



ANDREW WARING
ASSOCIATES

**WW11 SITES IN THE
NEW FOREST NATIONAL PARK AUTHORITY
STRUCTURAL SURVEY REPORTS**

**JOB NO. 6706 – REPORTS
DATE SEPTEMBER 2013**

CONSULTING CIVIL AND STRUCTURAL ENGINEERS

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SITE 1A

IBSLEY COMMON – HUFF DUFF

SITE 1A

**OWNER: NATIONAL TRUST
IBSLEY COMMON – HUFF DUFF
GRID REF: SU 1757 1038**

Setting

The huff duff is sited on the top of Ibsley Common approximately 1 mile east of South Gorley in open land.

Inspection

The inspection was undertaken on Friday 5th July 2013. The inspection was purely visual; no excavation or opening up was undertaken.

Structural Form (Read with drawing 6706/S1)

The main structure comprises one octagonal brick enclosure truncated on one side to give access. The perimeter wall is of 1½ brick construction some 1.9m high. Within the perimeter wall there is a ground level construction comprising an octagonal perimeter concrete wall some 150mm above ground level, and a pair of parallel brickwork cross-walls 225mm above ground. Two holding down bolts are positioned at each corner of the octagonal plinth. (photo 1).

Arranged radially around the main structure are a series of concrete plinths. These plinths are some 10m away and sited on the corner and mid face lines of the octagon. These plinths remain in 11 locations and are some 12" square in plan, 24" long bedded into the ground; they do not have a common top level. (photo 2).

Structural Inspection

The perimeter walls of the main structure were inspected and found to be in good order with few defects. There are one or two spalled bricks and open joints. There is a very minor horizontal crack under the coping in some places.

On the right hand side of the entrance, a section of brick has been lost.

On the left hand side of the entrance, the wall capping is lost and the vertical edge is rather ragged (photos 3 & 4).

The ground level brickwork within the walls is in reasonable order. The octagonal concrete wall is haunched into place and appears reasonably sound although all the vegetation needs removal. The brick has been locally damaged with the loss of the top course in places. Each corner once had a pair of holding down bolts and these remain in some locations, are bent in several and are lost in others.

The concrete blocks forming the external radial plinths all appear sound. Most remain in-situ but one has been uprooted and, assuming there were originally 16 in total, 5 have now been lost, with 11 remaining in situ.

Recommendations

Minor repairs should be undertaken to the brickwork containing wall including rebuilding the small section lost by the entrance and the capping.

All the vegetation should be removed from within the perimeter wall as well as the large bush on one external face adjacent to the entrance.

Within the wall, the low level structure could be repaired with dislodged brick being replaced and reinstated.



Photo 1



Photo 2



Photo 3



Photo 4

13 1/2" BRICK PERIMETER
WALL - APPROX 7'6"
HIGH. ON EDGE COPING

CONC. UPSTAND WITH
CORNER BOLTS.
(5" x 9" H UPSTAND)

WALL COPING
LOST &
RAGGED EDGE

MISSING
TO 'X'

ISOLATED CONC. PIER
'MISSING TO 'X'

APPROX
10M.

300² IN PLAN
CONC. PIER SET
IN GROUND ALIGNED
EVERY CORNER &
MID SIDE (11 IN²)

CORNER
BOLTS

3C BRICK

3C BRICK

STEP

TIP OF WALL LOST
5'8" COURSES

PLAN ON HUFF-DUFF
1:50

Architect:

Client:

N.F.N.P.A

Job Title:

HUFF DUFF PLAN

Drawing Title:

WW II SITES
SITE 1A.

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- AUG 13		FOR REPORT		AW
Rev.	Date	Revisions		Chk.
Scale:	1:50	Checked: AW		
Date:	AUG 13.	Drawn by: AW		
Drg. No.		6706/51A		Rev.

SITE 1B

IBSLEY COMMON - BUNKER

SITE 1B

**OWNER: NATIONAL TRUST
IBSLEY COMMON – BUNKER
GRID REF: SU 1757 1038**

Setting

The bunker is sited on the top of Ibsley Common approximately 1 mile east of South Gorley in open land.

Inspection

The inspection was undertaken on Friday 5th July 2013. The inspection was purely visual; no excavation or opening up was undertaken.

Structural Form (Read with drawing 6706/S1B)

The primary surviving structure is a bunker. The bunker is formed of load bearing brickwork with an internal render finish. The roof slab is of concrete cast in-situ. Earth bunding surrounds the bunker and partially overtops the roof slab. (photo 1)

In close proximity to the bunker, there are the remains of a brick building some 3.2 x 6.4m in plan. All that remains is the ground slab and a few courses of brickwork to parts of the perimeter, and brick rubble. (photo 2)

A more modern concrete base slab some 5' square lies some 5m to the NW of the bunker.

Structural Inspection

The bunker is entered from the eastern side. Brick walls, 9" thick, enclose an entrance with steps down. This brickwork is in good order, although some bricks have been lost from the coping. (photo 3).

The bunker itself is also formed of brickwork perimeter walls which appear in good structural condition. The bunker walls are rendered; some of the render is crazed with small areas having detached. There is widespread surface algae. (photo 4)

The roof structure comprises a 6" reinforced in-situ slab with boarded finish to the soffit. There is a downstand boot lintel over the entry. All the concrete appears in sound order.

The bunker has been filled with brick rubble to a minimum level of around 2' which prevented inspection of the low level walls or slab.

The original adjacent building appears to have been of simple brickwork form with concrete ground slab. Most of the brickwork has been lost with only the lower few courses remaining in some areas. The concrete slab appears in reasonable order.

The concrete base to the NW is small and sound. No work is required.

Recommendations

The bunker should be emptied of debris to allow a final inspection.

A secure gate should be installed as a safety measure as there appear to be incomplete steps for access.

Minor brickwork repairs should be undertaken, particularly to the entrance area.

The adjacent building slab should be left. The low level brick walls can remain and could be potentially reinstated to show the original form.

Excess bricks and rubble should be removed from site.



Photo 1



Photo 2

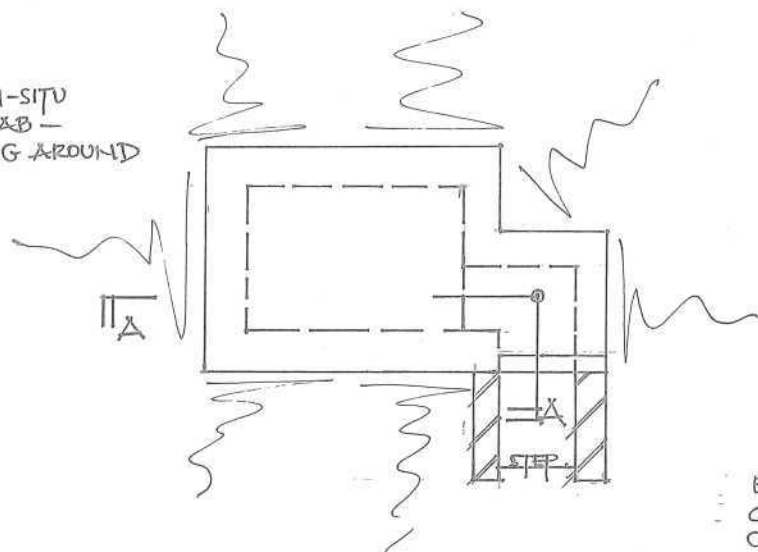


Photo 3



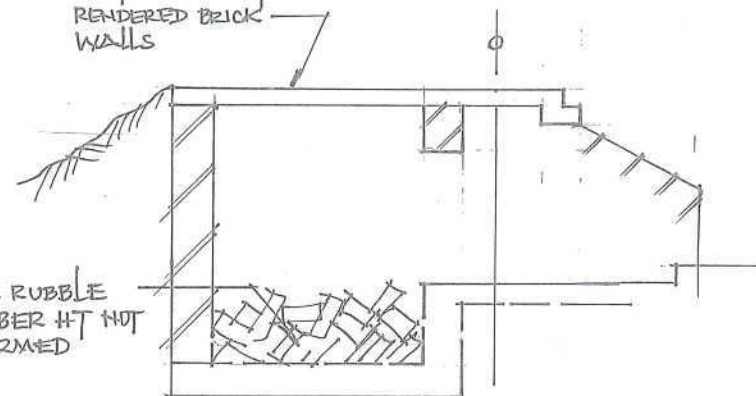
Photo 4

13½" WALLS & IN-SITU
CONCRETE ROOF SLAB -
EARTH BANKING AROUND

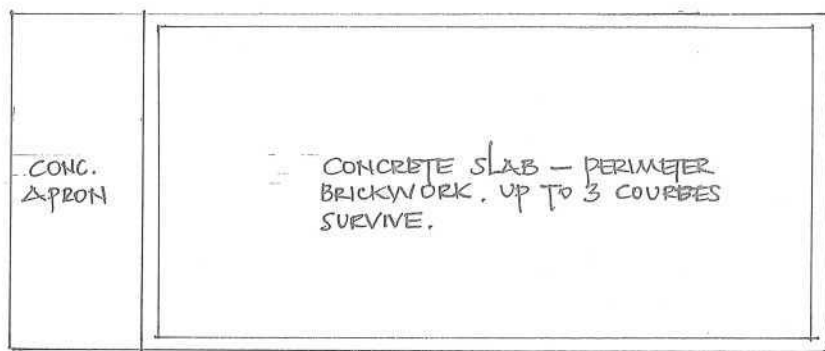


IN-SITU CONC
ROOF SLAB ONTO
RENDERED BRICK
WALLS

BRICK RUBBLE
CHAMBER HT NOT
CONFIRMED



SECTION A-A
1:50



PLAN ON BUNKER & ADJ. BUILDING
1:50

Architect:

Job Title:

BUNKER & BLDG PLAN

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WW II SITES
SITE 1 B.

Rev.	Date	Revisions	Chk.
1	AUG 13	FOR REPORT	
Scale:	1:50	Checked:	XW
Date:	AUG 13	Drawn by:	XW
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SITE 2

IBSLEY BATTLE HQ – NEWLANDS COPSE

SITE 2

OWNER: NATIONAL TRUST
IBSLEY BATTLE HQ : NEWLANDS COPSE
GRID REF: SU 1637 0885

Setting

The Battle HQ is located on a promontory in the midst of Newlands Copse and surrounded by trees.

Inspection

The inspection was undertaken on Friday 26th July 2013. The inspection was purely visual; no excavation nor opening up was undertaken.

The structure was inspected both externally and internally.

Structural Form (Read with drawings 6706/S2-1 and /S2-2)

The Battle HQ takes the form of an underground bunker with two above ground 'turrets'. There is also an entrance from the south via a pathway and steps down into the bunker. (photo 1). There is an escape hatch from the northern side of the complex. (photo 2).

The plan layout and section through the complex is approximately as indicated on the attached sketch drawings 6706/S2-1 and S2-2 and appended photographs.

The perimeter walls are generally formed of 1½ brick walls (350mm) though some internal walls are 1 brick (225mm)

The roof slab to the bunker appears to be of reinforced concrete some 350mm thick with a thin waterproof render surfacing. Internally, the bunker floor and steps are all of concrete form.

The two 'turrets' which project above ground are of more robust construction. The perimeter walls are of 2 brick construction (450mm) and the roof structures are again of reinforced concrete but some 16" thick (400mm). There is a thin waterproof render capping the concrete.

Both turrets have a vision slit beneath the roof cap. This slit extends to the full perimeter giving 360° vision on the northern turret but only approximately 50% on the southern one.

These vision slits are tapered in section measuring about 2½" deep externally and 8" internally. When constructed, there appears to have been some form of pressed steel flashing but much of this is now lost. The vision slit is almost continuous and this was achieved by casting the roof slab onto tapered steel I sections bedded onto the wall below.

Structural Inspection

External

Viewed externally, the two turrets are the visible elements along with a small section of slab to the east of each turret the northern one of which contains the escape hatch.

There is an entrance to the bunker from the south side with brick retaining walls to each side and then steps down to the bunker. The brickwork walls are in excellent order with no significant defects. The concrete steps run under a shaped lintel and underground to the main entry point.

The southern turret and exposed roof are of concrete with a thin render skim. This render has been lost in a number of areas. The vision slit shows vestiges of a metal flashing but its form and purpose are now unclear. (photos 3 and 4). The concrete shows no undue sign of distress (photo 5).

The northern turret is of the same construction as the southern, albeit that the vision slit is for the full perimeter. The concrete appears sound throughout although, as before, there is some loss of the render layer. (photo 6).

Removal of the shallow layer of ground between the turrets reveals the upper surface of the main bunker slab which is again protected by a thin layer of render. The small area exposed appears in good order (photo 7).

The escape hatch gives access to the bunker but the plywood cover needs replacement with a robust secure solution.

Internal

Access as gained via the main stair

There are a number of chambers within the bunker; all have brickwork walls and there is a concrete roof slab throughout. The floor is also of concrete form.

Inspection was hampered by the amount of paint and debris within the bunker. There are candles, old fires, paint cans and timber branches and logs throughout the bunker. Many walls, floors and some ceiling areas are covered in graffiti.

In the main, the walls and slabs appear in good order with no great sign of structural distress. The floor slab too, although a future further inspection is recommended when the areas are cleared.

Steps lead up to the southern turret which is only some half the width visible above ground. There is a vision slit on 3 sides (photo 8). The brickwork walls and concrete floors are all in good order. The upper roof slab is supported on brickwork on its north side and on tapered steel I sections elsewhere. These sections are corroded and there is some damage to the concrete cill on which they sit as well as to the section itself. The concrete capping slab appears in good order.

At the northern end, steps lead up to the escape hatch with a doorway into the northern turret. All the brickwork is in good order, as is the concrete floor slab.

The upper roof slab is again of reinforced concrete and in good order. It is supported on 12 tapered steel I beams, all of which are corroded (photo 9). The underside of these are fixed to the concrete wall capping and there are vertical cracks at each location (photo 10). The steel tapers are also corroded and in need of attention.

Discussion

The whole bunker needs clearing of debris and the main entrance and escape hatches should be secured against intruders.

Removal of debris would allow a more detailed inspection but it is unlikely that major defects would be discovered.

Brickwork is in excellent condition throughout and there is minimal repair required.

The floor slabs all appear sound.

The external walls all appear sound and robust. The external waterproofing details are unknown but there is no sign of undue water penetration. The bunker location on top of a hill, no doubt helps in this regard.

The main areas of concern relate to the vision slits on both turrets. The roof slabs are heavy and are supported on the tapered I sections which are corroding and causing some localised damage. These sections need further assessment and cleaning and protecting at best or replacing or augmenting at worst.

Externally, the complex is now surrounded by trees and it would be prudent to consider removal of trees that might have a future impact on the fabric; this would not be many trees.

The waterproofing to the bunker appears to be the thin render coat which is visible. This has been lost in some locations and it should be replaced to re-establish the integrity of the system.

Recommendations

Remove selected trees to lessen future impact on the fabric.

Clear out debris from the bunker and remove /repaint graffiti

Provide secure entry gate and escape hatch cover to prevent vandalism

Investigate further external waterproofing render and repair/reinstate

Investigate further condition of the tapered steel supports to the turret roof slabs; remediate or replace to ensure the integrity of the fabric.



Photo 1



Photo 2

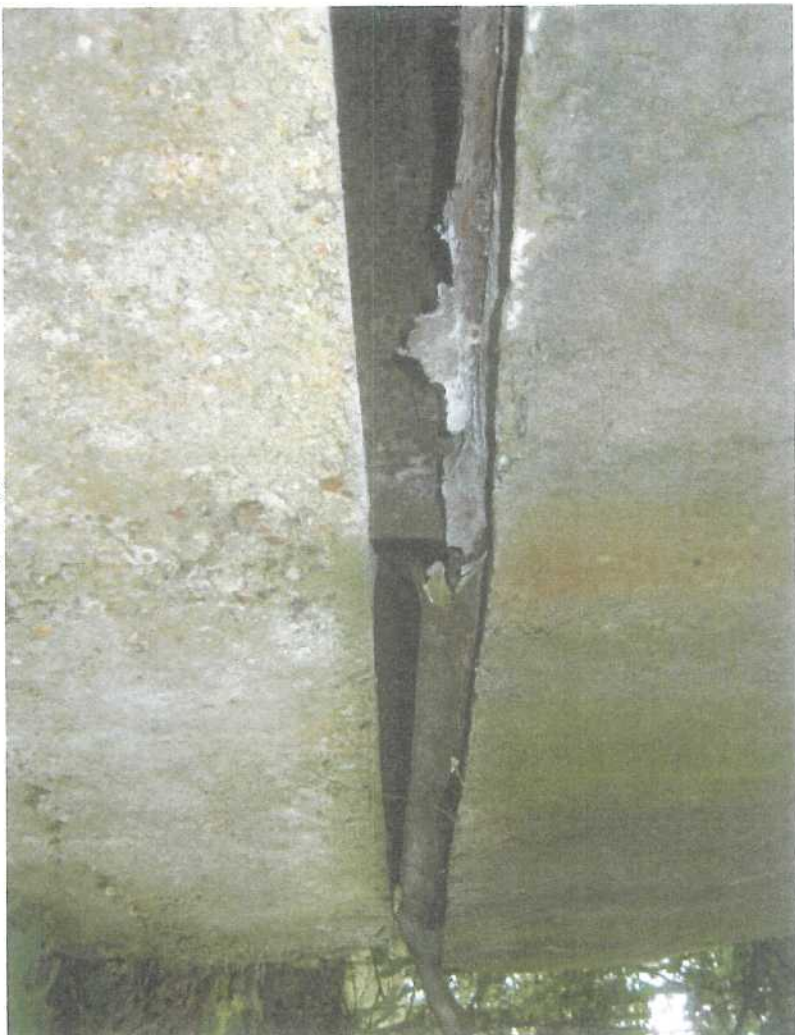


Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



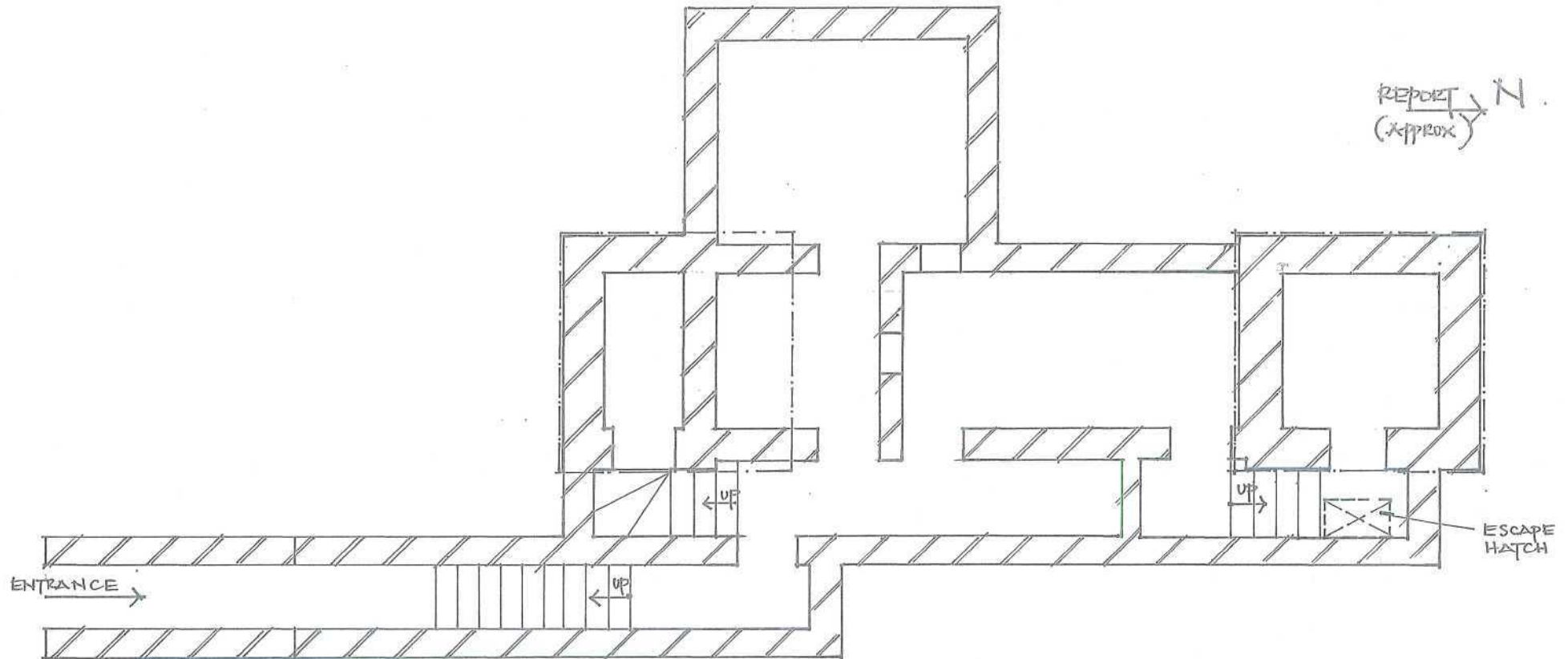
Photo 8



Photo 9



Photo 10



PLAN ON BUNKER
1:50

Architect:

Job Title:

PLAN OF BUNKER BELOW
GROUND.

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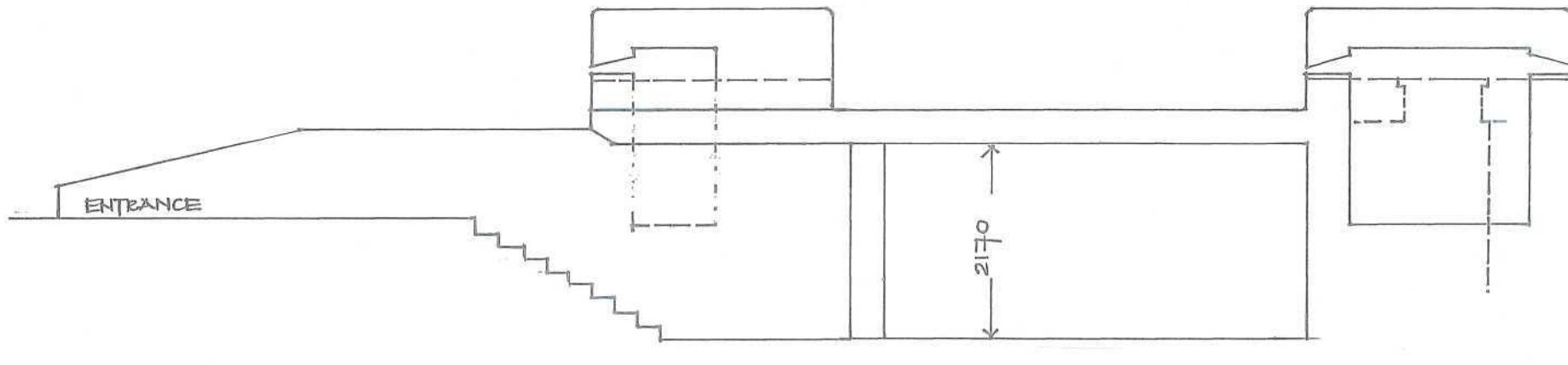
Client:

N.F.N.P.A.

Drawing Title:

WWII SITES
SITE 2

- AUG'13		FOR REPORT	AW
Rev.	Date	Revisions	Chk.
1:		Checked: AW	
Date:	AUG 13	Drawn by: AN	
Drg. No. 6706/S2-1		Rev.	



LONG^T. SECTION THROUGH BUNKER.
1:50

Architect:

Client:

Job Title:

Drawing Title:

BUNKER SECTION

WW II SITES
SITE 2

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Date:	AUG'13	Drawn by:	AW
Drg. No.	6706/S2-2	Rev.	

SITE 3

IBSLEY RIFLE BUTTS WALL

SITE 3

**OWNER: NATIONAL TRUST
IBSLEY RIFLE BUTTS WALL
GRID REF: SU 1669 088A**

Setting

The wall is located in open heathland. It is located just to the south and downhill of a gravel track.

Inspection

The inspection was undertaken on Friday 26th July 2013. The inspection was purely visual; no excavation or opening up was undertaken. The inspection was also constrained by the amount of vegetation and shrubs abutting the wall.

Structural Form

The surviving structure comprises a wall, some 15 metres long and 75" (1.9m) tall. (photo 1). On the south side of the wall the ground is banked at about 35° against the wall to a couple of courses below the coping. On the north side, the ground is at low level at the wall base but the land slopes uphill towards the gravel track.

The wall is some 18" (450mm) thick overall and is formed with brickwork facings to both sides of the wall and a concrete fill between (photo 2).

The foundation details of the wall are unknown.

Structural Inspection

Inspection was somewhat hampered by vegetation but it was possible to gain a good overview.

The wall appears to be constructed as two facing skins with a concrete fill between. The concrete is visible in one or two locations and appears reasonably sound, if a little on the boney side with a lack of fines.

Whether the concrete is reinforced in any way is not known but where exposed, there is no sign of metal or corrosion.

The concrete fills the brickwork to the top of the wall and there is no coping; there does not appear to have been a coping at any time.

The wall stands vertical over its entire length and does not lean or exhibit obvious deformations.

The brickwork facing appears generally sound and stable. There is some face spalling of brickwork. At the wall head, the upper courses have been lost in one or two locations exposing the concrete fill. In one location, the concrete has been damaged (photos 3 and 4).

Discussion

It is likely that the wall was formed as a grouted cavity construction with the brick skins forming the vertical shutters to the concrete, and the concrete being cast directly against the brick face.

The concrete appears reasonably sound albeit a bit lacking in fines where examined; but this is only possible in two places.

However, there is no doubt that the wall was well constructed as it still stands vertical despite retaining some 1.8 metres of bunding on one side.

The bricks are spalled in some places and some attention may be required.

At coping level, some bricks have been lost and these should be replaced. The main aim would be to prevent water penetrating the wall at its head which might accelerate frost damage to the brick.

The vegetation has been allowed to grow wild for many years and now requires cutting back on both the bank and in front of the wall.

Recommendations

Reset the brickwork at the wall head and ensure sound to prevent water ingress between concrete and brick facings.

Remove excessive vegetation from around the wall.

Replace isolated spalled bricks as required.



Photo 1



Photo 2



Photo 3



Photo 4

SITE 4

CHERRY ORCHARD - BLAST SHELTERS

SITE 4

**OWNER: NATIONAL TRUST
CHERRY ORCHARD
BLAST SHELTERS
GRID REF: SU 1597 0877**

Setting

The blast shelters are located in the woods to the north of Moyles Court School. The shelters are now surrounded by a mix of deciduous and coniferous trees (photos 1 and 2).

Inspection

The inspection was undertaken on Friday 26th July. The inspection was purely visual; no excavation or opening up was undertaken.

Structural Form (Read with drawing 6706/S4)

The surviving structure is of load bearing brickwork. The brickwork forms perimeter walls against which the external ground is banked up. There are two chambers each with a separate entrance on opposite sides of the shelter.

It is understood that these shelters were open topped with no roof.

The plan form of the structure is as indicated on sketch drawing 6706/S4 and a selection of record photographs are appended.

Structural Inspection

The brickwork walls were inspected in detail. The majority of walls are of 1½ thick brick form giving a wall width of 350mm or so; some internal division walls reduce to 1 brick thick as noted. The walls were well constructed and remain in generally good order with few defects (photo 3).

There are one or two very minor fractures in brick wall panels but none are significant.

The wall copings are damaged in some locations with a degree of spalling in evidence. There is also moss growth on many surfaces, particularly the coping due to the woodland setting (photo 4).

In some locations, the brick coping has been lost from the wall.

It was not possible to examine the original floor level as the building footprint has filled with leaves etc. over many years. It is envisaged that there will be a concrete floor.

Within the building footprint there are a number of self-seeded trees growing; these vary in species and maturity.

The surrounding banking extends to just short of the top of the perimeter walls and access corridors. There are now a number of trees growing in this banking.

Discussion

It appears that nearly all the original brickwork to the shelter survives and that it is in remarkably good condition. The walls, which fulfil a retaining function all appear sound and to be without major defect.

There are some brickwork repairs but these relate mainly to the copings and a few isolated cracks.

The main concerns relate to the trees which are now growing within and in close proximity to the shelter. If left unchecked these will, without, doubt, cause damage to the fabric. Those within the footprint should be cleared as well as external trees close to the walls.

The footprint of the shelter has filled with leaves etc. over the years and it would be good to clear these back to the original floor level to at least allow further inspection.

It is unclear whether the shelters had a roof and if so what form it took. There are no surviving elements and neither are there obvious fixings in the copings to locate / tie down a covering.

Recommendations

Remove all trees within the footprint and close by

Clear out the internal footprint

Undertake brickwork repairs particularly to copings and remove moss.



Photo 1



Photo 2



Photo 3



Photo 4

SITE 5

MOYLES COURT SCHOOL - BLAST SHELTER

SITE 5

OWNER: MOYLES COURT SCHOOL
BLAST SHELTER
GRID REF: SU 1619 0862

Setting

The blast shelter is located within the grounds of Moyles Court School adjacent to the road. The shelters are now surrounded by a mix of deciduous and coniferous trees.

Inspection

The inspection was undertaken on Friday 26th July. The inspection was purely visual; no excavation or opening up was undertaken.

Structural Form (Read with drawing 6706/S5)

The surviving structure is of load bearing brickwork. The brickwork forms perimeter walls against which the external ground is banked up. There are two chambers each with a separate entrance on opposite sides of the shelter (photos 1 and 2).

It is understood that these shelters were open topped with no roof.

The plan form of the structure is as indicated on sketch drawing 6706/S5 and a selection of record photographs are appended.

Structural Inspection

The brickwork walls were inspected in detail. The majority of walls are of 1½ thick brick form giving a wall width of 350mm or so; some internal division walls reduce to 1 brick thick as noted. The walls were well constructed and remain in generally good order with few defects (see photo 2).

There are one or two very minor fractures in brick wall panels but none are significant.

The wall copings are damaged in some locations with a degree of spalling in evidence. There is also moss growth on many surfaces, particularly the coping due to the woodland setting and the northern side is overgrown with vegetation (photo 3).

In some locations, the brick coping has been lost from the wall.

It was not possible to examine the original floor level as the building footprint has filled with leaves etc. over many years. It is envisaged that there will be a concrete floor.

Within the building footprint there are a number of self-seeded trees growing; these vary in species and maturity.

The surrounding banking extends to just short of the top of the perimeter walls and access corridors. There are now a number of trees growing in this banking (photo 4).

Discussion

It appears that nearly all the original brickwork to the shelter survives and that it is in remarkably good condition. The walls, which fulfil a retaining function, all appear sound and to be without major defect.

There are some brickwork repairs but these relate mainly to the copings and a few isolated cracks.

The main concerns relate to the trees which are now growing within and in close proximity to the shelter. If left unchecked these will, without doubt, cause damage to the fabric. Those within the footprint should be cleared as well as external trees close to the walls.

The footprint of the shelter has filled with leaves etc. over the years and it would be good to clear these back to the original floor level to at least allow further inspection.

It is unclear whether the shelters had a roof and if so what form it took. There are no surviving elements and neither are there obvious fixings in the copings to locate / tie down a covering.

Recommendations

Remove all trees within the footprint and close by as well as vegetation on the north side. Clear out the internal footprint.

Undertake brickwork repairs, particularly to copings.



Photo 1



Photo 2



Photo 3



Photo 4

SITE 6

HOLMSLEY BATTLE HQ BUNKER

SITE 6

**OWNER: FORESTRY COMMISSION
HOLMSLEY BATTLE HQ BUNKER
GRID REF: SZ 20716 99570**

Setting

The Battle HQ is situated in open moorland just to the north-west of Holmsley Camp.

Inspection (Read with drawing 6706/S6)

The inspection was undertaken on Friday 2nd August 2013. The inspection was purely visual; no excavation or opening up was undertaken.

Access to the bunker is via a narrow overgrown opening. The bunker has been filled and this and the overlying water made any sort of detailed internal inspection challenging.

Structural Form

The Battle HQ takes the form of an underground bunker constructed of perimeter load-bearing brickwork with a cast in-situ concrete roof slab some 18" (450mm) thick. The entrance chamber is accessed from the north side and the concrete roof is higher than the main chamber and visible above ground (photo 1). The external walls are of 13½" (350mm) brickwork.

The form of the structure is as indicated on 6706/S6 and a selection of record photographs are appended.

Structural Inspection

Above ground only the small area of slab above the entrance chamber is visible. This concrete is in reasonable order although a large section has been lost from one corner (photo 2).

There is a steel I section fixed to the slab top – purpose unknown (photo 2). This appears to remain from the cupola and main entrance structures which have been removed and partially infilled. It was also noted that there are some remains of ironwork on the external face of the chamber – again their purpose is unknown.

The main chamber roof slab is covered in grass but in one location, the corner of the slab has been exposed (SE corner).

The access chamber was entered and examined. The chamber is filled to less than a metre headroom. The perimeter brickwork is in good order and the roof capping slab sound. On the east wall, there are the remains of an iron ladder which appears to have accessed the roof hatch (photo 3).

There are two entry doorways to chambers off the access chamber. Each is at lower level and with a tapered in-situ lintel. The main chamber is filled and there is water at about 200mm below the access door lintel rendering inspection almost impossible (photo 4). Using torch and camera, it was possible to establish that the walls are of brick and the roof slab is of reinforced concrete with boarded soffit finish (photos 5 and 6). Beyond that, meaningful inspection was not possible.

Recommendations

First, a decision needs to be made on whether the bunker is to be emptied of debris and water. Only then will a meaningful inspection be possible.

The brickwork and concrete visible appears in reasonable order, notwithstanding the loss of part of the upper slab, and the original entrance fabric.

The surviving ironwork should be examined and treated to prevent further corrosion.

Vegetation should be removed from around the bunker and the entrance secured for safety reasons.



Photo 1



Photo 2



Photo 3



Photo 4

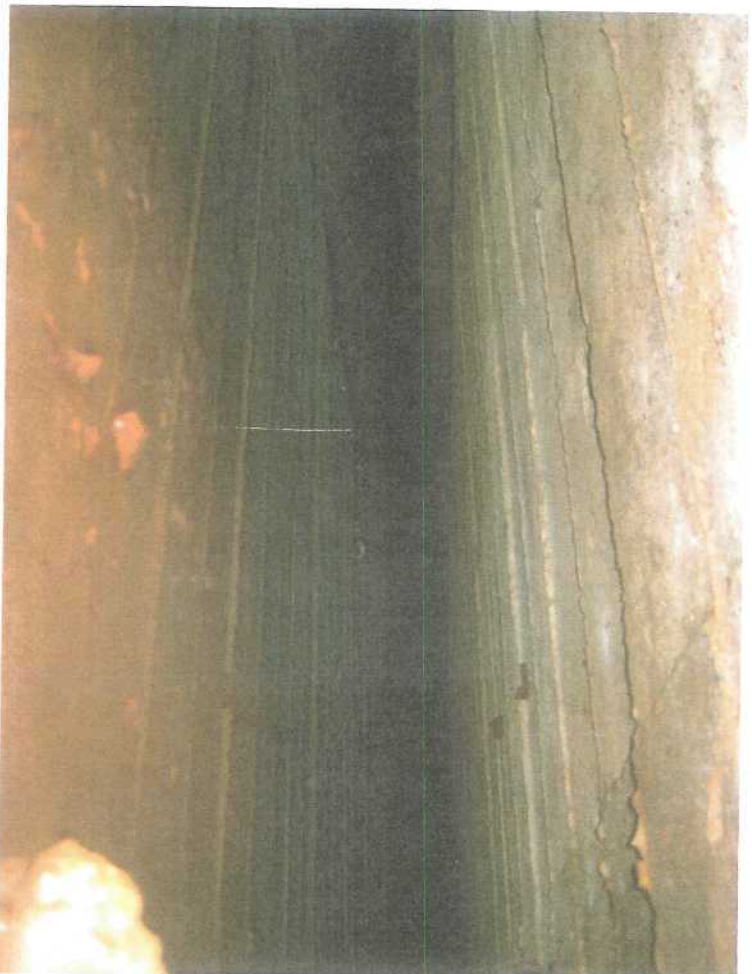


Photo 5

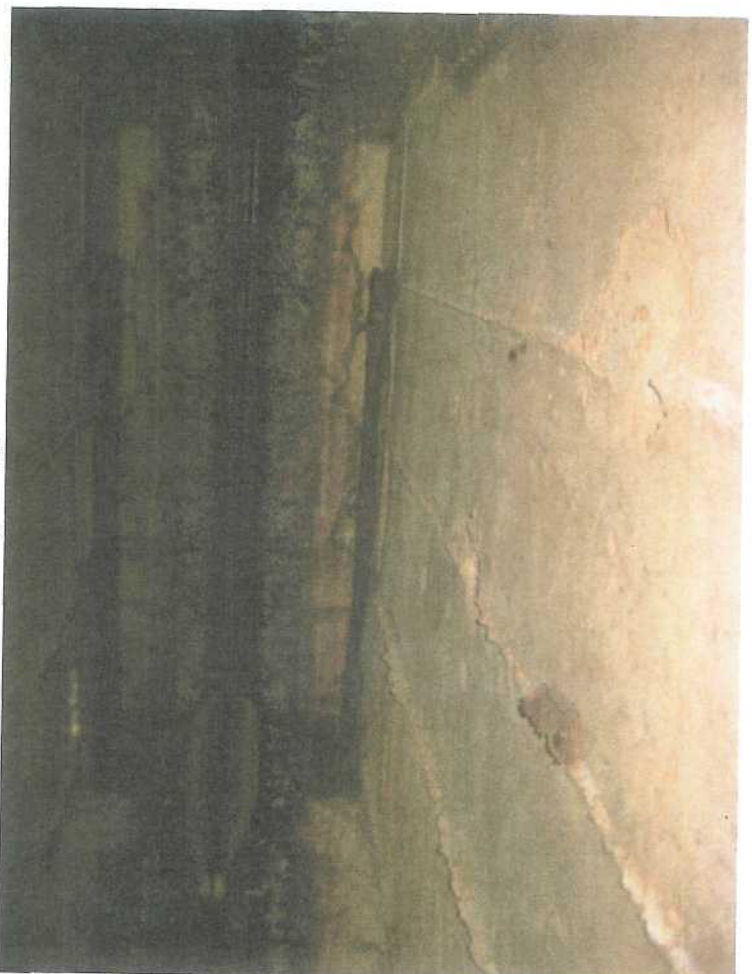


Photo 6

SITE 7

**HAWKHILL INCLOSURE -
OLD ACCOMMODATION BARRACKS**

SITE 7

**ACCESS: FORESTRY COMMISSION
HAWKHILL INCLOSURE – OLD ACCOMMODATION BARRACKS
GRID REF: SU 34500 01900**

Setting

The remains of these buildings are situated in the south-east corner of Hawkhill Inclosure. The buildings now lie in woodland.

Inspection

The inspection was undertaken on Friday 12th July 2013. The inspection was purely visual; no excavation or opening up was undertaken.

There are the remains of a large number of buildings on this site and no useful survey information. It was not possible to accurately locate all the buildings on a plan and the inspection is, therefore, broad brush in approach.

Structural Form

There appear to be two basic building types on the site.

The first type of building appears to be the remains of barrack blocks. Each is about 8m by 5m in plan and comprises a perimeter brick edge and concrete slab fill. There is a step in the end elevation of each block which marks the original entrance to the building. There are perhaps 12 such buildings in the woods, most of which are similar in plan size (photos 1 and 2).

The second building form is much smaller and appear to be the toilet blocks serving the main barrack buildings. There are perhaps 4 of these. These have brickwork perimeter with infill concrete slabs (photo 3).

There is one further building which appears smaller in plan, some 1.8m x 2.7m, with a one brick thick perimeter wall and no concrete floor (photo 4).

Structural Inspection

All that remain of these buildings are the floor slabs, steps and perimeter brickwork. Bracken ferns and grass, as well as trees grow all around the remaining fabric.

All the slabs are over-topped by leaves / now topsoil and support grass. The concrete surface appears reasonable but only limited inspection was possible.

Steps are of concrete and overgrown with moss and grass.

Perimeter brickwork is water stained but intact, though in not good order in many places.

Recommendations

The remains of these buildings have faded into the background of their woodland setting and are fully overgrown with plants and grass. The outlines are clearly visible.

It is difficult to see what would be gained by re-exposing all the brick and concrete but it could be done and repairs undertaken.



Photo 1



Photo 2



Photo 3



Photo 4

SITE 8

**HAWKHILL INCLOSURE - BOMB PREPARATION
AND STORAGE AREA**

SITE 8

OWNER: FORESTRY COMMISSION

HAWKHILL INCLOSURE – BOMB PREPARATION AND STORAGE AREA

GRID REF: SU 34981 01980

Setting

The remains of this facility are situated alongside the cycle track running to the west of Hawkhill Inclosure.

Inspection

The inspection was undertaken on Friday 30th August 2013. The inspection was purely visual: no excavation nor opening up were undertaken.

Structural Form

All that remains visible of the original facility is a wall structure which runs along the edge of the concrete cycle path. (photo 1)

The wall comprises a single length of brickwork, a total of 63.2m long with a short return at each end. The wall stands approximately 850mm above the track level. This wall is 1½ bricks thick (\approx 360mm) at lower level reducing to 1 brick thick (235mm) for the top 3No. courses. (Photo 2) Over part of the length of wall there is a projecting brick soldier course to cap the wall, whilst over the remainder there is an in-situ concrete capping detail with bull nose front edge. (Photo 3). The ground is generally banked against the rear face of the wall, though the wall is exposed by relatively recent excavation in one or two places.

Near the eastern edge of the wall there is a section of concrete slab, flat for the front 950mm or so with a slope downwards to the rear. (Photo 4)

The form of structure is as indicated on 6706/S8 and a selection of record photographs are appended.

Structural Inspection

It was possible to inspect the whole of the wall face running parallel with the cycle path. In all there are 63.2 linear metres of brickwork in one straight horizontal wall. The brickwork is generally in very good order and requires very little attention to the face work.

The wall is capped by alternating sections of in-situ concrete edge coping and one edge brick coping. Each of the concrete sections appears to be cast in one length of 9.15m; the longitudinal setting out along the wall length presumably relates to the operational process. Two of the three concrete sections remain in place on the wall head, but one has been pushed off the wall head and now lies in front of the wall on the edge of the cycle path. (Photo 5). These concrete elements are in remarkably good condition, even the displaced one. All contain minor cracking but nothing of great significance.

Where the wall is capped with a brick soldier coursing, the condition of brick is generally good although there are areas where the bricks are damaged and eroded.

In one or two places, there are minor fractures evident in the brickwork which is not surprising given its total length without movement joints. There are several horizontal fractures evident at just under coping level and these could be due to thermal expansion; there is no evidence of iron cramping in the wall. (Photos 6 & 7)

At the western end of the wall, the short brickwork return has been damaged with loss of the top of the wall – a section lies on the ground nearby. (Photo 8)

At the eastern end, there is a short length of concrete coping adjacent to which is a concrete slab some 7.3m long by 1.75m wide; this slab is 200mm thick with the front 950mm or so horizontal and the northern side slopes down. The slab appears to be in good order. There are a number of cut off steel pipes projecting vertically from the slab; these possibly mark removed handrails. There are also a number of iron rings fixed into the brickwork face just below the slab at centres averaging approximately 1 metre.

Generally speaking, there are few trees close enough to damage the wall; one large tree has been removed from near the eastern end in recent years.

Recommendations

The brickwork is in very good condition throughout with only a few repairs required and localised rebuilding where damage has occurred, as at the western end. The brick copings, where damaged or eroded, could be replaced or simply left as they stand with minor mortar repairs to ensure weathering of the wall.

The concrete slab and in-situ copings are generally sound and need no action, save perhaps filling of cracks. The section pushed off the wall should be re-bedded; to lift it back in one piece would be difficult and it may need to be carefully cut into more manageable lengths.



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



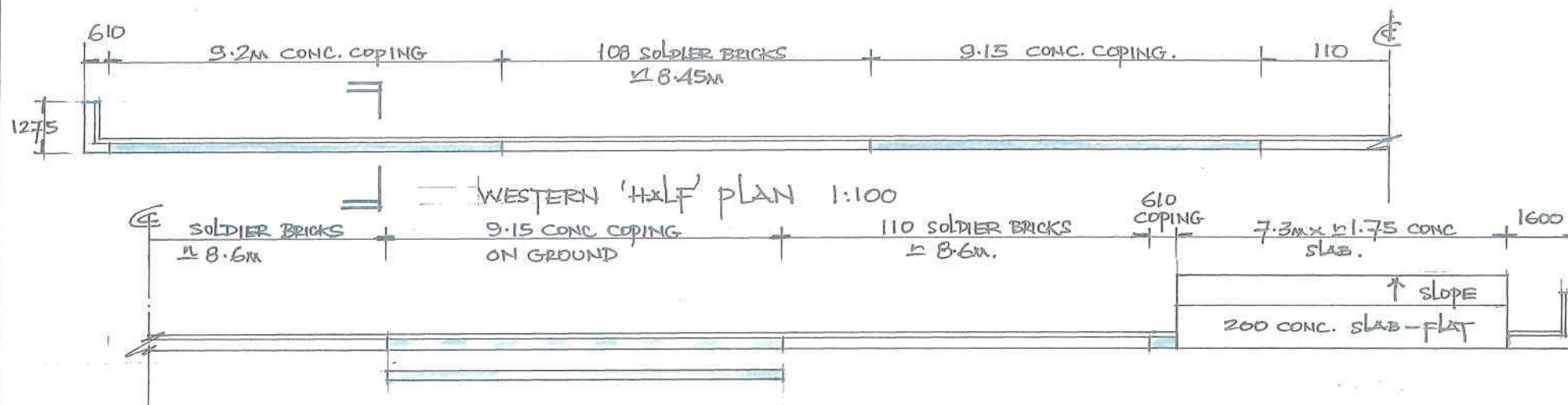
Photo 6



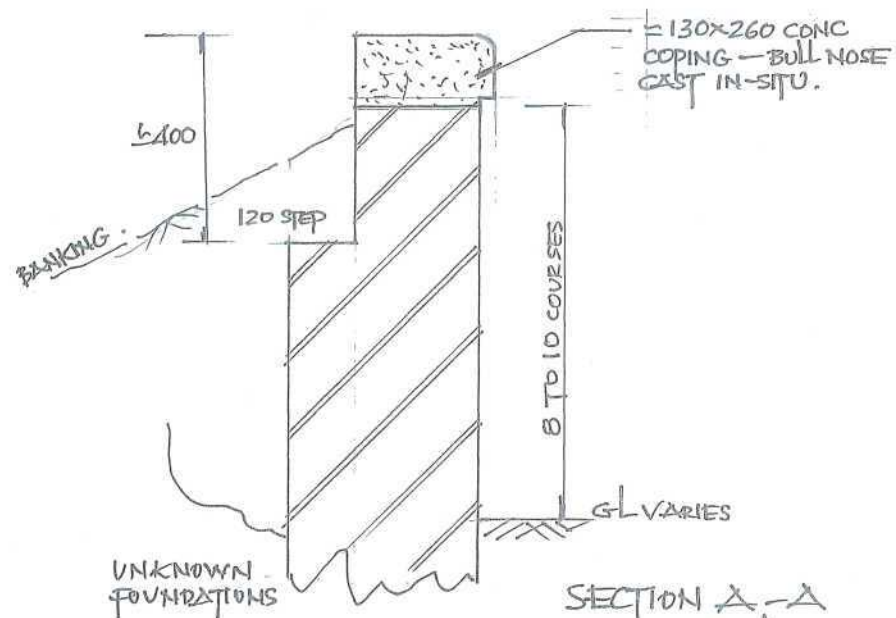
Photo 7



Photo 8



EASTERN 'HALF' PLAN 1:100

SECTION A-A
1:10 TYPICAL

Architect:

Job Title:

BOMB PREPARATION &
STORAGE AREA.

Client:

N.F.N.P.A.

Drawing Title:

WW II SITES
SITE B

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