence (inset in Fig. 4) there appears to have been two shelters within the re-entering angle formed by the 1870s wall and the later outer wall built to enclose the Victualling Depot.

<u>The east-west shelter</u>

This also appears to have been a surface shelter and survives as the 16 cm-thick scarline of its concrete roof (also reinforced in steel mesh) let into the 1870s wall, a whitewashed wall below, with some possible traces of a concrete floor at the base of the wall. From the physical evidence remaining, the shelter was 23 m long and its width of 3.5 m may be deduced from the scarline on the north end of the north-south of the angled walls. The western end of the shelter is just visible as the remnants of its concrete blockwork. The process of demolition and of earth movement has destroyed all obvious traces of the other walls which must have been provided with doorways for access. According to Mr. Thompson these were also of concrete blockwork and embanked with earth part of the way up. Any transverse internal walls of the shelter (traverses) are likely to have been

built inwards from its vanished parallel long side wall as they have left no trace on the 1870s dockyard wall.

The north-south shelter

This shelter is known from an Ordnance Survey map as set back from the north-south wall. (see again the inset in Fig. 4) It has left no obvious remains but Mr. Thompson recalled that it was constructed as a surface shelter of concrete blocks, also piled with earth against its long western wall nearly as far up as its roof.

The eight concrete buttresses along the inside of the north-south wall were of similar design, construction and purpose to those on the eastern side of the Gillingham Gate. The lower half of the wall itself is built of yellow brick and the upper half is of later red brick. There had originally been two entrances through this wall, later blocked in red brick.

Site 'E'
The pillbox behind the outer boundary wall 100m SW of the Gillingham gate (see Fig. 5 and Plates 48-56)

This is a 2.4 m high 11-sided concrete structure with a low-domed top located 2 metres north of the wall built to enclose the Victualling Depot. It has 5 horizontal loopholes through its 34 cm thick walls. It was entered through a low doorway on its eastern side which was closed by an externally hinged 30 cm thick concrete door, with inner and outer steel bar handles. Vertical slots in the inside wall of the pillbox were for the placement of a timber lining of which fragmentary traces remain. Externally, there is a zinc rainwater apron on the top of each loophole, fixed into a timber block recessed into its host concrete. There are also external traces of three layer-stages of concrete casting. The entrance door and the south-west face of the pillbox are pierced by 6 cm circular and horizontal holes. Their purpose is at present unknown. The lower interior of the pillbox was infilled with debris so that the depth of the floor could not be established.

Site 'F'
Exterior of the gateway though the 1870s Dockyard wall to the Victualling Depot (see Plate 57)

This was recorded by photography only.

Site 'G'
Site of Victualling Depot (see Fig. 5a and Plates 58a-58d)

In the area immediately to the north of the pillbox are ground traces of a number of demolished buildings of the Victualling Depot. These comprise the fragmentary concrete floor of the vegetable store, the red ceramic tiles of the offal house and the industrial bricks and concrete flooring of the slaughter house, cattle pound and cattle lair. The remains were too overgrown to define shapes but these are known from the plans of the area at. Fig. 5a.

Site 'H'
Road obstacle 30 m east of the former Gunnery School (see Fig. 6 and Plates 59-67)

This faces east and is located astride the 3m wide internal road at the western extremity of the East Camp (demolished). Its construction, shape and size is the same as the rail block at Site 'A', except that there had never been a roller assembly for the movement of the obstacle into position and it had no side buttresses. There is an excavation in front of the vertical end of the northern of the two blocks which reveals that the block had been built directly on top of a thin layer of brick rubble. The purpose of the two chamfered concrete slabs in front of the vertical ends of the blocks is not known. Painted visibility markings of later date are extant on the front ends of the blocks.

Site 'I'
Elevated section of the Lower East Road (see Plates 68-78)

This was recorded by photography only.

6 DISCUSSION

The recorded structures give useful contributory information about the pattern of the military and civil defence of the Dockyard during the First and Second World Wars, but especially of the latter.

First World War

Research at the Public Record Office (Plan WO78/4429) has revealed the existence of an entrenched defence line for Chatham in a location similar to that of the outer defence line of the Second World War. In addition, a drawing of the Dockyard basins shows 'blockhouses' where the small concrete pillboxes either exist or are thought to have existed. The plan (possibly dated to 1914) does not show defences in the vicinity of the landward perimeter walls but pillboxes were clearly added later.

Second World War defences

Research at the Public Record Office (WO 199/77) has also revealed that in March, 1941, the garrison of the Chatham Nodal Point was about 5,000 men, to be reinforced by No. 5 Commando on 'actions stations'. The majority of the garrison were Home Guard, Naval

Ratings and Royal Marines, with about 1000 regular soldier, of whom only a small number were infantry. A report by Admiral R.P.E. Drax of 17 March, 1941 commented:

'The Military scheme for the defence of Chatham aims at holding an outer line based on the old fortifications on the outskirts of the towns of Rochester, Chatham and Gillingham. There is an inner line running along the old ditch which surrounds Chatham itself and forms a good anti-tank obstacle. The left sector of the outer line was allocated to the Royal Navy for holding but the provisions of Admiralty Letter M.02873/41 of 26th February, 1941, forbid this and the use of naval armed forces has now been limited to the defence of their own establishments.

There are, therefore, insufficient troops to hold the outer defence line against armoured mobile columns that may break through from the SE or against a strong force of parachutists. The Naval armed forces are confined to the inner line which runs so close to the Dockyard, RN Barracks and Area Combined Headquarters that these establishments could not be held in the face of a strong attack supported by artillery.

'.....There is much to recommend the policy of non-evacuation of Nodal points. It is, however, very desirable that there should be sufficient forces available to hold important positions against attacks from behind the main battle front with some hope of success. At present this is not the case at Chatham and Sheerness. While it is confidently expected that the invaders will eventually be thrown back, much damage to Admiralty Establishments will be caused and loss of officers and men required for sea service involved, if the approaches to Chatham and Sheerness are not held in adequate strength.'

The defences of the dockyard need to be seen in this context.

The inner line referred to in the report consisted of (a) the rampart and ditch of the old Chatham Lines which enclosed Brompton Barracks and the whole of the dockyard before the 1860s and (b) the landward perimeter of the Dockyard Extension. Anti-tank pimples may be seen not far from the Gillingham Gate in front of the Lines on the north side of Medway Road.

Within this inner line, Chatham Dockyard formed a discrete defensible area. The perimeter walls formed a defence of sorts and the internal buttresses may be interpreted as a strengthening of this as a barrier. The obstacles at Sites 'A' and 'H' were not expected to prevent entry of the enemy on their own. They were simply points at which an invader would be slowed or halted long enough for the firepower of the defenders to be used in order to neutralise or destroy that threat. We need to discover the form which the defensive firepower took and how it was to be used. The railway link with the dockyard was extremely important during the wartime period and it had to be kept open. Its obstacle was to hinder tracked or wheeled vehicles which might attempt to enter the dockyard during an attack. The Gillingham Gate must also have been provided with a road obstacle of which no obvious traces remain.

The Obstacle at Site 'H' assumed that an enemy had already breached the outer wall/fence near the Gillingham Gate. The windows of the dockyard buildings would then have come into use as firing positions. However, by this stage the dockyard would probably have been on the point of being overrun by an attacker.

As a prime bombing target there were many air raid shelters spread over the area of the dockyard and Chatham in General was Category 'A' (the highest risk classification) for Civil Defence purposes. The town of Chatham had a high shelter provision even for a Category 'A' area. This may in part have been because Nodal Points were given a higher shelter priority.

The three shelters at the Gillingham Gate will have satisfied regulations for shelter construction but, with their exposed 16 cm thick concrete roofs, only at a minimum level, akin to the broad mass of civilian surface shelters. The physical evidence remaining of the shelter on the eastern side of the Gillingham Gate includes the provision of traverses to limit the destruction and casualties from a bomb actually bursting inside. The absence of traverses had been criticised in the case of a bomb damaged shelter at the dockyard at Plymouth which had received considerably greater overhead cover than the shelters examined by the writer at Chatham.

Mr. Thompson remembered the presence of traverses in both the shelters on the western side of the Gillingham Gate. In the case of all three shelters at the Gillingham Gate, the space between the exposed end of the traverses and the opposing wall would have formed a way through for shelterers to pass along the inside. It is likely that seating for the shelterers was in the form of wooden benches placed against the insides of the long side walls. The shelterers would have been a mixture of naval personnel and Dockyard workers. The deployment of shelters at the Dockyard was probably related to concentrations of naval personnel and workers at various points.

The arrangements for the occupation of shelter accommodation initially adopted at the Dockyard were very disruptive to the working of the yard as the sounding of a general air raid alert for north Kent could lead to nearly the whole of the work force taking shelter for hours on end, resulting in the termination of important work. As a result, the arrangements were streamlined and personnel were signalled to take shelter only if an air attack on the Dockyard itself actually appeared imminent.

7 END COMMENT

Although the surveys have provided useful information, the defences of the dockyard itself do merit a dedicated comprehensive study to uncover the whole of their extent, evolution, form and development. It may also be commented that despite their interest and importance, the buildings of the Dockyard Extension in general appear to have attracted less academic attention that those of Chatham Historic Dockyard. There appear to have

been a number of unrecorded losses including, on the military side, two anti-aircraft gun towers.

8 THANKS

The writer would like to thank Mr. Bernard Thompson, KCC Surveyor, for his time in relating to him his recollections of the shelters at the Gillingham Gate when they were in a complete state.

Victor TC Smith

15 February, 1997

FIGURES

(with layout plan at the front and map of the Dockyard in 1908 and of the Chatham Defences in 1941 at the end)

LAYOUT

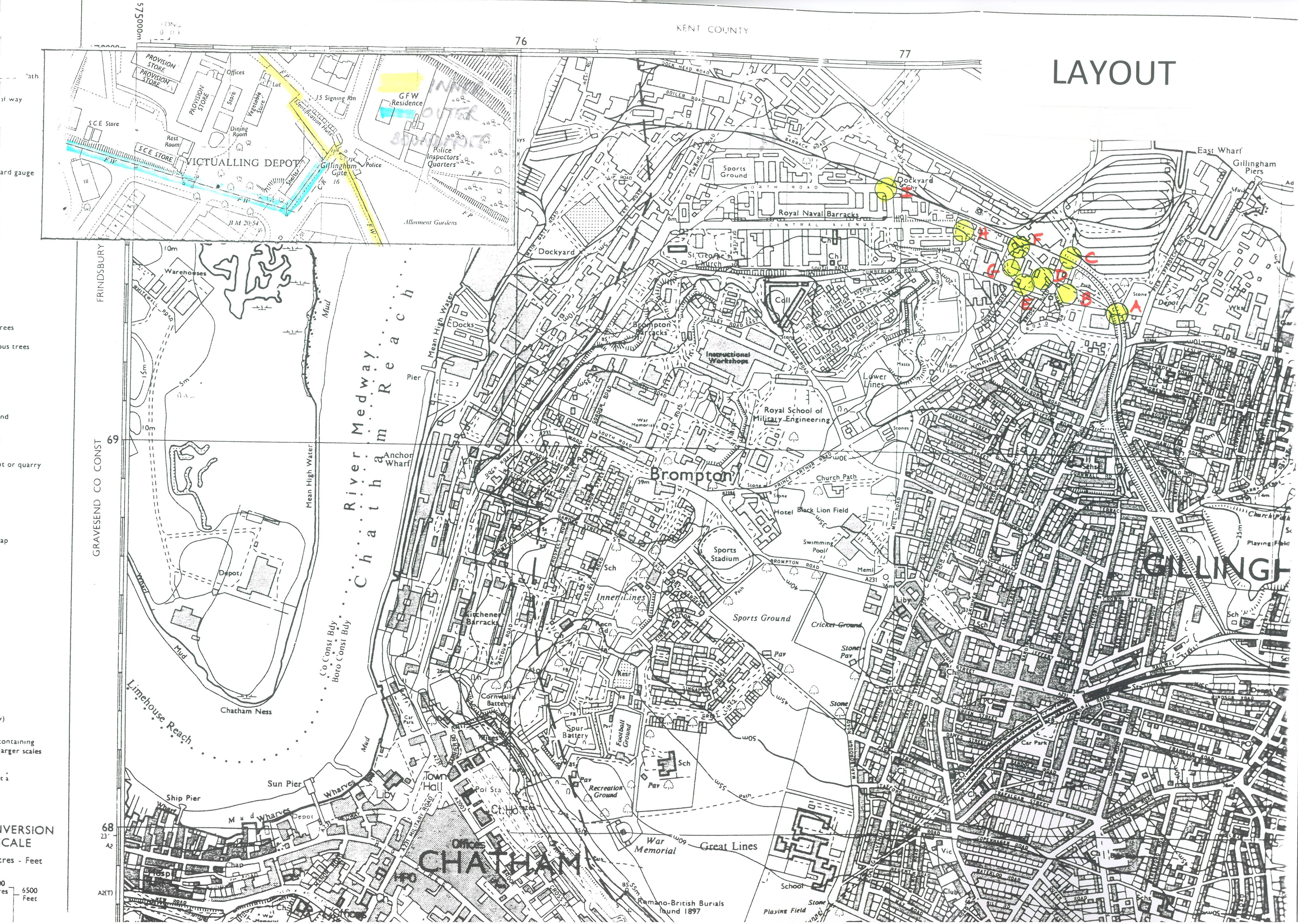
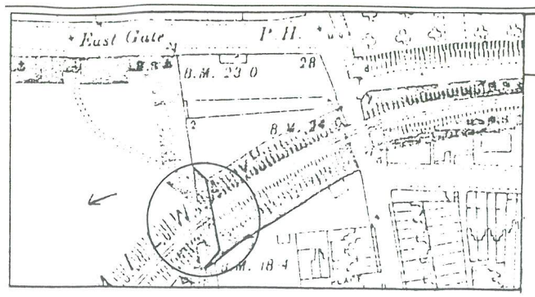

KENT COUNTY
76
77
VICTUALLING DEPOT
PROVISION STORE
GFW Residence
Police Inspectors' Quarters
Gillingham Gate
Allotment Gardens
East Wharf
Gillingham Piers
Sports Ground
Royal Naval Barracks
Dockyard
St George's Church
Brompton Barracks
Instructional Workshops
Royal School of Military Engineering
Lower Lines
Brompton
Black Lion Field
Swimming Pool
Sports Stadium
Inner Lines
Kitchener Barracks
Sports Ground
Cricket Ground
Spur Battery
Football Ground
Recreation Ground
War Memorial
Great Lines
Romano-British Burials found 1897
Playing Field
School
River Medway
Chatham Reach
Anchor Wharf
Chatham Ness
Limehouse Reach
Sun Pier
Ship Pier
Town Hall
CHATHAM
GILLINGH
FRINDSBURY
GRAVESEND CO CONST
69
68
A
B
C
D
E
F
G
H
I

FIG. 1 SITE 'A'
RAIL OBSTACLE AND ANTI-TANK BLOCKS

Scale 1: 100 — 3 M

Location



Brick piers
Tubular gates

Steel fence
with anti-tank blocks at base

Obstacle blocks

Brick wall

Concrete

ELEVATION

Floor of tunnel

Tunnel entrance

Tunnel entrance

Security hut

Railway lines

Anti-tank blocks

Anti-tank blocks

blocks

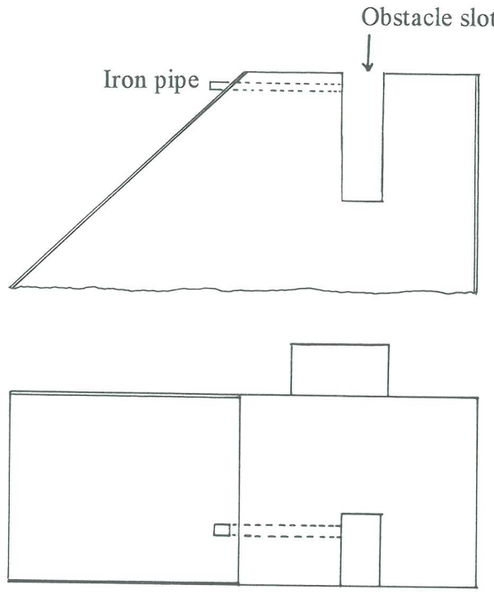
N

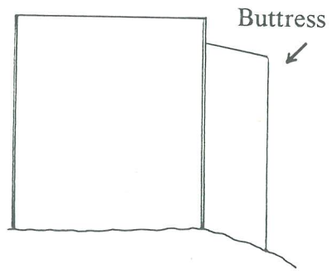
PLAN

Obstacle

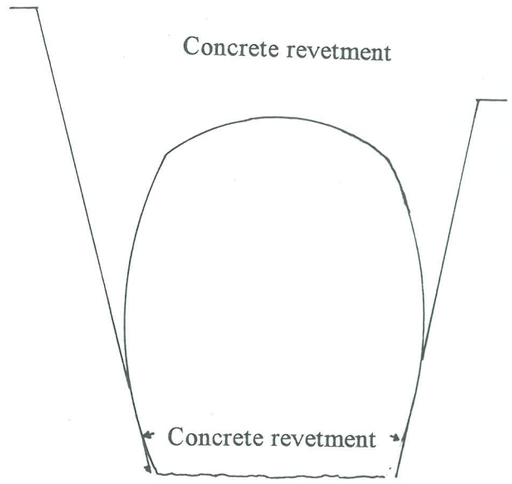
FIG. 2 SITE 'A'
DETAIL OF RAIL OBSTACLE AND ELEVATION OF WESTERN TUNNEL ENTRANCE

Scale 1:50 — 3 M

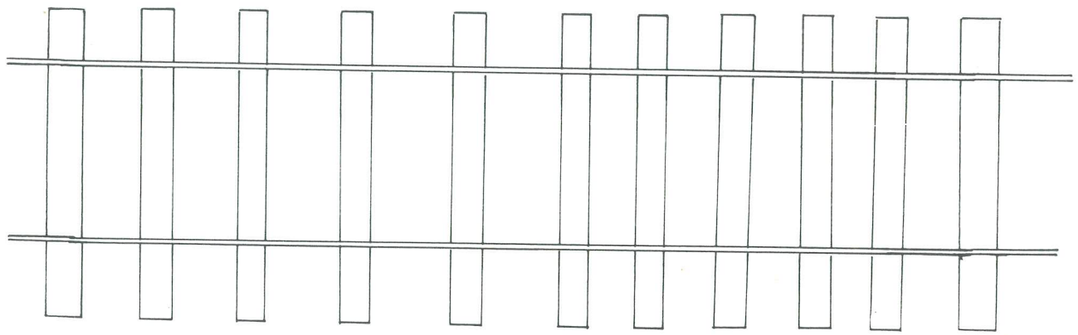


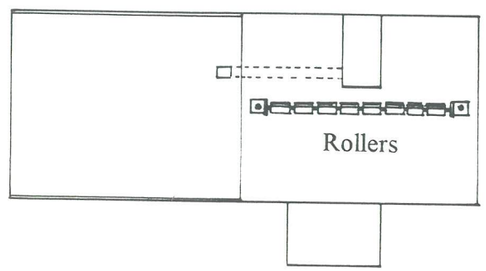


Side and front elevations of obstacle block

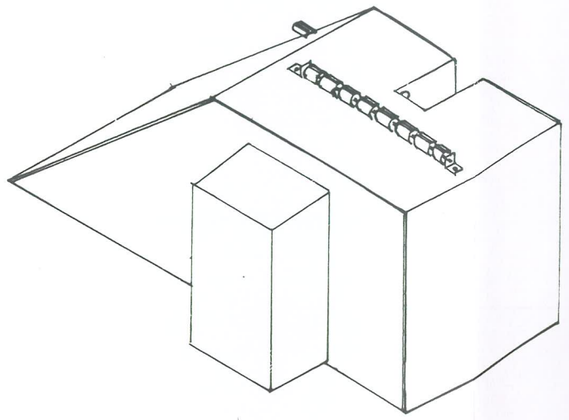


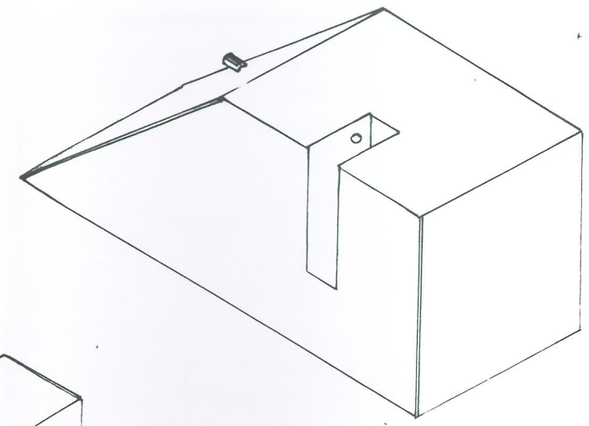
Elevation of western tunnel entrance





Plan of obstacle blocks

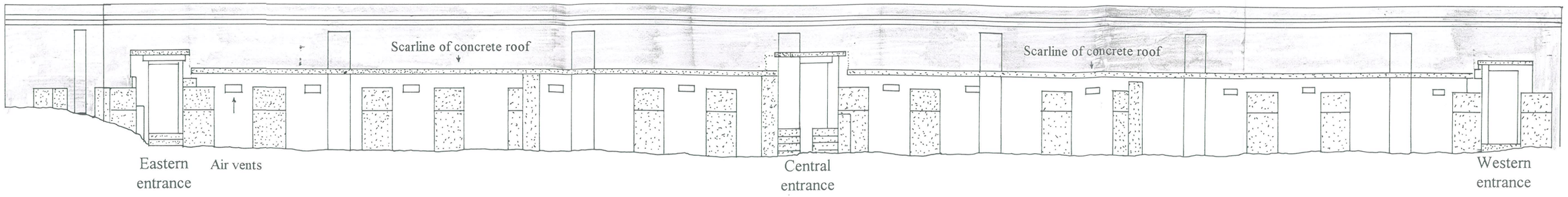


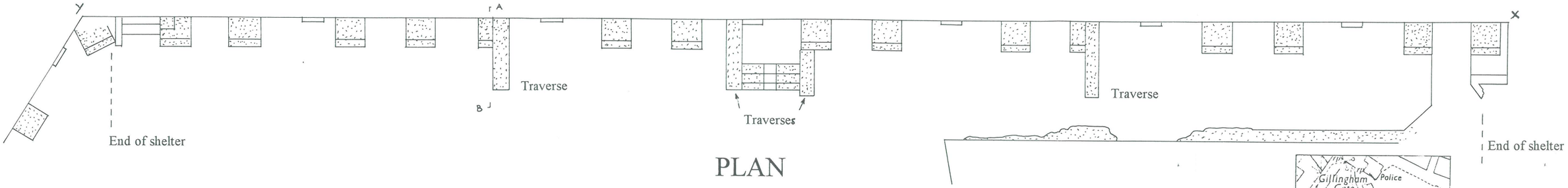


Isometric view of obstacle blocks

Unshaded area whitewashed wall

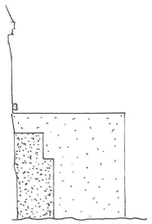
ELEVATION





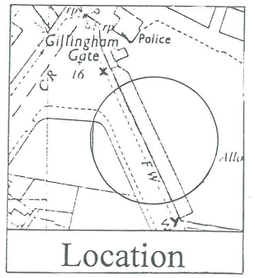
PLAN

Scale 1: 100 10 M



SIDE ELEVATION AB

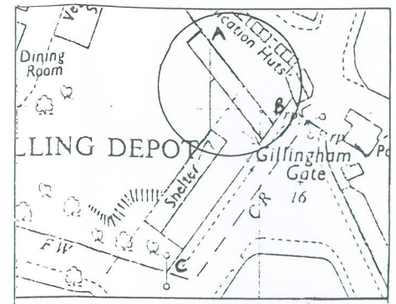
N



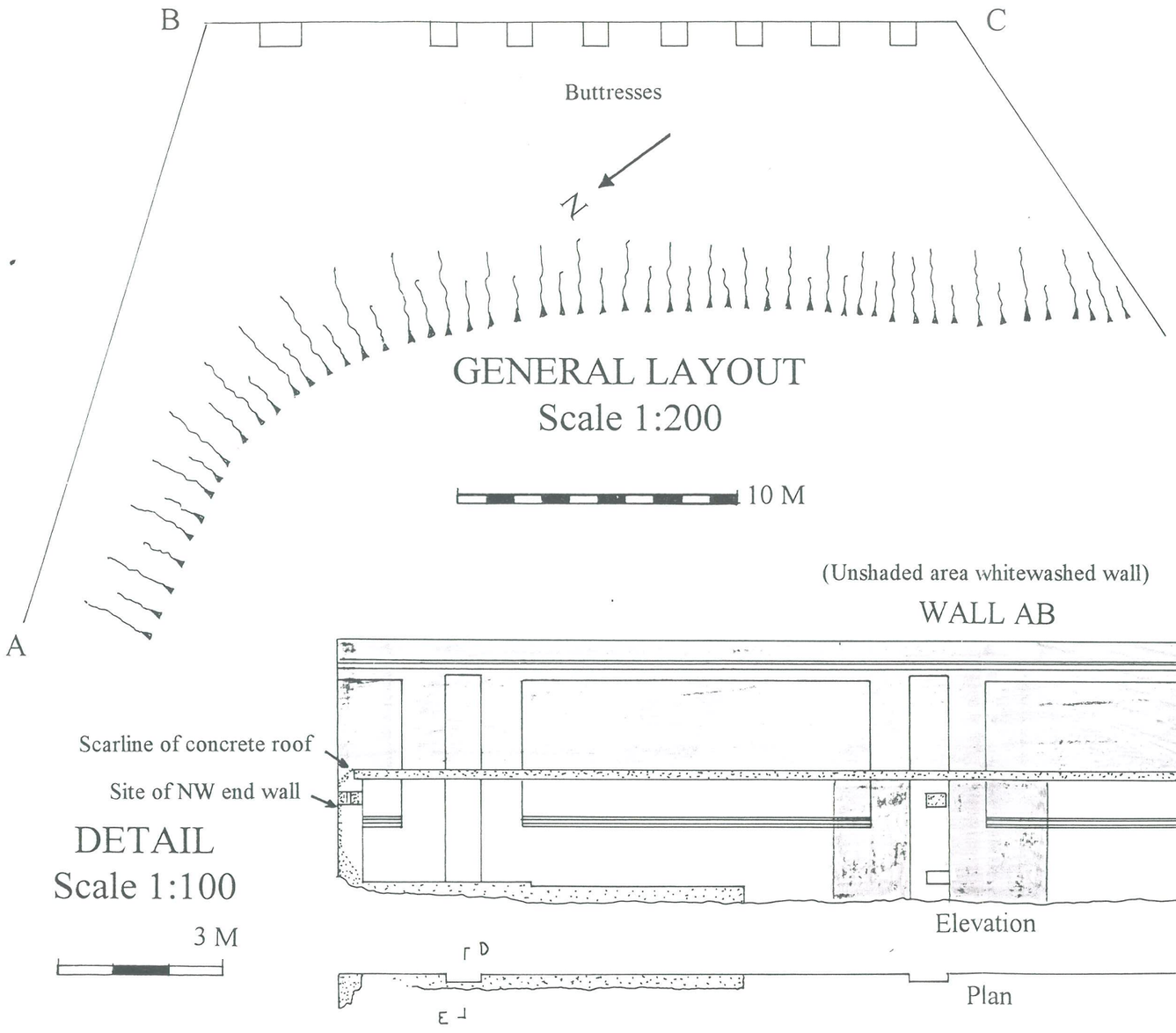
Location

FIG. 3 SITE 'B'
AIR RAID SHELTER
ON EASTERN SIDE OF
THE GILLINGHAM GATE

FIG. 4 SITE 'D'
AIR RAID SHELTER ON WESTERN SIDE OF THE GILLINGHAM GATE

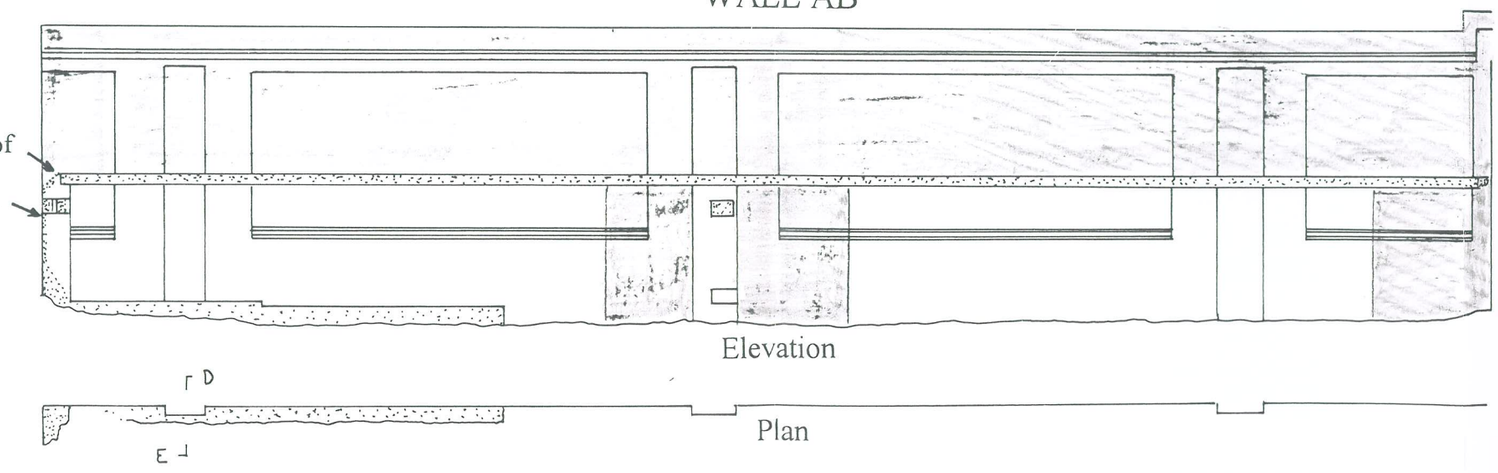


Location

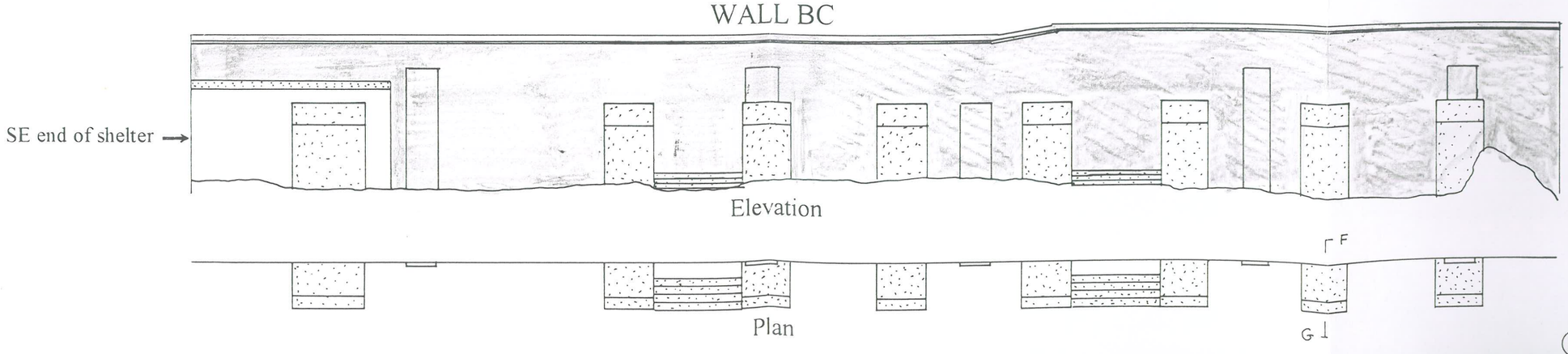


(Unshaded area whitewashed wall)

WALL AB



WALL BC



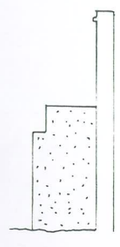
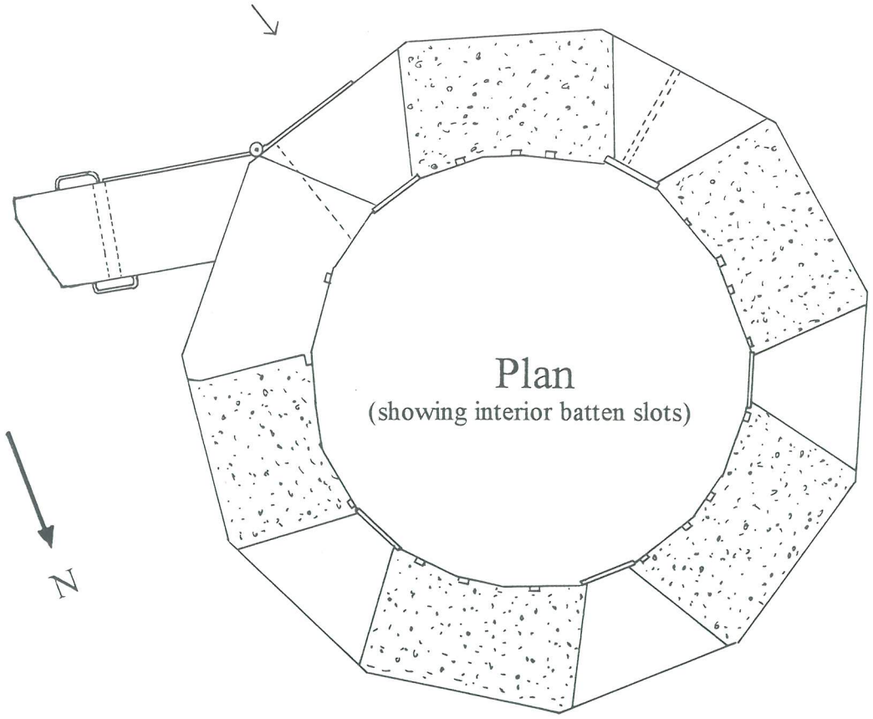
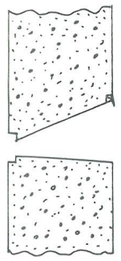


FIG. 5 SITE 'E' PILLBOX INSIDE BOUNDARY WALL SW OF THE GILLINGHAM GATE

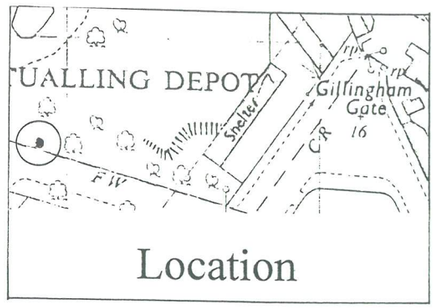
Scale 1: 20

1 M



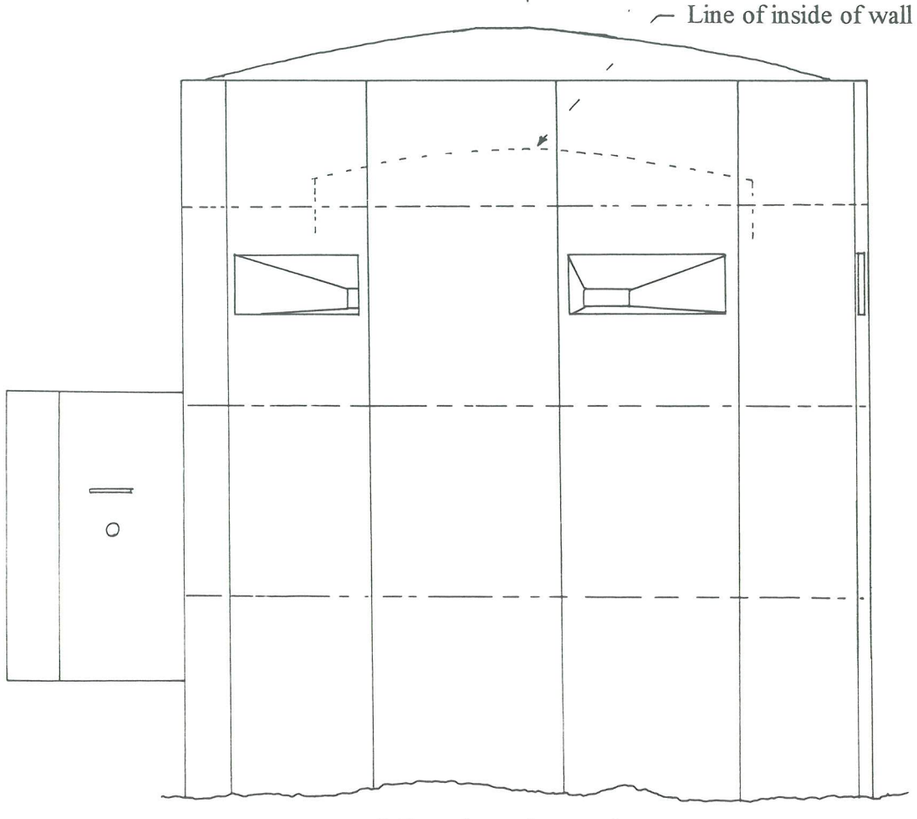


Section through loophole

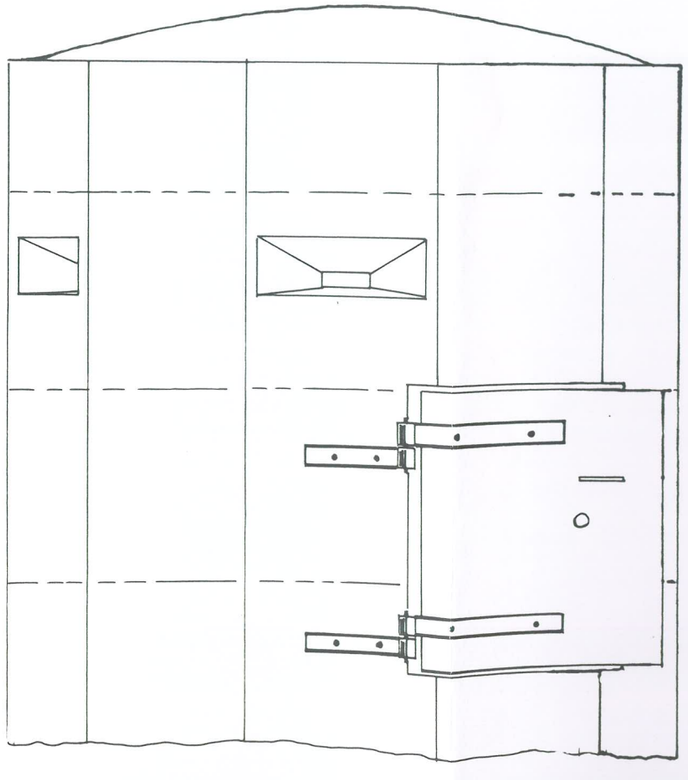


Location

Line of inside of wall and ceiling



North Elevation



South Elevation

1911 Corrected to 1943

Ordnance Survey 1943

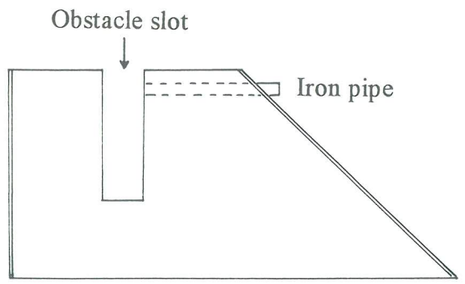
SCE dwg No 659/43

Fig. 5a

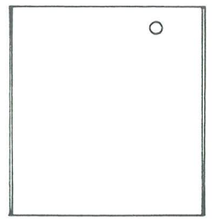
FIG. 6 SITE 'H' ROAD OBSTACLE EAST OF FORMER GUNNERY SCHOOL

Scale 1:50

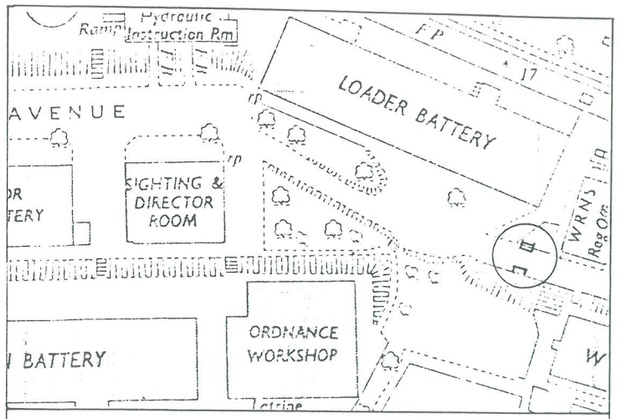
3 M



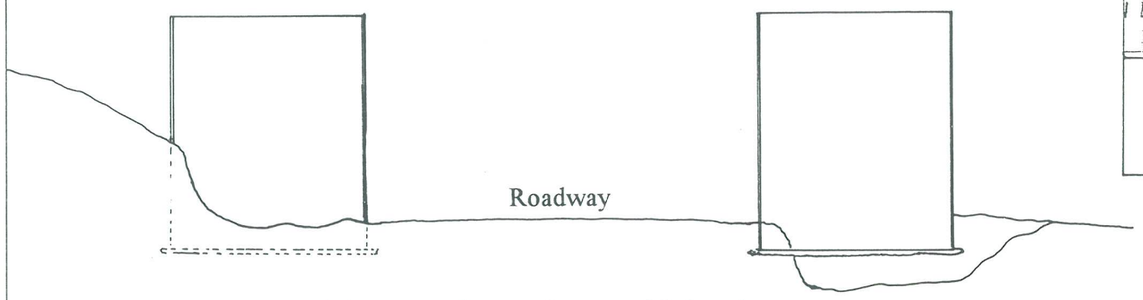
Interior side elevation of one block



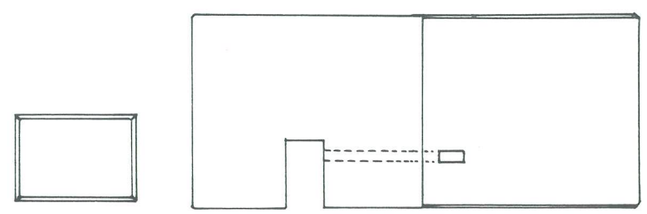
Rear elevation of one block



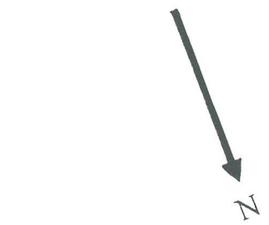
Location

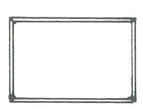


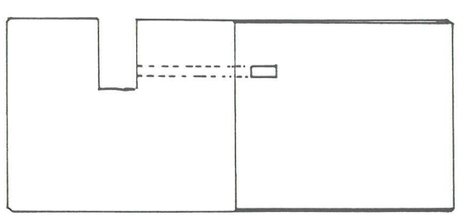
Front elevation of blocks

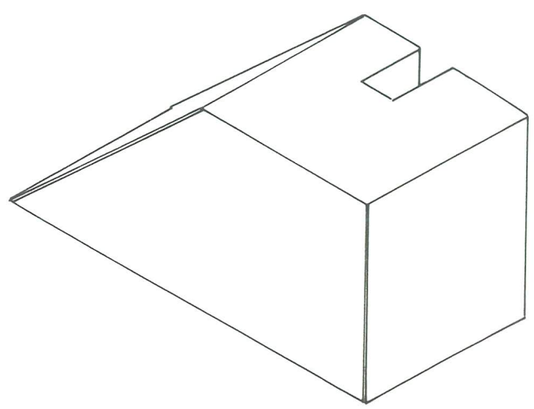


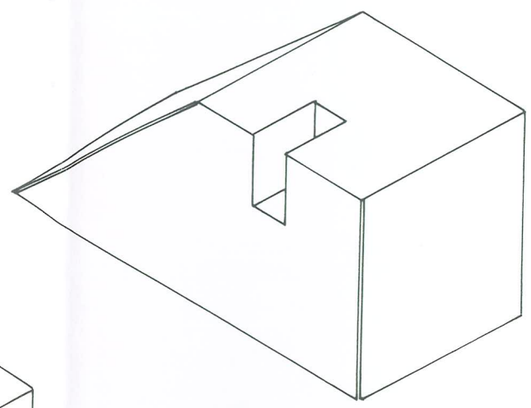
Plan



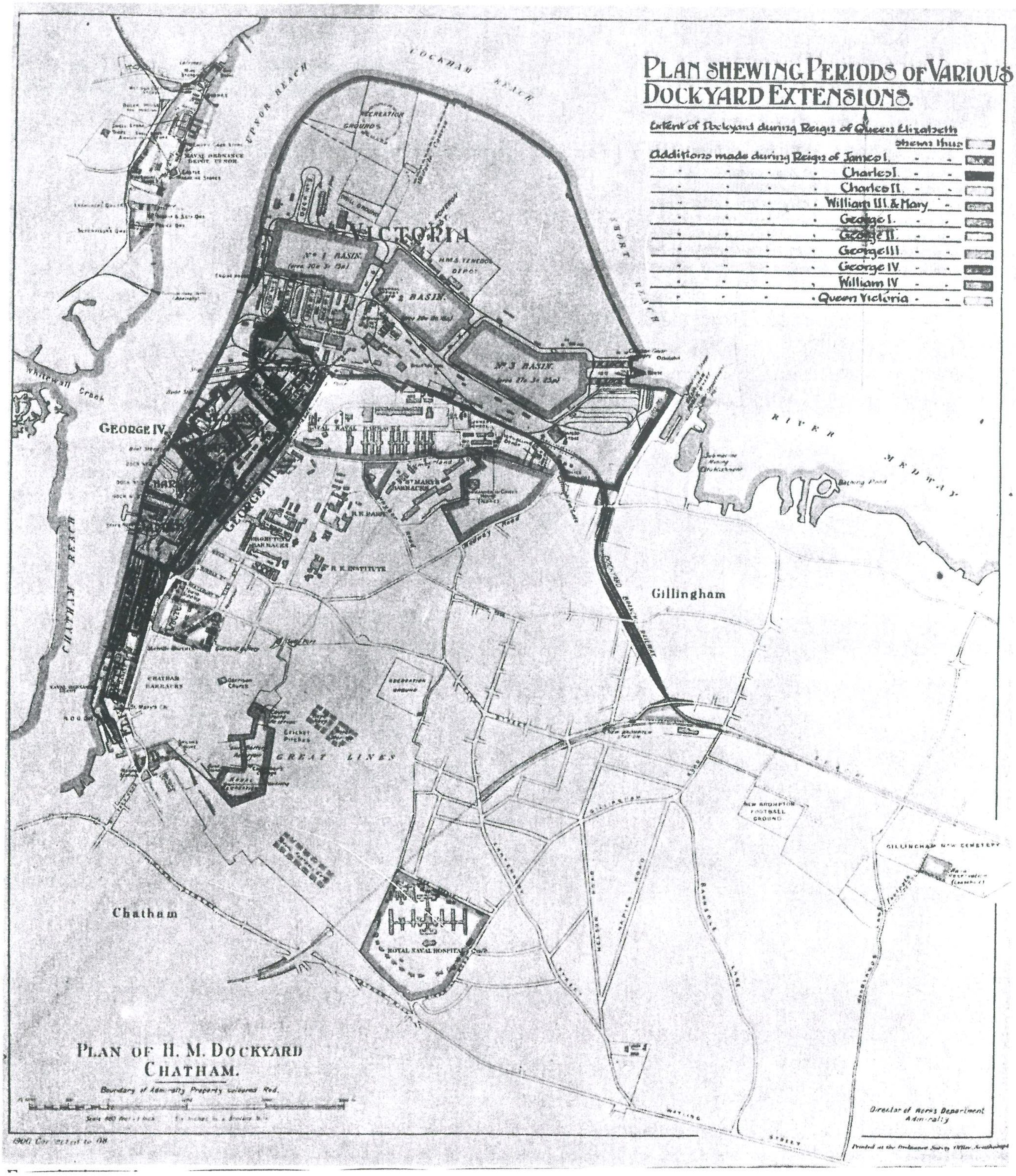




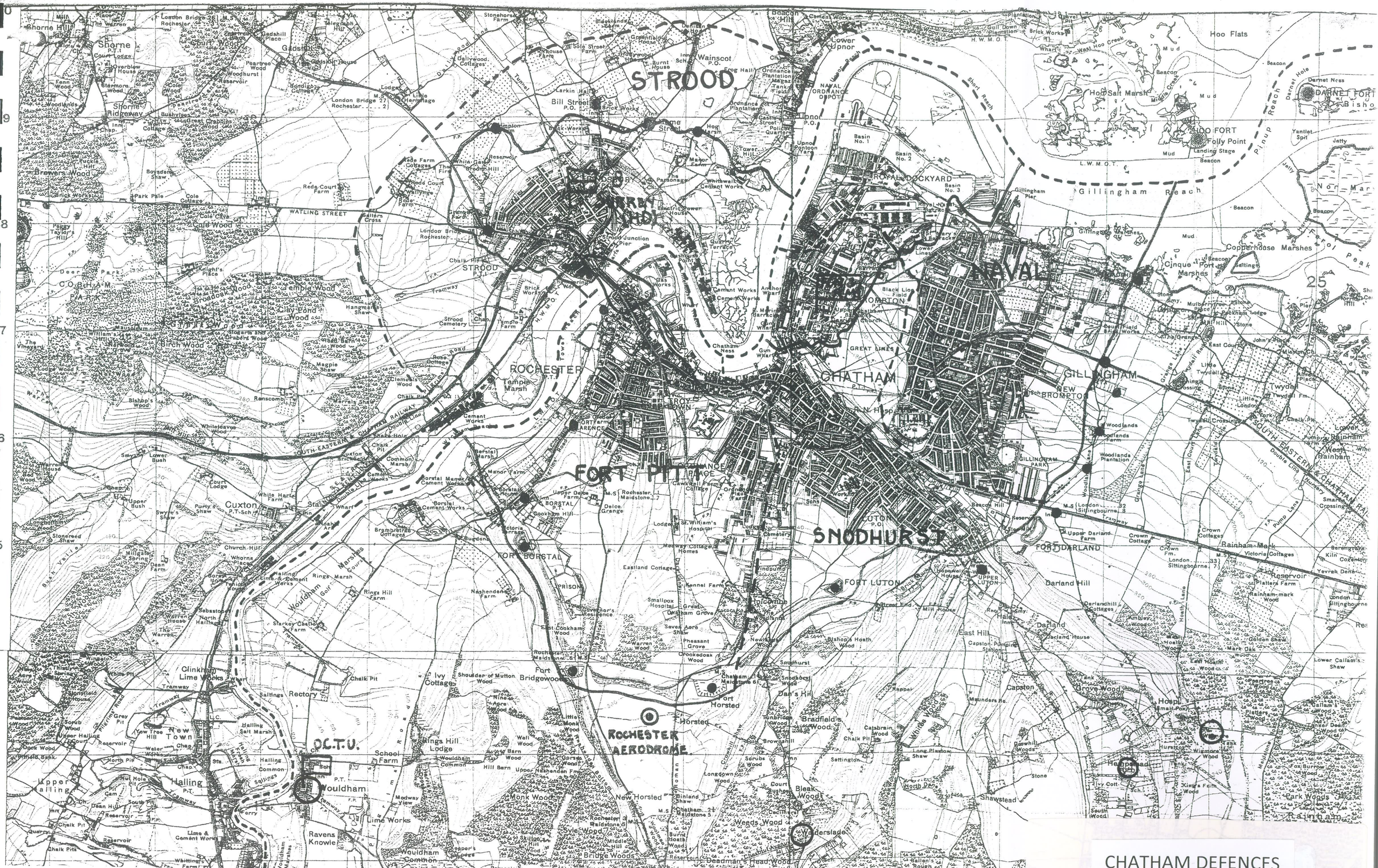




Isometric view of obstacle blocks


PLAN SHEWING PERIODS OF VARIOUS DOCKYARD EXTENSIONS.
Extent of Dockyard during Reign of Queen Elizabeth shewn thus
Additions made during Reign of James I.
Charles I.
Charles II.
William III. & Mary
George I.
George II.
George III.
George IV.
William IV.
Queen Victoria
VICTORIA
No. 1 BASIN
No. 3 BASIN.
GEORGE IV.
Gillingham
Chatham
GREAT LINES
ROYAL NAVAL HOSPITAL
RIVER MEDWAY
COCKHAM REACH
PLAN OF H. M. DOCKYARD CHATHAM.
Boundary of Admiralty Property coloured Red.
Director of Works Department Admiralty

1908



CHATHAM DEFENCES

1941