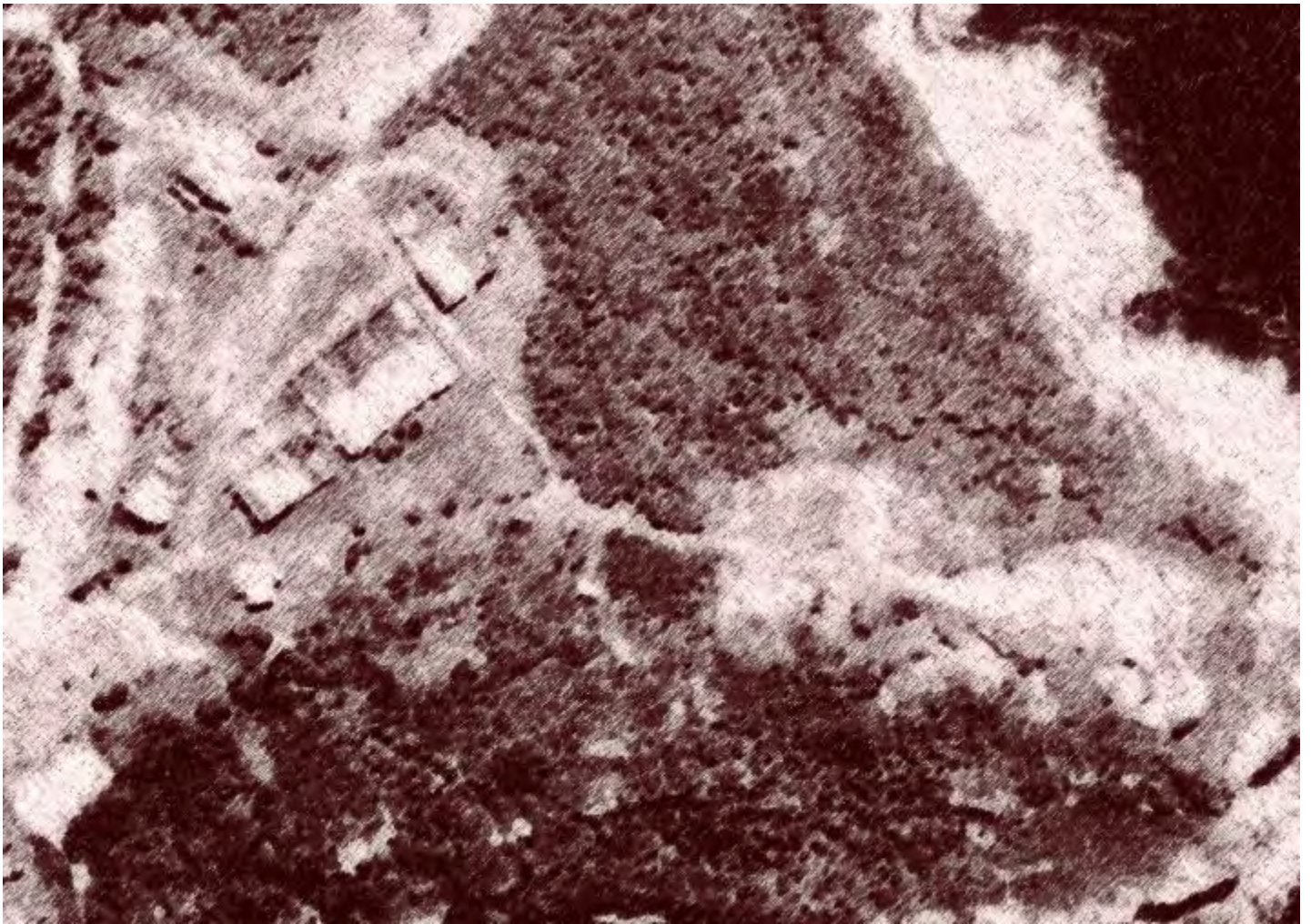


SYDNEY HARBOUR NATIONAL PARK
MIDDLE HEAD HISTORIC BUILDINGS



CONSERVATION MANAGEMENT PLAN

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ARCHITECTS HERITAGE CONSULTANTS
FINAL REPORT JANUARY 2003

1.0 Executive Summary

1.1 BACKGROUND

The historic buildings at Middle Head, Sydney Harbour National Park, were built to support the fortifications installed when the defence of Sydney Harbour became the responsibility of the NSW Colonial Government in the wake of the withdrawal of British troops from Australia in 1870.

The number of buildings on the site appears to have increased over time, usually in response to perceived threats of attack. Each addition, despite being deemed as 'temporary' seems to have remained, so that by 1945 the number of buildings on the site was virtually double the original. This was despite the fact that for many years between the critical events very little happened on the site other than a variety of artillery training programs. After World War II, when fixed defence fortifications were no longer viable in modern warfare, the site diminished. Many structures were demolished, and further demolition was undertaken by the military in 1979-80 just prior to the site being made part of Sydney Harbour National Park under the management of the NSW National Parks and Wildlife Service.

This plan was instigated as part of a number of documents to assess the various aspects of the site's significance. It will accompany the *Conservation Plan for the Fortifications at Middle Head and Georges Head*, an *Interpretation Plan for Middle Head and Georges Head*, a *Natural Heritage Conservation Plan*, and a Plan to examine the Aboriginal heritage of the area. These plans will ultimately be compiled into one comprehensive plan for the site. This plan, in particular, is also prepared in the context of the consolidation of National Parks staff offices at Middle Head.

The NSW National Parks and Wildlife Service has commissioned this Conservation Management Plan in accordance with the NSW Heritage Office guidelines in order to set out the management requirements and opportunities of the site.

1.2 SUMMARY STATEMENT OF SIGNIFICANCE

The historic buildings at Middle Head are significant as a well defined group of intact military structures that supported the nationally significant function of the Middle Head fortifications. The site layout demonstrates details about the strategy of the fortifications, their protection and surveillance, and the influence of the British military advisers on the colonial military forces. The historic building group largely derive from the very early period of the first colonial responsibility for the defence of Sydney, and their architectural expression and interrelationships demonstrate an early and distinct military hierarchy between officers and other ranks. The buildings range from self-confident Victorian Regency buildings to small vernacular structures, but largely share common materials and typology making them one of the more intact early barracks sites. There is also some level of rarity in the predominance of weatherboard cladding. The buildings and site features demonstrate the influence of important figures of the Victorian period such as James Barnet, Colonel de Wolski, and the British military advisers who shaped so much of Sydney's early defence patterns.

As an early and largely undisturbed site that once contained a large number of structures, the site has a high degree of archaeological potential. The site is an important place for its role in military training, its demonstration of early military accommodation, its ongoing connection with the resumed and undeveloped headland, and as a place associated with important military events, most importantly the Second World War. It has strong associations with a large group of people who trained on the site, is an icon for those who

have associations with the defence force, is related to the role of women in the forces, and has value as a recreational and educational resource for the local community.

1.3 POLICY SUMMARY

This plan has assessed the historic buildings of the barracks area as a place of high significance and recommends actions to recover the significance of the site as an important historic military establishment. Important site issues include the encroachment of vegetation that makes the original use difficult to comprehend, clearing of weeds, management of drainage, site access and parking issues, and most importantly the management issues related to the numerous archaeological sites throughout the barracks area. The site policies recommend that any new structures and service elements should be located outside the sensitive areas of the site.

This plan assesses the potential for compatible uses as recommended by the *NPWS Sydney Harbour National Park Plan of Management*, those of promotion, interpretation, and recreation. The change of use is the element that dominates the conservation of the buildings and the datasheets set out guidelines for assessing the historical use and significance of each structure, repairing and conserving fabric, assessing the appropriateness of current and proposed uses, and setting out works programmes necessary to accommodate those uses.

The following table is a summary of the policies on compatible use for the main structures on the site. Discussions supporting these recommendations can be found in the datasheets.

Compatible Use	Stores/ Utility	Single Residence	Double Residence	Dormitory Residence	NPWS Office	Training/ Day conf.	Interp Centre
MH26	- NC	- ACC	- NC	HIS ACC	CUR ACC	- ACC	- ACC
MH29	- NC	HIS ACC	CUR POSS	HIS ACC	- ACC	- ACC	- ACC
MH30	- NC	HIS ACC	- NC	HIS NC	- ACC	- NC	- NC
MH31	- NC	CUR ACC	- NC	- POSS	- ACC	HIS ACC	- ACC
MH32	CUR ACC	- NC	- NC	- NC	- ACC	- NC	- ACC
MH34	CUR ACC	- NC	- NC	- NC	- NC	- NC	- NC
History				Compatibility			
- – not related				ACC – acceptable use			
HIS – historic use				NC – not compatible			
CUR – current use				POSS – possible use with adaptation			

The interpretation potential of the site is very high and this plan attempts throughout to raise the awareness of this potential, both in a formal sense through public access, tours and walking tracks, but also in the ability of the fabric and the site to communicate elements of the experience and history of the military occupation of the site. The barracks area is essential in understanding the nature of the fortifications as the two are intrinsically linked.

The policies conclude with an outline recommendation of management requirements for the historic buildings including site management issues, site training, the high priority requirement for the management and archiving of records, and the co-ordination of the plans for the site.

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2.0 Introduction

2.1 REPORT OBJECTIVES

This is the final draft of a *Conservation Management Plan* for the Historic Buildings at Middle Head, Sydney Harbour National Park for endorsement by the NSW National Parks and Wildlife Service as part of a process of public consultation, NPWS endorsement and submission to the NSW Heritage Office for endorsement.

This report provides the physical and documentary analysis of the portion of the site that includes the historic buildings, analyses its history and the built fabric, makes an assessment of the buildings' significance, identifies constraints on the buildings, and sets policies for the management of the buildings.

Whilst concentrating on the buildings and their immediate surrounds, the plan also addresses a broad area of the site surrounding the buildings that includes a number of sites of historic buildings, landscape features, roadways and drainage features, as well as the fortification boundary wall and moat.

The buildings are included in the site listing on the State Heritage Register, and as such the NSW Heritage Council must endorse this Conservation Management Plan before any works outside the standard exemptions are commenced.

2.2 REPORT STRUCTURE

Main Document

This plan addresses the site at two very different levels of detail. The main body of the text, structured as a NSWHP Conservation Management Plan, addresses the general issues of the study site (as defined in 2.3 below). Thus the history, description, significance assessment, constraints and policy address the site as a whole.

Building Datasheets

The five buildings and one outbuilding that form the focus of this study have been addressed in more detail in a series of datasheets (located at the end of Chapter 4). The purpose of this is to have a document specifically targeted at the building itself to guide all works on the ground and to be more useful to those people who work with and in the buildings themselves. The datasheets do not replicate the main document, and are dependent upon it to some extent for the broad site context, but they attempt to distil the important elements about the building for immediate reference and comparison as a stand alone document.

The datasheets investigate similar ideas to the CMP as a whole, but are arranged differently.

- The location drawing, current and historical photographs, and current and historical building plans are set out first so that the visual presentations inform the descriptions that follow.
- A detailed description follows, where possible noting the features of the building that contribute to the significance. Each element's condition is also noted as a basis for the recommended works sections.
- A short history of the structure, the relevant state themes, a discussion on the date of the building (if necessary) and a description of any fabric changes set the current

building in its historical context and explain how the building came to be in its present condition.

- A short section on the significance of the building is included. This is mainly to show how the building contributes to the significance of the site as a whole, as in practice the significance of elements are difficult to separate from the whole.
- The most important section, the summary policy section assesses potential uses for the building, the important fabric elements of the building, possible adaptation works and the importance of the immediate curtilage of the building. The structure of the policy section is not prescriptive, but is intended to argue the benefits of any change from the significance of the building.
- A section on the BCA is included as this is the governing regulation for compatible use and building works.
- A staged maintenance assessment that includes urgent and medium term repairs, possible interpretative works, and cyclical maintenance then summarises the datasheet's recommendations.

2.3 THE SITE

The site is a portion of the Sydney Harbour National Park at Middle Head covered by Lot 1 of DP604478, a title description that covers a large area of the headland. For relationship to the headland see Fig 2.1.

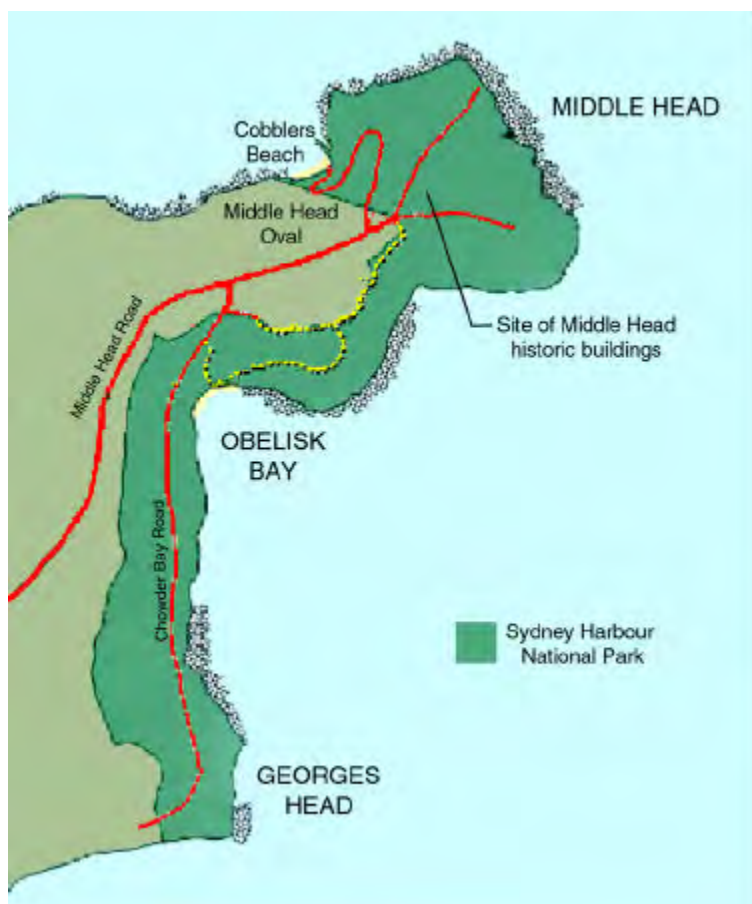


Fig 2.1 Location Plan Showing National Park Area At Middle Head – SOURCE: NPWS WEBSITE (www.npws.nsw.gov.au/parks/metro/harbour/shmiddlehead.html) as modified PAUL DAVIES PTY LTD 2002

The study site is best described as all that area within the boundary of the two former moats on the site, with the area of the lower barracks and the upper tennis court included. Fig 2.2 below indicates the study zone.

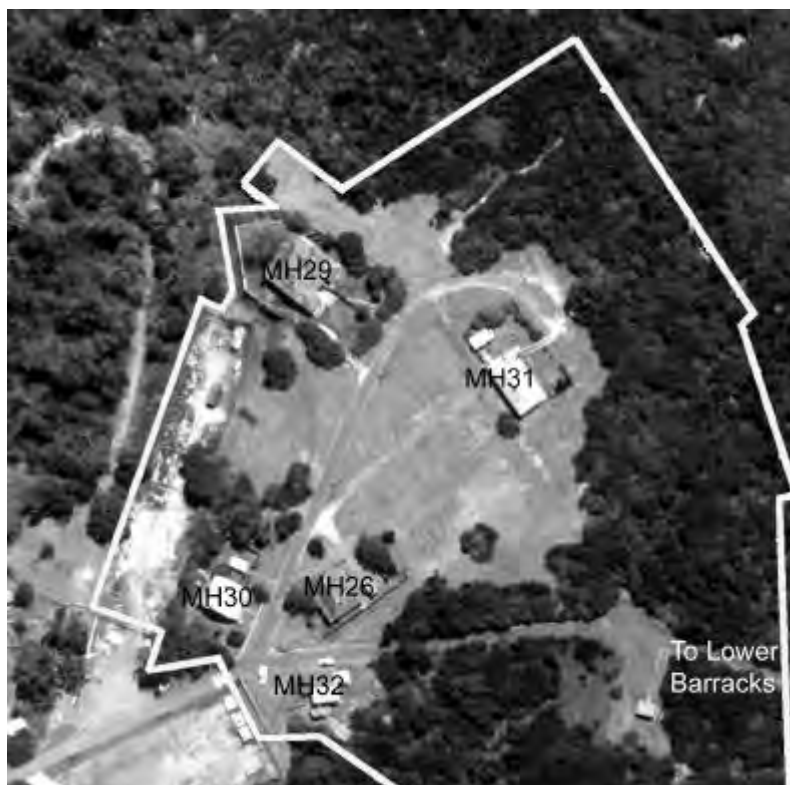


Fig 2.2 Approximate study area. The zone is largely determined by the moat and defensive wall boundary but also includes the tennis court area, the area of fill adjacent MH29 and the area of the lower barracks (not shown above) – AERIAL PHOTO – THE OFFICE OF THE SYDNEY HARBOUR MANAGER (www.bearings.nsw.gov.au - SPLASH website)

The study site includes five main remnant structures from the military barracks occupation of the site. These buildings are the focus of this plan and include:

1. MH26 Former Barracks 1
2. MH29 Former Officers Quarters
3. MH30 Former Sergeant Major's Quarters
4. MH31 Former Soldier's Institute
5. MH32 Former Guardhouse

The study site includes numerous outbuildings including; MH34 Coal Store, the shed adjacent MH32, the two outbuildings associated with MH30, the shed adjacent MH31, and the various carport structures on the site.

The study site includes a great number of former building sites, now demolished. Many of these sites have remnants of their footings and potentially have great archaeological value. The main sites addressed in this plan include:

1. MH27 Former Barracks 2
2. MH28 Former Lower Barracks and outbuildings
3. MH29 Demolished kitchen wing

Other buildings are noted on the plans where the information is available. Areas of building activity include:

1. A series of demolished buildings outside the moat on Middle Head Rd
2. A temporary and fairly short lived structure (No. 532) adjacent MH32

3. A large number of temporary accommodation buildings around the lower barracks (MH28)
4. Various demolished buildings on the area between MH29 and MH30, including store sheds and a stables building
5. A number of demolished buildings on the road to the inner fortifications beyond MH29, possibly including the oldest building in the site's history, the School of Gunnery

The other important features of the study site include the defensive wall and moat structures, the early military roads, and the early drainage works, some signalling works and towers and the general fencing of areas on the site.

The landscaping on the site is predominantly the regenerated areas of natural bushland, although there have been numerous weed encroachments identified by Gojak. There appear to be some minor areas of formal planting associated with the use of buildings as married quarters, but apart from the landscaping associated with MH29 these have not been supported since the withdrawal of the military.

2.4 METHODOLOGY

This study follows the guidelines of the *NSW Heritage Manual* and addresses significance under the *NSW Heritage Criteria 1999*. The plan follows the principles and methodology of the *Australia ICOMOS Burra Charter 1999* (attached as Appendix A) and is in accordance with the *Guidelines to the Burra Charter 1988*, and the *ICOMOS Draft Cultural Tourism Charter*.

This plan is a supporting document to the *Draft Middle & Georges Heads Fortification Conservation Plan 2001* (Referred to as Gojak) as the Barracks buildings are closely related to, and derive much of their significance from the fortification works. The present plan outlines the contribution the buildings make to the site's significance, but this is only one aspect of the site as a whole. The detailed assessment of the buildings has allowed some review of the assessments in the Gojak Plan.

2.5 LIMITATIONS

This Conservation Management Plan is limited by the brief to focus on the remnant historic buildings on the Middle Head section of the Sydney Harbour National Park (Fig 2.2). Due to the preparation of accompanying documents (see 1.1 - Background) this plan's scope does not include the fortifications, or areas of Aboriginal significance, and only provides guidelines for landscape management and an interpretation outline for a limited area.

In many ways the *Draft Middle & Georges Heads Fortification Conservation Plan 2001* is a parent document to this plan, and as such the history is constructed using the phases assessed in that document.

In several cases the documentary record for the buildings is incomplete or completely missing, and this plan has by necessity had to depend more fully on fabric analysis than would normally be the case. The military has not held the site for over twenty years and the records have since been spread over many sources. A great deal of material has been archived at the National Australian Archive and distributed over different storage sites, including the Australian War Memorial in Canberra, the NAA storage facility at Chester Hill, Sydney, and the Defence Infrastructure Division, previously the Defence Estate Organisation, Sydney. There are also original plans held in Victoria Barracks, perhaps other plans held in the NAA Victoria, and some documentation in the NSW State Archive.

The NAA files appear to be the most extensive, although some files relating to works on the buildings and conversions lack the accompanying building plans, making firm identification of the buildings in question difficult. The other confusing aspect of the research has been the use of various numbering systems and descriptions that only refer to building names that may change over time.

The project timeframe has not permitted the level of research into all available sources that might unravel the often conflicting information. In addition, some of the requested files require permission from the Department of Finance and Administration to access the material, which was not possible to obtain in the time for submission. This has meant that some of the history and assessments are based to some extent on conjecture. In all cases the available information is outlined, compared with the evidence from the fabric analysis, and a most likely scenario is presented. It is possible that further and more detailed research may be able to locate information that would lead to more definitive dates for the buildings.

We concur with Gojak that all references to the site must employ the 'MH' numbering system adopted in 1985 by Gojak and Wilson to avoid ongoing confusion. Where possible, all known building numbers have been included to make cross-referencing on site plans easier.

2.6 AUTHORSHIP

Paul Davies *MBA Env BArch ARAIA* (Paul Davies Pty Ltd) – Director contributed to the site and fabric assessment, the assessment of significance, the constraints and policy sections, as well as editing the main document and datasheets for submission.

James Nicholson *BArch* (Paul Davies Pty Ltd) – Senior Architect contributed to the site and fabric assessment, the assessment of significance, the constraints and policy sections and the datasheets.

Linda Raymond *BSc(Arch) Grad Dip Arts Management* (Paul Davies Pty Ltd) – Interpretation Specialist contributed to the documentary evidence, thematic history, and the assessment of significance sections.

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2.7 ACKNOWLEDGEMENTS

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- National Archive of Australia
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- Staff at the Australian War Memorial, Mitchell Library and the Harbour Trust
- Staff at Fort Queenscliff, Victoria

3.0 Chronology of buildings at Middle Head

3.1 INTRODUCTION

This history is constructed using the phases created by Denis Gojak in his Conservation Management Plan for the gun emplacements of Middle Head and Georges Heights, NPWS 2001. It does not address pre-contact Aboriginal history as this is outside the terms of the project brief.

The history is presented thematically, using the thematic framework adopted by the Australian Heritage Commission and the NSW Heritage Office. The relevant state and national themes are presented below.

Table 3.1.1 State and national themes

State	National
1 Land tenure	
9 Environment	3.11.4 Clearing vegetation 3.14.1 Building to suit Australian conditions 3.14.2 using Australian materials in construction
13 Transport	
14 Communication	
19 Technology	
21 Government and administration	7.1 Governing Australia as a province of the British Empire 7.4 Federating Australia 4.3 Developing institutions
23 Defence	7.7.1: Providing for the common defence 7.7.2: Preparing to face invasion
Housing	3.22 Lodging people 8.10.4: Designing and building fine buildings 8.12: Living in and around Australian homes 9.3.1: Establishing partnerships 9.3.2: Bringing up children
32 Training	6.3 Training people for the workplace
34 Events	

3.2 THEMATIC SITE HISTORY

The group of remaining buildings and the surrounding site comprising the Middle Head Barracks group illustrate a number of important national themes and sub-themes in Australian heritage. Their function, their layout and the actual building fabric are the departure point for this discussion.

It is clear that several aspects of the site persistently recurred over time. The most significant issues to emerge are:

- the conversion of the buildings from their original design, usually barracks or officers' quarters into married quarters
- the relative scales of fitout and detailing of quarters in relation to Army hierarchy
- the overall lack of maintenance on the buildings due to restrictions on funds
- the spatial relationships of the buildings and the demarcation of property

3.2.1 1801-1853 The first military presence and Aboriginal farming

The site appears always to have been used as a defence site, apart from a not well-documented period when Governor Macquarie established the site as a farm for use by local Aboriginal groups. The exact location of the farming area is not known. A map dated 1828 marks the whole headland as 'King Bungaree's Farm' (AO Map 4752, M10 in Wilson, 1985), although the topography of the Barracks site with its exposed rock outcrops and thin layer of topsoil does not suggest that the farm was located so far out on the headland, but probably further back where vegetation is heavier and presumably there is better and more plentiful soil.

The other early uses of the site are also not particularly well-documented. There is also little evidence of this period extant onsite despite some archaeological investigation. What evidence remains is well-discussed by *Gojak 2001*.

3.2.2 1853-1870 Crimean War activity followed by a hiatus

The earliest site development took place during the time of the Crimean War 1853-1856, which involved primarily Britain and Russia, but also France and Turkey. Russia held bases in the northwest Pacific, so the threat of aggression was felt to be all too real, even if Australia was remote from the more active battlefields.

Britain authorised construction of batteries at South and Middle Heads. Construction of a battery at Outer Middle Head was begun late in 1854, but halted six months later by Governor Denison (Doak 1988,19), who felt that protection of Sydney Cove itself was more useful and that the Middle Head development was complicated by 'the difficulty of manning such extensive and distant works' (McNicoll 1977,18). There appears to be no material evidence of the portable iron accommodation buildings, which were erected in less than two weeks by working parties from the infantry garrison under the direction of Colonel Barney (*ibid*, 18). *Gojak* notes that the buildings were subsequently removed.

It is likely that extensive site vegetation clearance began about this time, as a precursor to the construction activities, although it is also likely that the much earlier farming activities would also have impacted on at least some of the natural vegetation of the site.

British regiments finally withdrew from the colonies in 1870. While guns and ammunition were left behind for use by the local forces (Doak, 16), the withdrawal of British expertise and experience was a major factor in the subsequent development of Middle Head, which for many years was to operate as an artillery training camp. Under this impetus, the colonial armies were forced to establish their own facilities, although it has been noted that NSW lagged behind the other colonies (*ibid*, 20).

Following the British withdrawal, a Defence Commission was established by the NSW Government to review the state's defences, of which James Barnet as Colonial Architect was a member. *Gojak* indicates that the Commission's first progress report was the immediate catalyst for the commencement of the Middle Head works, which included a barracks for the garrison and a military road connecting the site to a settlement at St Leonards. The design for the works came from the office of the Colonial Architect. (Refer to 5.1.1 for a discussion of Barnet's involvement in the barracks area structures).

3.2.3 1871-1882 Sydney stands alone

The main period of development begins in 1871, when fortification of the site began in earnest.

Along with the need for NSW to develop its own self-defence capabilities, a further fillip to the Middle Head expansion was the formation in 1872 the Engineers Corps of NSW,

which was subsequently to facilitate much of the military construction of NSW. Many of the later plans for Middle Head originated in the Chief Engineer's office.

Gojak suggests that onsite accommodation was only commenced in 1876, some five years after the work on the gun emplacements started. While this seems a remarkable time lag in efforts to house the workers, it must be borne in mind that the construction of **the military road** occupied 180 men (*Town and Country Journal* 18 Feb 1871,204), while the extensive excavations for the gun emplacements would also have required a lot of manpower, which perhaps could not have been spared for mere housing when tents or iron portables were equally satisfactory.

Gojak also notes that the chronology of the buildings has not been clarified to date, citing a lack of accurate maps and ambiguous terminology used to describe the buildings as the causes. It must be noted that a lack of resources to support thorough research of primary sources has prevented an accurate dating of the buildings on the site. What follows is an estimate based on physical evidence and a careful analysis of the available, and sometimes conflicting primary documents.

It seems logical that the first permanent accommodation building on site would have been a barracks building: all evidence points to **MH26/Barracks No.1** and its outbuilding **MH34**, tentatively described as a Coal Store. (Note that there has been some confusion regarding the function of this outbuilding in relation to the name Cool Store listed in the inventory attached to the committee report on *State Properties Transferred to the Commonwealth, 1903* (Wilson, 4.47). A site plan dated c1905 (NAA FA 160 T40) identifies this building as a Coal Store, which seems more probable for its location and configuration). The lightweight weatherboard barracks building with its large windows and verandahs front and back overlooks the main road into the site and westwards across the site to Georges Head, in conjunction with the Guardhouse immediately opposite.

The arrival in 1877 of General Sir W F D Jervis RE (Royal Engineers) (subsequently Governor of South Australia) and his assistant Lieutenant-Colonel Peter Scratchley, military advisers to the colonies, seems to have prompted more sustained building activities at Middle Head. The two experts assessed the current works and made recommendations for additions and improvements.

Wilson (1985) quotes Jervis' report regarding the disposition of the site buildings. It is clear from this report that some of the buildings that now constitute the Middle Head Barracks were constructed as a result of Jervis' observations and in accordance with his guidelines.

'Permanent barracks should be provided in connection with the batteries...for the artillerymen, who will be trained by detachments in the working of the guns and whose duty it will be to look after the works and armaments. These barracks may form part of the defensive arrangement for protecting the batteries against possible assault by bodies of men who might in the course of an action succeed in landing at any bay in the vicinity.'

The barrack at Middle Head should be built in connection with a wall and ditch, cutting off the plateau on the eastern side of a line from Cobbler's Beach to the cliff on the harbour shore.

The barrack accommodation...at Middle Head should be for about 50 men, with -commissioned Officers' quarters, and other necessary accessories. In war time double the number may be placed in the barracks, and any further accommodation required for the garrisons for the defence of the works may be of a temporary character and provided when requisite.'

The second and much larger barracks building, **MH27**, seems to have been constructed in 1880 in direct response to Jervois' requirements. It was a much more substantial building than MH26, possibly very similar in appearance to one at South Head, with which it was more or less contemporaneous (Fig 4.7). A weatherboard building divided into two large dormitories and several smaller rooms, with extensive verandahs, french doors leading onto them and fireplaces located centrally on the northern wall of each barracks room, it seems to have been well-designed and detailed, providing excellent sheltered outdoor areas to take advantage of the location. It would have been accompanied by a number of outbuildings such as kitchens, pantries, latrines and stores, a variety of which appear on later plans and building inventories.

The most impressive building on the site, the Victorian Regency **MH29/Officers' Quarters** (also known as the Governors [sic] Cottage) was designed in 1878 and completed c1880. The existing plans, one showing the building and adjacent stables (for which there appears to be no assigned MH number) in plan and elevation (1530 295.33), and the other the location of the building in its compound and several underground water tanks (1528 295.33), indicate a single large structure symmetrically divided into two identical layouts off a central passageway, with separate kitchens attached by a long breezeway. The elegance of the drawing itself and the fine detailing of the building, some of which has now been lost through changes over the years, indicates the relative superiority of these residents over the rank-and-file housed in the barracks.

While of standard materials – weatherboard walls and corrugated iron roof with a timber-lined interior - the large sandstone basement, piers and entrance stairs give the building bulk and weight, appropriate to its place in the well-defined hierarchy of army personnel.

It is also interesting to compare it to another of Barnet's works in progress at this time, to better understand the relationship of this site to other defence sites. Barnet was also supervising the final stages of construction of the School of Military Engineering at Victoria Barracks, Paddington, a much more substantial sandstone building. It could be construed from the difference in building materials that the Middle Head works, at least the accommodation buildings, were considered less important than the Paddington barracks, or perhaps simply less visible, being so isolated from the city.

Not long after MH29 was completed, c1881, a second outer moat **MH89** and defensive wall **MH8** were built, enclosing the Barracks site to the north and west. This also seems to have sprung directly out of Jervois' proposals. The ingenious incorporation of the wall into the existing structure included a mass concrete wall punctuated by glass spy-holes (described in the 1903 inventory as 'loop-holes'). The curved mass concrete construction is consistent with the gun emplacements on the headland, making it likely that Barnet was still in firm control of the design process for the site.

MH28/Lower Barracks was also built during this period, but on current evidence cannot be dated accurately. Only a concrete slab remains from its demolition.

MH49, the military road, was also part of this phase of development, which was also likely to have included a number of other ancillary service buildings such as stores, canteens and workshops. However it has not been possible to identify or date these accurately with an MH number, although later site plans indicate possible positions for some.

3.2.4 1883-1911 From harbour defence to coastal defence

The most important aspect of this phase is the establishment of the School of Artillery in 1885. Annual artillery training camps had been held for six days over Easter at Middle

Head since 1879, along with regular weekend drills, for which volunteers (or militia) received partial pay.

By 1885, perhaps prompted by the fall of Khartoum during the war in Sudan, in which NSW troops participated in their first overseas engagement as an independent unit, camps were required to 'familiarise militia with the fixed defences of Port Jackson' (McNicol 1977,76). British officers were employed to assist in training (Doak 1988,19).

These camps were referred to as 'blue camps' because of the colour of the troops' uniform (McNicol 1977,76). The activities culminated in a final day's program to which the public was invited: a sham fight, ceremonial parade, inspection by the acting Commander of Forces, a vice-regal and ministerial visit, and 'demonstrations to interest and amuse the throngs of visitors' (ibid, 152).

The *Middle Head Gazette* (1907), a gossipy newspaper written and printed by the soldiers in training, describes how the troops were lodged under canvas, but with a range of facilities in 'our old, and now historic camping ground'. It also describes the gun drill and the instruction by specialists in telephoning, signalling and stretcher bearing. 'Temporary telephonic communication' to Mosman was established by lashing a telephone to a pole on the road until the switchboard was put into position. They also installed engines and dynamos with leads to the principal tents.

In addition to the camps, however, the 1881 Royal Commission into the colony's defences was firm in its recommendation for the formal establishment of a School of Artillery. Middle Head was the preferred site as 'entailing the least expense' and because some facilities already existed despite the fact that the existing School of Gunnery 'building, appliances and conveniences are incomplete and insufficient' (Richardson in Watt, 1957). Many of these buildings seem to have been the smaller sheds or huts that have been difficult to locate and identify on the site, rather than the more substantial cottages that still remain. A minor problem, but one that probably impacted significantly on the site was a lack of 'skidding' to move the guns around. As a result, many of the local gums were cut down, further reducing the vegetation on the site.

Clearly things improved to some degree because the *Annual Report on the Military Forces of the Colony 1886* describes the Middle Head training site as 'clean', and 'maintained in good condition and fit for service', unlike Victoria Barracks which was in 'deplorable and prone to outbreaks of fever. In 1887, 'long courses' were introduced for officers to supplement the short course training and the annual camps of the militia. These lasted for 4-6 months and generated a local officer class. Gojak notes the symbolic importance of the formalisation of training camps into a School of Artillery, in particular the value of a unified officer corps as a symbol of federation.

In 1894, Major-General Hutton wrote to the Colonial Secretary that 'the present buildings now existing for the use of the School of Gunnery at Middle Head are in a rotten and tumbledown condition, and their immediate repair and removal is necessary... The officers and staff employed at the School of Gunnery have hitherto been placed under canvas during courses of instruction... I recommend that hut accommodation be provided... The comfort of the officers will be very materially improved, and the consequent popularity of the courses will be materially increased (Watt, 1957). The government however, rather than rebuild or add to Middle Head site, which was perceived by some as not central enough, decided to remove the School of Artillery to South Head.

Between 1886 and 1911 men of all ranks completed gunnery courses at Middle and South Heads. These courses eventually led to the establishment of the modern School of Artillery at North Head (Doak 1988,20).

The three buildings apparently constructed during this period are **MH30/Sergeant-Major's Quarters**, **MH32/Guardhouse** and **MH31/The Soldier's Institute**.

The Sergeant-Major's Quarters is a weatherboard cottage, which appears to have undergone few significant alterations, although the lack of original plans make it difficult to date with any certainty. Whilst fabric analysis would support a date between 1885-1900, the documentation encourages a date from 1899-1903. The building is included on the 1903 inventory (Appendix B).

The Guardhouse, virtually the only building on site for which there is an early photographic record, is also the only brick building of the group. Built c1887, the three-room structure featured narrow slit barred windows in one half, divided into two cells, , while the other room with its internally plastered walls was furnished with a fireplace and standard windows. The extant photographs show a plain building but with some decorative detailing on the verandah valences and finials on the roof.

The Soldier's Institute is the most difficult building on the site to date precisely due to conflicting information in the documents. The documentation could support a date of 1892, or requires that it be built after 1907. It appears to have been known as 'Single Men's Quarters' during this early period of the site. Originally shown as a recreational hall with a billiards room, the change of name most likely reflects the transformation to a training centre with this building playing some form of educational role.

Federation wrought the most significant changes to the operations at Middle Head however with little direct effect on the buildings. While Federation took place in 1901, it was not until 1903 that an Act of Parliament created a national defence force consisting of Army and Navy, which led to the handing over of all defence-related sites and buildings to the Commonwealth. The 1903 report on *State Properties Transferred to the Commonwealth* gives a complete list of buildings on the site at Middle Head at this time. (See Appendix B - The list seems exhaustive, but at least one of the major buildings, MH26/Barracks No1, does not correspond to what is currently known of the building fabric, and one building appears to have been missed entirely).

Two site plans, one dated to 1907 (DHC FA 160 T39 in Wilson), and the other undated but tentatively put at c1905 (DHC FA 160 T40 in Wilson), show a number of the buildings on the 1903 list. However, the brief descriptions of the structures make it difficult to identify definitively which outbuildings are which. The most important information to be gleaned from the material is that there were a great many activities carried out on the site as part of its normal function that are no longer represented by the existing buildings. These activities included laundering (Women's' Washhouse), manufacturing of ammunition and machinery (Artificers' Workshop), and a canteen, presumably for the supply of additional rations or 'luxury' items to the men.

Some building fabric changes have been dated to around this time, most importantly the demolition of the attached kitchens of the MH29/Officers' Quarters and conversion of one of the older bathrooms to an internal kitchen.

3.2.5 1912-1938 World War I to the outbreak of World War II

Surprisingly, Middle Head appeared to be relatively quiet during this period, especially so during WWI when overseas action was so intense. Australia's isolation from the centre of action ensured that while defence stations were kept on the alert, their activities remained basically the same as they had before. The Battery's primary functions seemed to have been administration, training, mobilisation and supply.

One interesting note dating to this time is the quote by Gojak of the writings of 'Fronsac' referring to his time onsite during WWI. Reference to the 'construction of vegetable

gardens' adds a little to the picture of life in the barracks, if only to highlight the continuing relative isolation of the site. Despite the vegetable gardens, aerial photographs dating to the 1930s (ML GPO 1-07376) show that the vegetation over the main part of the site remained low and scrubby. The soil is still a noticeably thin layer over the site, with bare rock protruding through the ground cover at many points.

Some attempts were made to prepare for hostilities by increasing the available accommodation on the site with the addition of 'hutting accommodation', which remained onsite until WWII. Fullford describes them as corrugated iron (33), but the specification describes them as timber, with gas for heating and light. They were to house both Garrison Artillery and the Royal Australian Engineers in separate quarters, and included barracks and officers' quarters, mess rooms, cook houses, stores and latrines (NAA FA 160 B38 and B39). Of the 16 buildings listed it is unclear how many were completed, but site plans dated to the 1940s still indicate a large encampment adjacent to the Lower Barracks.

The work was carried out by day labour under the direction of the Department of the Interior. Major work, especially brick construction, was carried out by contract to specifications prepared by the architectural section of the Dept of Interior (McNicoll Vol II 1919-1945,330).

Other building changes did occur during this period, which may be attributable to a desire 'to provide more attractive surroundings and privacy for soldiers' (McNicoll; 330). Certainly by 1939, most the weatherboard buildings on the site, MH26, MH27, MH30 and MH31, had been converted to married quarters. MH29 remained listed as Officers Quarters on site plans until its conversion in 1955. MH27, previously a barracks building, was converted into several separate residences. The 1924 specification (NAA SP155/1 nn) requires the demolition of all the outbuildings, including the canteen, kitchen and latrines, and conversion to three residences (NAA FA 160 B3).

Physical evidence suggests that the large dormitory room of MH26 was subdivided into one large and two smaller rooms c1930s. MH31 also underwent a number of changes during this period, and by 1939 was definitely referred to as married quarters, with the addition of a small kitchen.

The major change in MH32 appears to have been functional, occurring in 1934, when the Postmaster General's Department (PMG) took it over as a wireless monitoring station. The most significant physical change to the building as a result seems to have been the addition of a toilet, although it is possible that the sandstock brick front face was rendered as part of this functional change. The mast behind the building is also likely to be part of this change.

Another manifestation of the shift away from barracks-style accommodation to a more private form of residence was the prevalence of fencing around the site. Barnett's 1878 drawings of MH29 specify a demarcation of the officers' domain by picket fencing. By 1939, fencing appeared to be an all encompassing. Every cottage and residence was surrounded by a paling or picket fence, and records of works to the place show a preponderance of specifications for fencing well into the 1960s. It is understandable that living in close quarters in a strictly hierarchical regime would engender a desire for a well-defined sense of personal space.

Mains electricity was connected to the site in 1929.

3.2.6 1939-1945 The war comes to Sydney

In 1939 Australia was again on a war footing, and Middle Head once again sprang into life, designated a Close Defence Observation Post (Fullford, 229). Early volunteers,

referred to as militia, were directed to Middle Head where they remained in a 'camp of continuous training' (Fullford, 33). They were issued with 'hessian palliasses and given straw to fill them, three blankets and a ground sheet' that could also be used as a raincoat (ibid, 33). They were housed in the WWI mobilisation huts dating back to 1915. Mention is also made of additional hutted accommodation erected behind the Outer Middle Head Battery (ibid, 128). These 'sleeping huts' seem to have been a uniform 60' x 20' (18.3m x 6.1m), of weatherboard and corrugated iron (NAA SP459/1,1948).

Maps dated to the early 1940s indicate a substantial encampment consisting of a number of huts, as well as latrines, a septic tank and a laundry.

Other buildings on the site underwent changes in response to the wartime situation, and for the first time since its development, women had a formal presence on the site in the role of signallers and observers. MH29 was converted to a Red Cross Hospital, although with apparently little physical change (1312,1945).

The communications function of MH32, the wireless station, was intensified during WWII, when it was used for more general intelligence communications monitoring.

3.2.7 1946 After the end of the war

While technical operations wound down on site after the war ended in 1945, the residential buildings underwent a flurry of activity. The returning troops needed accommodation and the army records are crammed with specifications for repairs and conversions of existing buildings, mainly barracks huts, to married quarters.

In October 1945 a report stated that 'buildings are in a very bad state and "untentantable" without repairs...there is already a waiting list of 23 PMF (permanent military force) personnel for quarters' (NAA SP459/1,1945). £425 was allocated for repairs on eight cottages, the list of which appears below. Because of the revised numbering system and disappearance of the annotated site plan, it is not possible to state definitively which cottages are referred to but available evidence suggests they are as given.

No or description	Size	Repairs necessary
No 1 (Officers' Quarters) MH29	6 rooms, Bathroom Kitchen Laundry	General minor repairs External repainting only Provision of electric stove Repairs to fences
No 2 Probably MH30	3 rooms Bathroom Kitchen Laundry	General minor repairs and repainting Kitchen fittings – new stove and sink required
No 3 Probably MH26	4 rooms Bathroom Kitchen Laundry	General minor repairs and repainting New stove, sink and bath heater and hand basin required Repairs to fence
No 4 BQMS Quarters Probably 135 Barracks No2 MH27	3 rooms Closed in verandah Bathroom Kitchen Laundry	General minor repairs and repainting New bath heater required
No 5 Probably 136 Barracks No2 MH27	4 rooms Kitchen and Laundry combined	General minor repairs and repainting New stove, bath heater and shower required

No 5 Probably 137 Barracks No2 MH27	4 rooms Kitchen and Laundry combined	General minor repairs and repainting New panels to 3 doors New bath heater required
No 5 Probably 138 Barracks No2 MH27	4 rooms Kitchen and Laundry combined	General minor repairs and repainting Replacement of borer infested timber New stove and bath heater required
No 8 Probably MH31	2 large and 2 small rooms bathroom Kitchen and detached laundry	General minor repairs and repainting Repairs to outside latrine New bath heater required

The pressure to provide additional accommodation eventually provoked a series of exchanges between the neighbouring Army and Navy settlements as they each sought permission to erect more prefabricated buildings to house their married staff. In 1951 the Navy approached the Army to hand over some land, eventually deciding on the land 'inside the moat'. At the last minute, some 12 months later, the handover failed, put down to the 'inflexibility of Treasury' in its opposition to creating prefabricated married quarters for servicemen in metropolitan areas (NAA SP459/1,1951-52).

Huts that had been hastily erected during WWII were suddenly in demand as married quarters. The Army tried to cater for the demand by upgrading whatever was available. Some of the huts in the Lower Barracks area, as well as several just outside the north moat, were scheduled for improvement. MH28, the original Lower Barracks, also underwent conversion to married quarters (8068A 296-30,1948).

Desperate soldiers sought ways to speed up the process of conversion, submitting hand drawn plans showing how one or two huts could become a dwelling for a family of five. Several offered to use 'salvage' materials, and their own labour. These residences were termed either 'temporary' or 'emergency' depending on the level of facilities, but the men were still expected to pay 5% or 10% of their pay as rent (NAA SP459/1,1947).

By 1947 most of these initial conversions were complete.

One building, MQ532, located between MH32 and the moat, first appears on plans after 1939 and is gone by 1978. It was classified as an 'emergency class' hut but in 1950 was scheduled to be further upgraded to 'temporary' to house two adults, a 17-year-old girl and two smaller children. The work included construction of a new laundry, new windows and a fence. The proposed new verandah was deleted. The Commanding Officer himself wrote a letter requesting that the decision be reversed, stating that 'the back verandah is not essential, but are we dealing only with essentials?' (NAA SP459/1,1950).

A similar concern for niceties was expressed by another soldier in his request to relocate to another building on site with his young family because of his current quarters' 'close proximity to the men's barrack and the laundry' (NAA SP459/1,1957).

In 1953, MH27 was converted from three to four residences 135, 136, 137 and 138 (CEN 9879,1953). Small external offices were converted to a kitchen, lounge and dining room, while the verandah became a small living/bedroom and an entrance hall.

Of the extant buildings, MH26, MH29 and MH32 all underwent significant transformations post-WWII, possibly because there had been little or no maintenance on them for some time, and possibly to cater for the demands of the returning soldiers. Most of the existing building and site plans date from this time.

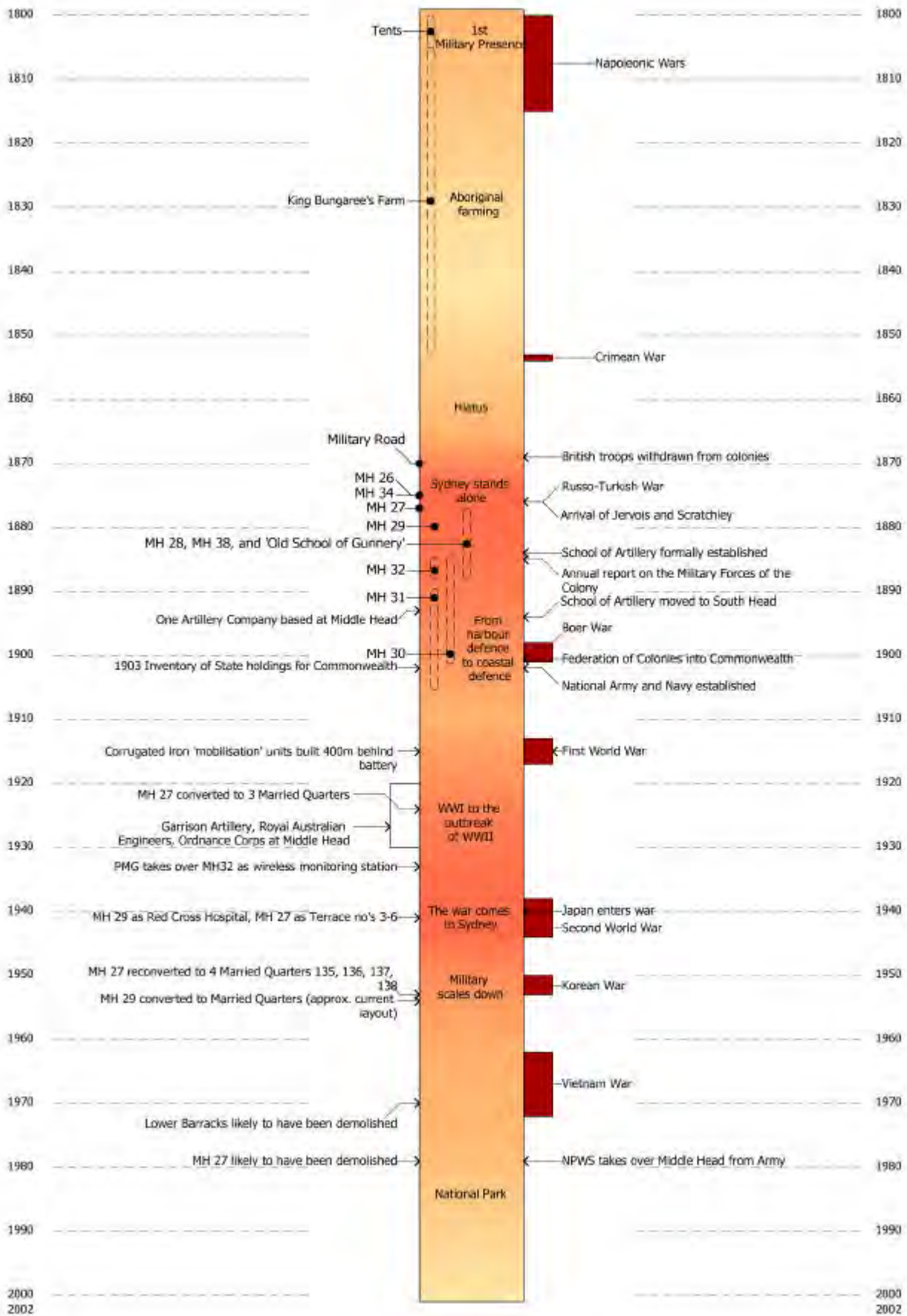
AC sheeting was introduced as a roofing material on many of the buildings onsite. It was a material much favoured for use on government buildings for its durability and relative ease of maintenance, although clearly the significant health issues were not well-understood.

MH29, which was the last cottage to be vacated by wartime AWAS personnel (NAA SP459/1,1945), appears to have been converted into two entirely separate flats by the introduction of a series of partitions blocking off communal hallways (CEN 382,1955). The only remnant of 'communal' living was a laundry that was located in the kitchen space created c1905. A paling fence was introduced along the line of the old kitchen breezeway to create two separate yards, although the 'front' yard seems to have remained undivided.

In April 1980, the site was formally handed over to the NSW National Parks and Wildlife Service to become part of Sydney Harbour National Park. Shortly before the handover, the Army seems to have demolished MH27; the major barracks building that had been converted into married quarters. These quarters had remained occupied until c1973, although possibly by only three families (Lockwood pers comm 27 May 2002). The remaining huts in the Lower Barracks area also remained occupied right up to their demolition c1970s. MH28, the first building in that area, was also apparently the last to go. Four of the married quarters remained occupied by 'Commonwealth personnel until replacement accommodation becomes available' (Dept of Environment and Planning memorandum,1980), one was transferred almost immediately for use by NPWS, while the radio monitoring station in MH32 continued to be used by the Commonwealth Department of Postal and Telecommunications at 'a peppercorn rental' (ibid). It was not finally vacated until 1985.

The National Parks and Wildlife Service have since occupied the historic buildings. Their current use is noted in each individual datasheet, along with a discussion of the physical condition of each building and approximate dates of changes to the fabric.

SUMMARY TIMELINE



4.0 Physical Analysis and Condition

4.1 THE STUDY AREA

The following is a description of the features and important aspects of the site as a whole. Detailed physical analysis of the building elements can be found in the datasheets at the end of Chapter 4.

The site



Fig 4.1 The wider context of Middle Head showing its strategic place in the defence of the harbour.
SYDWAY WEBSITE
(www.street-directory.com.au)

'Middle Head is a rocky headland of Hawkesbury Sandstone on the western side of the main channel of Sydney Harbour. It is immediately west of the entrance to Port Jackson, between North and South Heads, and Sow and Pigs Reef. Enemy vessels aiming to attack Sydney had to negotiate the reef after entering the harbour while facing the possibility of being fired on from behind from batteries on Middle Head, and broadside on by the casemated guns at Georges Head. The elevated level area of Middle Head was ideal for spread out batteries, with plenty of room for barracks and infrastructure. The height provided protection for the guns, while providing clear views of the vulnerable upper decks of target ships. The cliffs provided a significant obstacle against any attempt to silence the guns by landing troops' (Gojak, 5).

'Middle Head is generally surrounded by vertical cliffs averaging at least twenty metres in height, the bases of which fall sharply into the harbour on the northern and eastern sides, and on the southern side have level inter-tidal rock shelves. The top of the headland is level, and was originally covered with coastal heath on shallow, poorly developed soils interspersed with rock outcrops. At the northwestern end of Middle Head is Cobblers Beach, a sandy protected beach at the base of a steep, thickly wooded slope' (Gojak, 5).



Fig 4.2 Photograph of the site c1890s.
NPWS Slide Library

The subject site of this study can be described as all that area within the defensive moat, including the tennis court and the lower barracks area. The area has a small village type of atmosphere, with a group of similarly clad weatherboard buildings surrounding a large grassed area. Beyond this the heavy vegetation of the National Park forms a boundary in all directions, largely obscuring the moat, defensive wall and harbour from view. *[We have retained the use of the term 'moat' in order to maintain continuity with previous reports].*



Fig 4.3 Recent aerial photograph of the site.
THE OFFICE OF THE SYDNEY
HARBOUR MANAGER
(www.bearings.nsw.gov.au - SPLASH website)

The current appearance of the study site as a 'village green' with residences scattered around it is quite misleading, especially since MH27 - Barracks No.2 occupied this central position. Further, instead of focussing into a common space, the buildings have been oriented away from the centre to overlook different points of the compass and to function as independent entities rather than as a residential group. Each building is sited on a high

point, particularly MH31 – The Soldier’s Institute, in order to command the best sightline for surveillance. MH26 – Barracks 1 also ‘turns its back’ on the site and looks across the road and towards the entrance to the site, and beyond to the next headland.

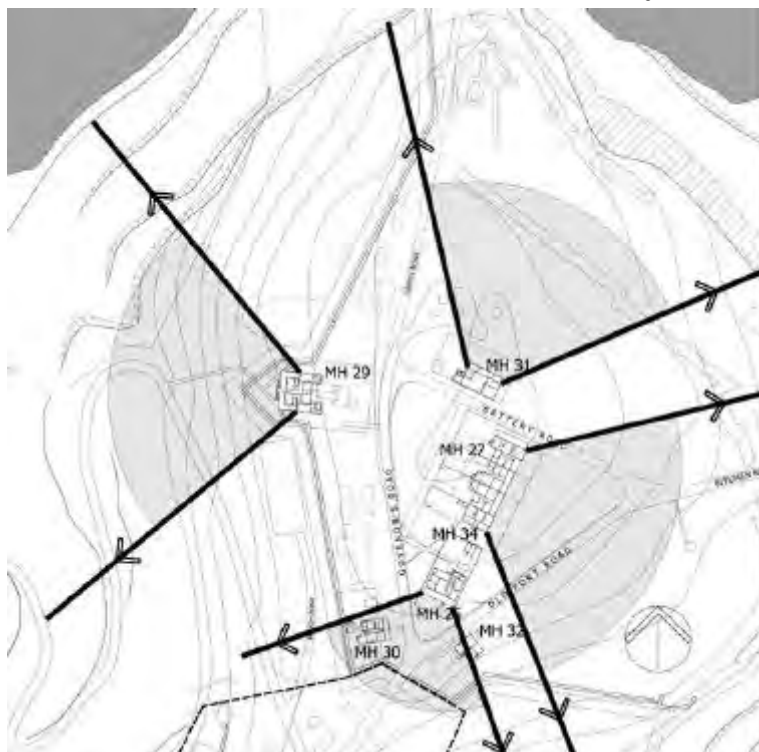


Fig 4.4 The layout of buildings and their importance as surveillance posts.
PAUL DAVIES PTY LTD 2002

Two of the buildings around the entrance to the site appear to differ from this pattern. MH32 was the Guardhouse and MH30 the Sergeant-Major’s Quarters, both of which were focussed on the day to day running of the camp rather than the external threat.

It is also important to note that when the site was in full use as a fortification and barracks, the vegetation cover was considerably less, as evidenced by the Holtermann photos dating to the 1870s as well as the 1890s series of photos. Despite the twenty-year gap both groups of photos show a headland almost bare of anything but low heath (Fig 4.2). This would have greatly enhanced the observational capabilities of the site generally, as well as allowing a clear path for the artillery that was the site’s . It is now more difficult to fully understand the site’s primary military defensive function as a result of the thick bush regrowth that surrounds it.

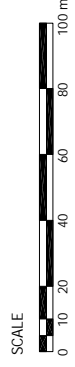
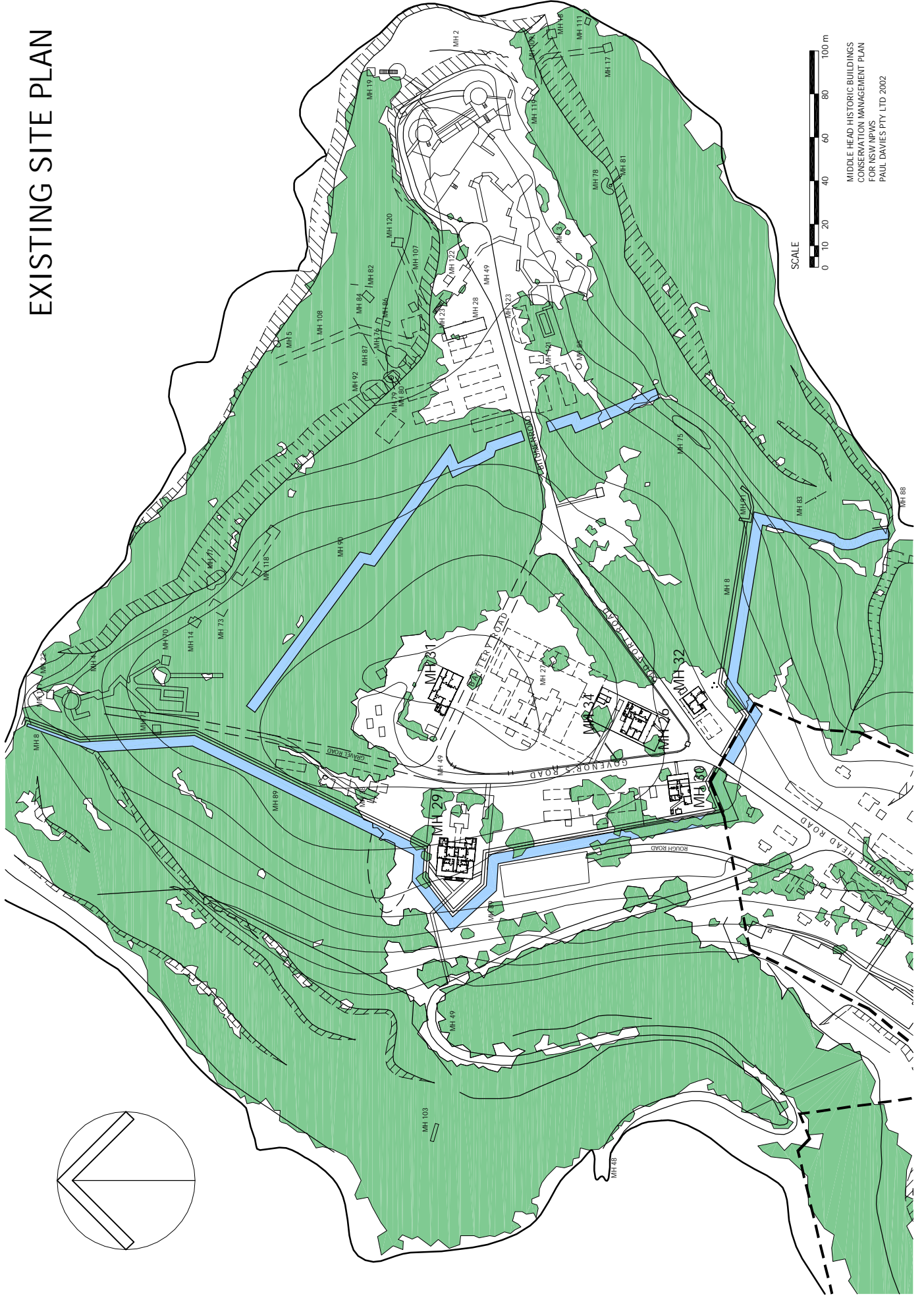
4.1.1 Archaeological Resource

One of the most important aspects of the site as it now stands is the archaeological resource related to the former occupation as a military site. In addition, the possibility that the site may have been part of the Bungaree Farm site (although this is unlikely as the site has such poor farming soil) adds to the potential research value of the site.

The following sections describing site features largely describe the archaeological resources that will make up the Archaeological Management Plan. These items can be summarised as the sites of former buildings, the surroundings of these buildings, the moat and any fill, extant features such as drains, paths and roads, any supposed garden areas, any possible rubbish discard areas, and any possible pit toilet or latrine sites.

The following site plan (Fig 4.5) shows the site as it now stands with the historic features indicated as dotted lines. Descriptions of these site features follow.

EXISTING SITE PLAN



MIDDLE HEAD HISTORIC BUILDINGS
CONSERVATION MANAGEMENT PLAN
FOR NSW NPWS
PAUL DAVIES PTY LTD 2002

4.2 THE DEMOLISHED BUILDINGS

The five remaining buildings MH26, MH29, MH30, MH31 and MH32, along with the most significant outbuilding MH34, are dealt with in the datasheets at the end of this chapter. Of the remaining sites the two most important are MH27 – Barracks 2, and MH28 – The Lower Barracks.

4.2.1 MH27 – Barracks 2

Barracks No2 (MH27), now demolished, was the largest building on the site, tendered for in 1878 and completed in 1880 (Wilson 2.14). It was still on site in a 1978 aerial photograph (NPWS - NSW 2707/168 – April 1978) and appears to have been demolished at the handover from the army to National Parks in 1980. It is thus the most important of the demolished buildings due to its size and long period of association with the site.

When first built it appears to have had two large dormitories with a fireplace at each end, catering for the permanent garrison recommended by Jervois in 1877. The additional influx of artillerymen for the annual Easter training camps would have been housed under canvas, sleeping on straw ‘palliasses’ with temporary catering and ablution facilities. Whilst there are no plans of the building as it was first constructed, a plan showing its conversion to married quarters (FA160 B3 – 1924) has enough information to show its original configuration. The shading is drawn over the plan to show the elements demolished in the transformation and the original configuration of the dormitories.

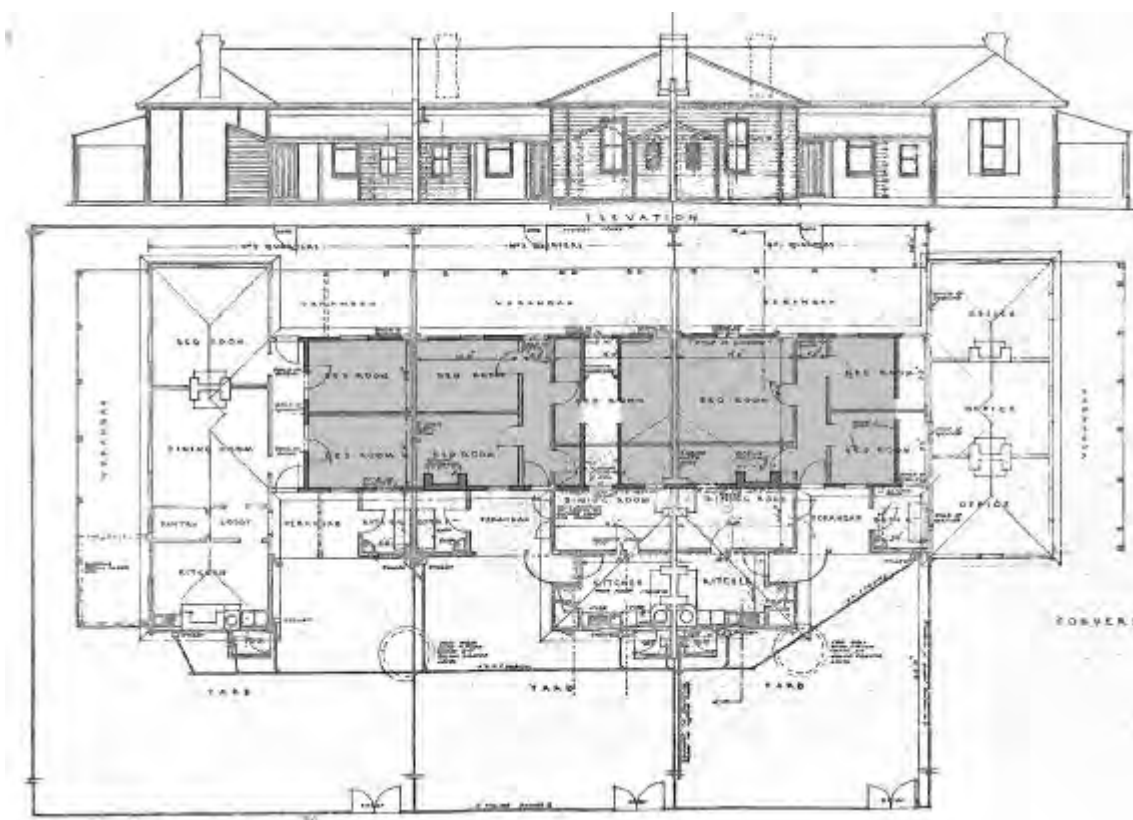


Fig 4.6 Plan of MH27 showing original works to convert it into 3 married quarters and rear elevation. The shading has been added to the plan to show the original configuration.

PLAN FA160 – B3 Dated 1924

In addition, an early slide of the barracks at South Head shows that Barracks 2 conformed to a largely standard design for the time. The photograph below would be identical to the original planning of Barracks 2, except for the obvious site differences. The shape of the building, with two projecting bays at either end of a verandah, the position of windows and French doors, the end verandah, and even the positions of chimneys are identical.

The bays of the front verandah are very similar, and MH27 would have been a similar size to the building in the photo.



Fig 4.7 Barracks, located at South Head with a substantial similarity to MH27. This photo is the best indication of the form, materials and typology of MH27.
NPWS Slides

MH27 was one of the many buildings on site, most now demolished, that underwent conversion to married quarters, although this one may have been altered as early as 1924 (NAA SP155/1 nn). The 1953 plan (Fig 4.8) shows four separate residences, three with three bedrooms and one with two. A paling fence surrounded the whole complex, with a picket fence across the front, or south boundary. The 1924 specification also indicates the presence of several water wells in this area; two are shown in Fig 4.6. Certainly one of the significant remnant features of this part of the site is a large area of concrete with what appears to be a capped well in its centre.

The site of MH27 remains cleared and can be regarded as a site of high archaeological sensitivity. The building was associated with the very early period of the site occupation, and has only recently been demolished. The potential for deposits is thus very high.



MH27 BARRACKS 2 1963 Changes

SCALE 1:250

Fig 4.8 The layout of MH27 after substantial changes had been made to reconvert the large barracks into four married quarters. The two phases of conversion Fig 4.6 and above substantially altered the structure.

PAUL DAVIES PTY LTD 2002 from Plan No CEN 9879 – June 1953

4.2.2 MH28 – Lower Barracks

MH28 seems to have been one of the first buildings on the site and one of the most enduring. No early plans remain.

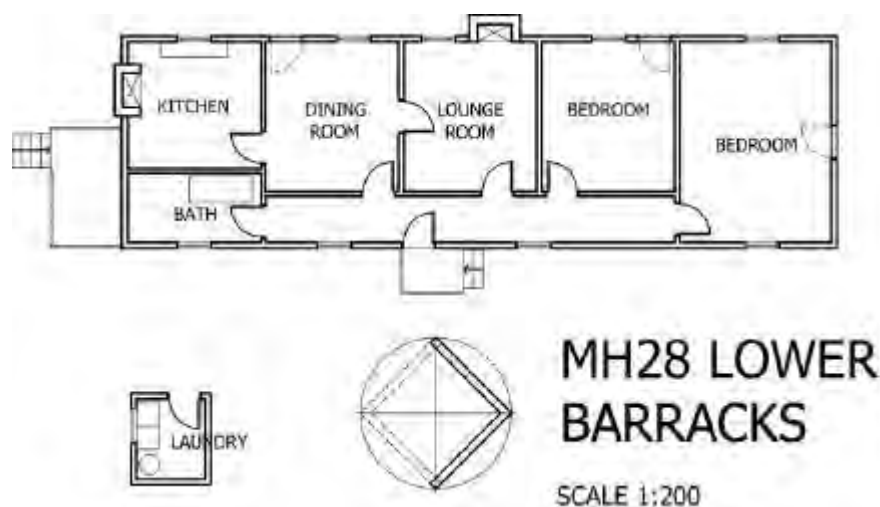


Fig 4.9 Plan of conversion of MH28 dated plan 1948.
PAUL DAVIES PTY LTD 2002 from Plan No 8068A/296-30 – May 1948

Built as a standard 60' x 20' weatherboard barracks, it survived intact until 1948, when Signaller F. Smith requested its allocation and conversion to married quarters. A sketch plan of the area is accompanied by indications for the disposal of two adjacent huts affected by a watercourse, and the conversion of a further two huts to married quarters (SP459/1, 1948). A more formal conversion plan was drawn up a month later (Fig 4.9). It became a two-bedroom house, with a lounge and dining-room, all rooms opening off a long corridor. A verandah was added at one end and an entrance porch in the middle. At the same time a new laundry was erected to the north of the area, designed to service all the accommodation huts.

It appears that MH28 was the last of the buildings in this area to be demolished, c1970s. The only remnant of the site is a concrete slab.

4.2.3 Other Demolished Buildings

Outside these two important structures, there were many other structures on the site throughout its history. Fig 4.10 shows what appears to be the extent of them from the available site plans. It should be noted that the limits in the documentary sources means that this plan cannot be considered to be a comprehensive list of all structures on the site. The best available information on most of the structures is found on the various site plans in Appendix C where some of them are named with their function. Some are given building numbers, and some appear to have even been transformed into married quarters. The detail on most of these buildings is insufficient to comment further than to identify their locations and note the uses ascribed to them on the historic site plans.

Some buildings are worth a mention. The building immediate south of MH32 – Guardhouse was given the number MQ532 when it was converted to a married quarters. There is a large rectangular building with a small projection to the rear to the immediate north of MH30 that is identified as the Old School of Gunnery, which is the only building supposed to predate the 1870s expansion. Gojak incorrectly ascribes this use to MH38, which is the building to the immediate north of MH29. In the area between MH29 and the Old School of Gunnery stood a few sheds, one of which was the stable building drawn by Barnet to support MH29.

The large group of buildings around the Lower Barracks area were temporary, and quite possibly, prefabricated structures. Nonetheless, some were converted in married quarters in the housing shortages after the war. A whole range of buildings was constructed just outside the entry gates (and thus outside the study area) with full descriptions shown on the undated plan 5555 c.1942.

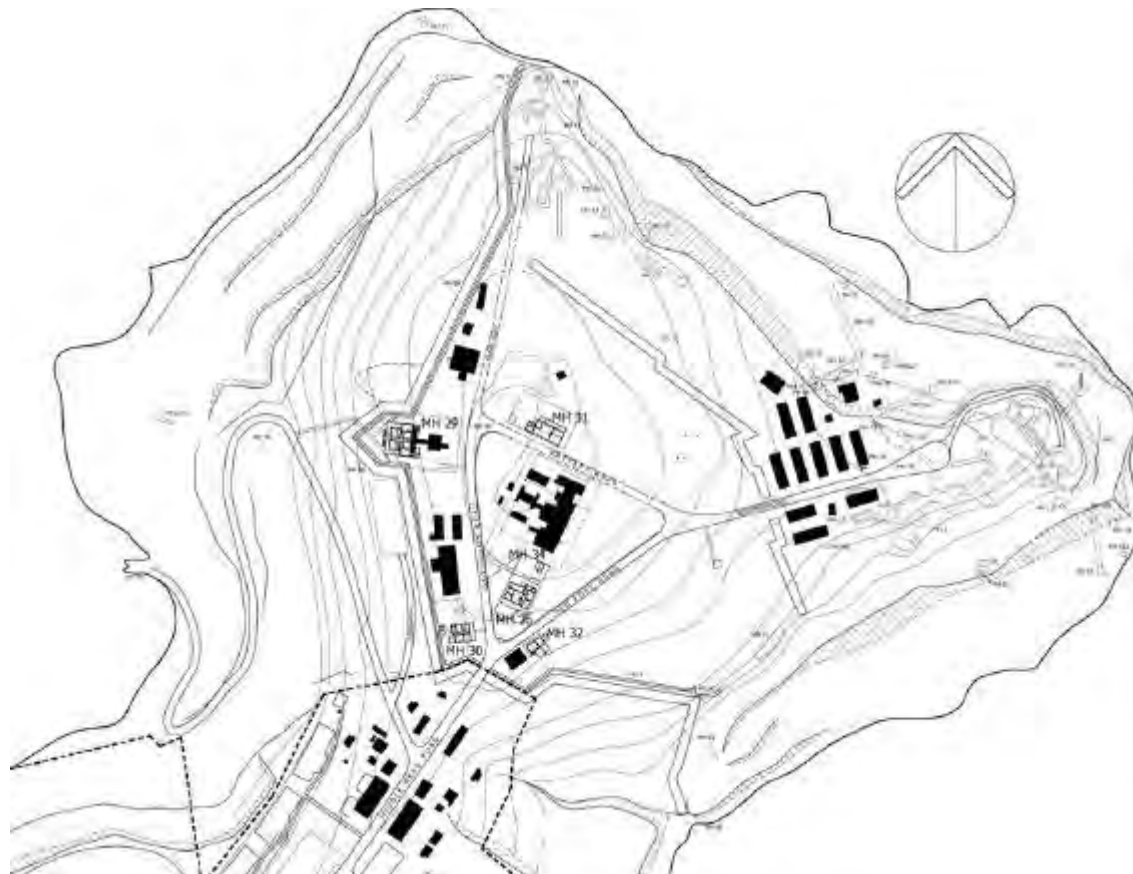


Fig 4.10 Site plan showing all known structures throughout the history of the site. The demolished structures are shown in black. The most important of these structures are MH27 (in the centre of the triangle) and MH28 (the block on the far right of the group of buildings near the right side fort – marked with two dots). Other notable demolished structures are the building adjacent MH32 (MQ532), which was converted to married quarters, and the possible site of the School of Gunnery shown to the immediate north of MH30. To the immediate south of MH29 were the stables, contemporary with MH29.
PAUL DAVIES PTY LTD 2002 combined from all historic site plans.

4.3 OTHER SITE FEATURES

4.3.1 The Moat and Defensive Wall

Gojak identifies the construction of the Inner Moat (MH90) at the same time as the batteries shortly after the contract was signed in 1871. It thus dates from sometime between 1871-1876. He also notes that 'if the earliest detailed map of the fortifications is accurate then the [inner] moat was more extensive than at present, with a branching section between the two batteries. No remains of this section have been identified'. Gojak does not describe the materials, but refers to the moat as more of a 'defensive ditch' that no doubt involved excavating the sandstone. There appears to be no defensive wall associated with MH90.



Fig 4.11 The defensive wall associated with the area of the moat around MH29 showing the “loop holes”. The mass concrete walls are in a relatively poor condition and are in need of conservation. Such things as plant growth, damp and being covered by soil are causing these important elements to deteriorate. PAUL DAVIES PTY LTD 2002



Fig 4.12 The section of the outer moat adjacent the tennis courts. This was once the site of the stables building. The moat has been infilled and built up to the head of the defensive wall, largely obscuring an important site feature and potentially endangering the wall condition. The fill used may contain sections of demolished buildings. PAUL DAVIES PTY LTD 2002



Fig 4.13 The defensive wall associated with the eastern end of the outer moat behind MH32. The unchecked growth of trees has largely concealed the moat and is largely obscuring the wall. PAUL DAVIES PTY LTD 2002



Fig 4.14 The only exposed section of the moat is that around MH29. This area is in poor condition and is substantially overgrown. PAUL DAVIES PTY LTD 2002

The outer moat (MH89) is closely aligned with the construction of MH29 (completed by 1881) and so must date from approximately this time. The outer moat and the positions of buildings from 1877 onwards largely conformed to the advice given by the British military advisor Jervois, and the form of this defensive feature is largely due to his influence.

‘The moat was deeper than the inner moat and included overhanging brackets for barbed wire. The wall was backed along part of its length by a low stone wall (MH8). At the northern end, after the moat ended, the wall was extended to the cliff edge. At the southern end of the moat a defensive position, MH91, was built to cover approaches to the moat’ (Gojak).

In the areas around MH29 the defensive wall is constructed from mass concrete, using sandstone rubble and possibly brick rubble in a cement matrix. As Gojak states, this is an early use of mass concrete in Australia. In many places the condition of the wall requires conservation works, and as the material is an early form of concrete, a specialist in the field needs to have an advisory role so that the repair work does not increase the damage. Refer also to Gojak for recommendations about fortification repair.



Fig 4.15 The stone front gates. The entrance to the site was once via a timber bridge over the moat, a far more defensive position than the present entrance.
PAUL DAVIES PTY LTD 2002



Fig 4.16 The other side of the entry gates, the trees obscuring the stone wall are intrusive.
PAUL DAVIES PTY LTD 2002



Fig 4.17 Historic photo of entrance gates c 1890s.
NPWS Slides



Fig 4.18 The original entry to the site was funnelled through this timber bridge. NPWS Slides

The NPWS Sydney Harbour National Park Plan of Management for the site recommends investigating the excavation of the defensive moat in order to better interpret the site, and this would be recommended if the means to achieve it were available. It is possible to interpret the moat and defensive wall without a full excavation, by clearing the line of the moat of vegetation and providing enough information to show its outline on the site. In the case of areas such as Fig 4.12 above the following sketches show a possible way of addressing interpretation without full excavation.

The moats themselves, as a perimeter element, could be used as a way of walking around the site and experiencing the fortifications in the context of the whole military establishment at Middle Head.

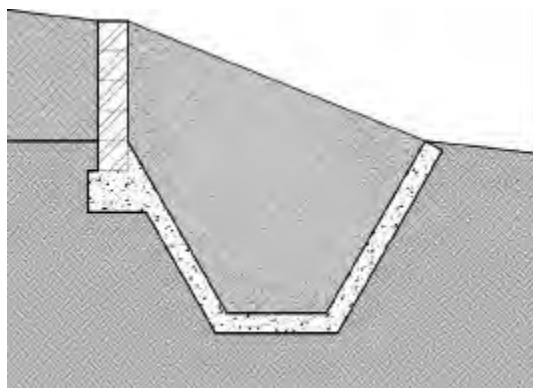


Fig 4.19 The present configuration of fill against the wall, obscuring the moat and wall. Not to scale.
PAUL DAVIES PTY LTD 2002

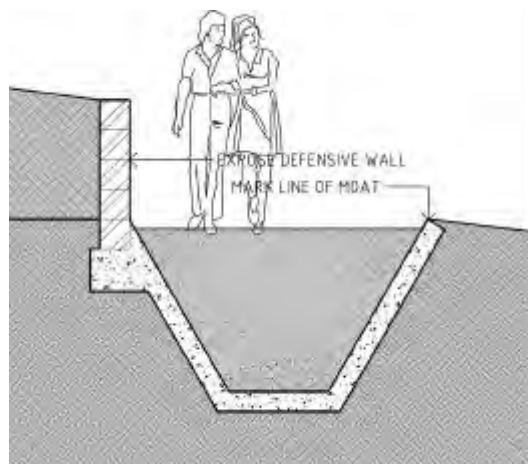


Fig 4.20 A possible means of using the moat and wall as an interpretative feature on the site without full excavation. Not to scale. PAUL DAVIES PTY LTD 2002

4.3.2 The Roadways, Site Drains and Culverts

Gojak states that the first stages of planning for the site in the wake of the British troop withdrawal from Australia were the access ways to the site. 'A military road following the ridge to North Sydney was built, as were roads between the Middle Head batteries (MH49) and down to Georges Head (GH24). The roads were cleared in late 1870 using unemployed labour, after which the Roads Department finished them. The original type of road is unknown, but sections of Telford Road remain leading from the Middle Head Barracks to the Inner Middle Head Battery. Sections in use at a later date were tarred over'.

There are two bitumen covered roads, Govenors Rd [sic] and Old Fort Rd, both of which have some remnant drainage features and stone kerbing. Battery Rd has largely been obscured and overgrown with grass, and needs to be redefined. The gravel road to the inner fortifications is now little more than a meandering pathway, and could be straightened and redefined. The bitumen road to the outer fortifications is in better condition.



Fig 4.21 An early kerbing and drainage feature to a road no longer extant.
PAUL DAVIES PTY LTD 2002



Fig 4.22 A grass covered drain with some stone sections and later materials.
PAUL DAVIES PTY LTD 2002



Fig 4.23 A bitumen covered iron grate cover to a sump.
PAUL DAVIES PTY LTD 2002



Fig 4.24 left A stone drains changes to a more modern concrete one.
PAUL DAVIES PTY LTD 2002



Fig 4.25 above A remnant stone sump, now overgrown
PAUL DAVIES PTY LTD 2002



Fig 4.26 right The gravel roadway
PAUL DAVIES PTY LTD 2002

There are also remnants of the roadway that ran along the face of the Barracks 2 outbuildings, and one that swung sharply into the centre of Barracks 2 itself. Fig 4.21 shows the clear remnant of this feature.

The drains are in some cases overgrown with grass, and the lower sump was blocked in recent heavy rain. It is important to clear the drains and to maintain them regularly.

4.3.3 The Gardens

The early stark photos of the site show that the military use of the site did not generate much in the way of gardens. The only noted site appears to be a forecourt area to MH29 in a return of the moat. This area would appear to have been a formal grassed courtyard.

Gojak identified the barracks area generally as having some garden landscaping. There are some well spaced mature coral trees (that appear to be self seeded), but no other obvious areas of formal planting within the study area. In general, within the triangle only the mature trees should be kept. The lower level shrubbery particularly outside the fenced areas is an intrusive element as it obscures the original military nature of the site. The plantings that assist in defining the yards of the buildings do perform a role, and selected mature plantings from these areas should be retained.

More critical to the site as a whole is the identified introduced plantings, which *Gojak's* maintenance schedule encourages to be cleared. This is as important for the historic buildings of the barracks area as it is for the fortifications.

The NPWS Sydney Harbour National Park Plan of Management for Middle Head has the twin objectives of:

1. Interpretation of fortifications and defence history
2. Rehabilitation of natural vegetation

The peculiar nature of the Middle Head barracks area, as a surveillance post with most buildings orientated towards the harbour, would indicate that to achieve the first objective would require the reduction of the amount of vegetation surrounding the site. It is understood that there will be limits on this process, mainly due to the second objective, but a level of clearing is essential to an understanding of the site. A compromise may be to clear important vistas, say from the Soldier's Institute, so that some remnant of the observational function of the site is recovered.

4.3.4 The Tennis Court

The tennis court site (background of Fig 4.12) is an important resource for the site and needs to be recovered in longer term planning. As a level site that is outside the historic precinct of the buildings with direct road access from Middle Head Road, the area adjacent to the tennis court is well placed for some adaptive reuse to relieve the pressure for adaptation within the core historic site. Functions that may involve an inappropriate level of traffic, heavy machinery, or new structures as a first option should be assessed for their suitability to occupy this part of the site.

4.3.5 The Signal Towers

The Sydney Harbour National Park Plan of Management provides a policy for the radio masts on the site.

The Sydney and Middle Harbours Regional Environmental Plan recommends that skylines that are vegetated be maintained free of built elements and that intrusive visual elements should be screened or removed. The radio masts on Middle Head are one element identified in the regional plan for removal. One radio mast is currently used by the Police Department for public safety purposes and will remain. The remainder will be assessed for historic significance and removed if not found worthy of preservation. The masts will not be used by other than the police as there is concern that any other use of the masts could interfere with police

operations.

(NPWS Sydney Harbour National Park Plan of Management – Sydney Harbour National Park p11)

The Police presently use a signal mast off the road near the end of Old Fort Road as a radio mast. This is the only permissible use under the *Sydney Harbour REP*, and the *NPWS Sydney Harbour National Park Plan of Management*.

The use of a different radio mast adjacent MH32 – Guardhouse appears to date to the earliest days of the site. The 1892 historic photos (Fig MH32.5) show a signalling mast in the same position. A 1930s aerial photo (Figure 6 in *Gojak University of Sydney, Macleay Museum, Historic Photograph Collection*) does not show any mast. The present mast appears to have been installed for use during the Second World War. MH32 does have some significance attached to its use as a communications and intelligence post during the war, and this mast would be attached to that significance. The mast is not operational and the REP would prevent any new use of the mast.

When assessing the cultural significance of these structures, the significance of use must be considered along with the fabric assessment.

4.4 SITE MOVEMENT

4.4.1 Car Access and Parking

The study site as a whole has a medium to high level of archaeological significance and has a relatively high level of cultural significance. Consolidation of vehicular movement across the site and various uses of the buildings and the site should be made with regard to the potential impact on the primary archaeological significance and the aesthetic values of the place. Uses that greatly increase traffic should not be encouraged. Car access to the site should be limited to the minimum required for the operations on the site, and should be managed in a way that consolidates and locates parking and car movement to minimise impact upon the site.

The site of the backfilling to the north of MH29 offers one area that has already been substantially disturbed, and is level and cleared. Overflow parking can be directed to the verges of roadways that do not have historic stone drains or known archaeological sites.

It is strongly recommended that large and or heavy vehicles should not be permitted into the historic buildings precinct, particularly on a regular basis.

4.4.2 Carports and sheds

At present MH29, MH30, MH31 and MH26 have carport structures related to the former married quarters. In general they are designed as low-impact structures with simple steel frames and flat roofs. Of these MH29 and MH30's carports are relatively well positioned with some distance to the main buildings. MH26's carport intrudes on the context of the building, and has an impact upon the relationship with MH34. MH31's carport is the most poorly placed and has an impact, particularly on the verandah structure.

Whilst the convenience of parking close to the buildings is an advantage, a more appropriate solution for the whole site would be to consolidate parking into an area that has low impact.

The sheds have been dealt with in the nearest adjacent building datasheets with the exception of MH34, which has its own sheet.

4.4.3 Pedestrian Access, Tours and Site Tracks

At present the pedestrian tours of the fortifications is a low key, non-directed activity. There is some problem identified by *Gojak* with vandalism and graffiti, as well as issues of

public liability for NPWS due to the irregular access and potentially dangerous aspects of the fortifications site.

This plan encourages the formalisation of self-guided site tours to include the Barracks area and a possible interpretation space to expand on the experience of the fortifications. Where possible the datasheets encourage publicly accessible uses for the buildings that could be included in such an interpretative response.

This plan also identifies the interpretative value of the moat and defensive walls that form the border of the study site both for their potential in contributing to a greater understanding of the military use of the site, and in being a useful way for pedestrians to circumnavigate the site and visit the gun emplacements as part of a comprehensive walking tour. This would include some work to clear and level the fill in the moats and to recover sections of the defensive walls. The circuit would also need to be completed with formal links between the two moat areas, and across the open sections in front of MH29. This would have the secondary purpose of providing greater site security in removing the present access point to the site across the tennis court area.

4.5 DATASHEETS

The next part of this plan is in the datasheet format. The NSWHO Conservation Management Plan format continues at Chapter 5.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH26

Building Name:

Former Barrack 1

Other Reference Numbers

Site Plan: No. 10

MQ 134

LOCATION PLAN



Fig MH26.1 Site Plan showing Barrack 1 relationship to Middle Head Precinct. Based upon survey drawing CEN 1515 - 1960 and overlaid with aerial photograph and site measurements- PAUL DAVIES PTY LTD 2002

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Former Barrack 1

Other Reference Numbers

Site Plan: No. 10

MQ 134

PHOTOGRAPHS



Fig MH26.2 View of MH26 from entrance to site. PAUL DAVIES PTY LTD 2002



Fig MH26.3 Rear verandah. PAUL DAVIES PTY LTD 2002



Fig MH26.4 View from north showing bathroom additions. PAUL DAVIES PTY LTD 2002



Fig MH26.5 View from west showing early kerbing and drainage line of roadway. PAUL DAVIES PTY LTD 2002



Fig MH26.6 View from north east showing relationship to MH34 and general context. PAUL DAVIES PTY LTD 2002



Fig MH26.7 View from north west showing relationship with main roadway. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH26

Building Name:

Former Barrack 1

Other Reference Numbers

Site Plan: No. 10

MQ 134

DRAWINGS

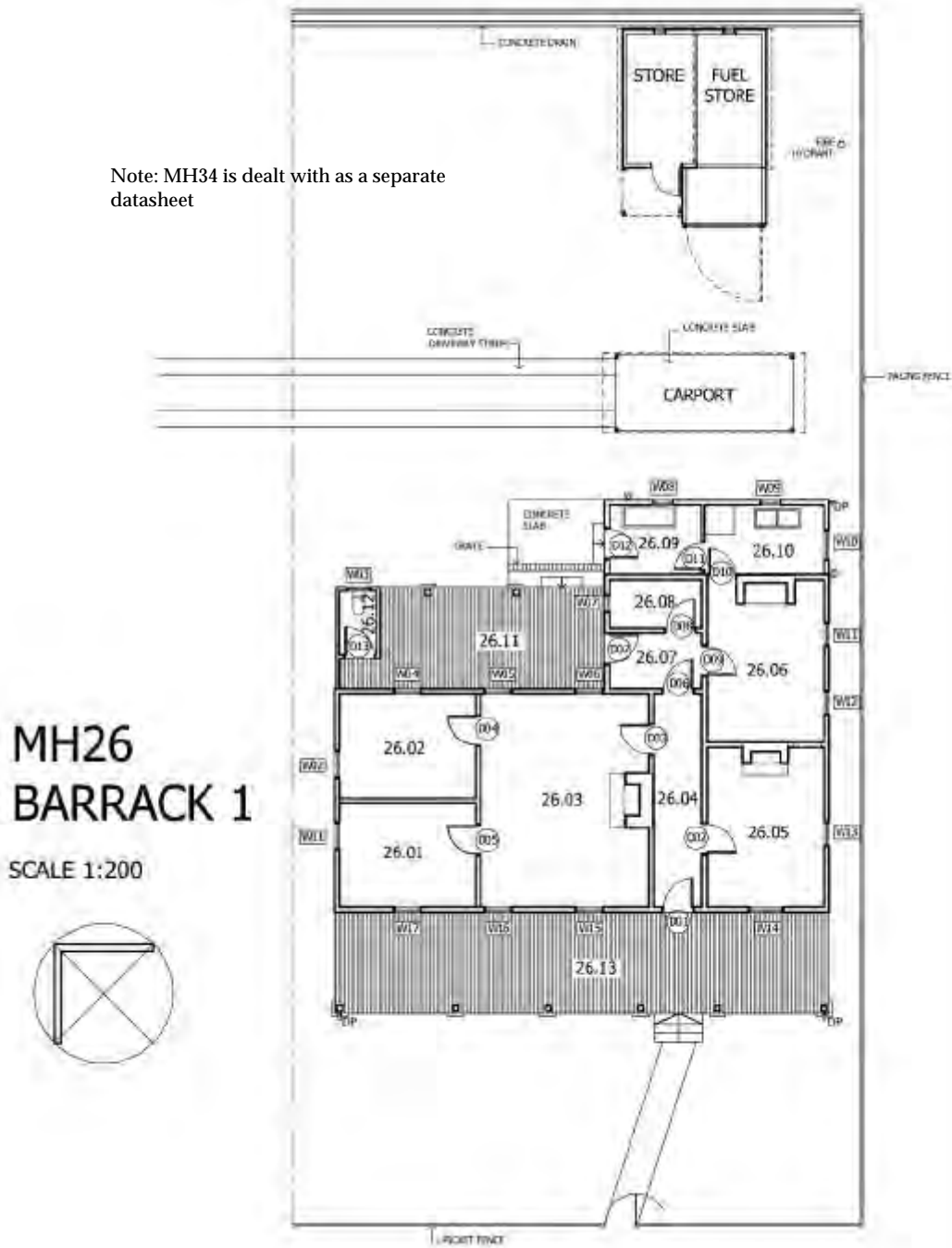


Fig MH26.8

Measured plan of existing building. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

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MH26

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Former Barrack 1

Other Reference Numbers

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MQ 134

PRE-CONSERVATION WORKS PHOTOGRAPHS



Fig MH26.9 The fireplace and chimney in 26.03 showing that the original finishes had been stripped to bare stone substrate. NPWS MAINTENANCE FILE F/590 - 2001



Fig MH26.10 The works uncovered a door to the laundry covered over by boards. NPWS MAINTENANCE FILE F/590 - 2001



Fig MH26.11 The works uncovered tightly spaced roof battens. NPWS MAINTENANCE FILE F/590 - 2001

BUILDING DESCRIPTION AND CONDITION

Description

The Former Barrack 1 has five main rooms, a corridor, stores room and laundry, bathroom and separate toilet. The walls are generally stud framed and timber lined internally and externally, with a corrugated asbestos lined hipped roof. The building has three intact rendered brick chimneys, each featuring substantial slabs of stone at the fireplace and mantle. The floors are of wide polished boards throughout, except in the later laundry and bathroom areas which have linoleum on concrete slabs. The ceilings are lined with the same boards as the walls, and most rooms have central circular vents with a mesh that is now largely painted over.

The L-shaped building has large verandahs to the front and rear, each with unfinished timber board floors and exposed timber roof framing and timber posts. The laundry, bathroom and verandah toilet cubicle are all additions, and the subdivision of rooms 26.01 – 26.03 is also an addition.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH26	Former Barrack 1	Site Plan: No. 10 MQ 134

The windows are 8 [*in total*] -pane timber double hung throughout; some have been replaced with later detailing. It would appear that some architraves have been replaced more recently with a very simplified version of the original moulding. The main door to the building is a typical Victorian 4 panel door, but all other doors throughout the original section are ledged doors. Most of these original doors have their original locks intact. The subdividing partition features two later doors, with three vertical panels, and the door that leads out to the bathroom additions is a modified 4 panel door with glazed infill. The bathroom doors are both hollow core, the external door is an imitation ledged door with a panel fixed to the rear.

The building has a relatively modern carport adjacent, and a quite lopsided shed to the rear.

Roof Framing & Cladding

Material: Timber framed hipped roof with corrugated asbestos sheet with asbestos capping, junctions and chimney sealed with lead. Roof pitch approx 30°. Simple fascia and small eaves in keeping with early-mid Victorian. Three simple brown face brick chimneys. Copper quad gutters and downpipes.

Verandah roofs are simple skillion set below gutter to main roof. Ends are treated with boarded valance. The verandah roof framing and underside of asbestos sheet is exposed. The verandah framing is a simple post and verandah beam system.

Condition: The roof and verandah are in a good condition generally. Recent conservation works have made repairs to timber framing. The roof sheeting is all intact and undamaged.

Floors

Material: Wide clear polished tongue and groove boards, approx 135x35mm. Inspection hole in Rm 26.02 – good sub-floor space and clear ventilation, sandstone sub-floor walls – airflow between bearers and joists. Flooring in Rm 26.07 is consistent with floors in main building, but set down approx 50mm.

Sandstone hearth in 26.03, 26.05 & 26.06. Some rendered toppings are chipping. Painted red in 26.03. Flush timber trims around hearths.

Painted slab floors in 26.09, 26.10 and 26.12.

Condition: Generally in good condition. Some areas have been spliced and filled. Small areas replaced in recent works, particularly in hall (26.04).

Walls – external and internal

Material: Predominantly stud walls with simple chamfered lapped boards externally and 6” (150mm) boards internally. The internal boards are horizontal and have a rounded type of v-joint. This is significant as it

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH26	Former Barrack 1	Site Plan: No. 10 MQ 134

occurs in other buildings on the site.

The partition alteration has vertical v-jointed 4" (100mm) boards. Corner moulds are approx 30mm scotia on new and old walls. The cornice is approx 60mm coved timber on old and new walls. The skirting is an 8" (200mm) simple lambs-tongue.

The chimneys are brick, thinly rendered and painted. The areas around the base of the fireplaces are made up from very large blocks of stone and have large stone lintels. The projecting stone lintel is a simple cyma-reversa with square cap. The fireplace openings are stop-chamfered and the edges have staff-moulds (except for modification in 26.03). The internal reveals of the hearth are rendered, but the back wall is face brick (except for 26.03, which is bricked up and rendered). Originally the brick was exposed at rear of chimneys in 26.05 & 26.06, but boards run across back of chimney in hallway (26.04).

An opening between 26.05 and 26.06 has been infilled with 6" (150mm) beaded boards, an early change to the arrangement.

The additions for bathroom and laundry (26.09, 26.10) are lined with FC sheet (possibly AC).

Condition: Internally the walls are in generally good condition, some areas showing previous finishes under the paintwork.
Externally the boards are generally in good condition but show signs of patching.

Ceilings

Material: The ceiling lining is the same board as used on the walls. Central vents with thickly painted mesh and moulded timber surrounds in 26.03, 26.05, 26.06 and cut by partition between 26.01 - 02. Access hole in 26.04. Ceiling mounted lights in 26.04, 26.07. Ceilings in 26.07, 26.08 match ceiling in main building.

Bathroom and laundry ceilings (26.09, 26.10) are FC lined soffit of skillion roof.

Condition: The ceilings are generally in good condition. The painting of the ceiling vents has made them largely inoperable.

Doors

D.01 is a typical Victorian 4 panel door with external bolection moulds. It has a modern rimlock. This door is an original door.

Doors D.02, D.03, D.06, D.08 and D.09 are also original, and are well finished ledged braced and framed doors. A ledged door was traditionally a sign of a utilitarian or service function, which is interesting on a Barracks building. All these doors (except

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D.02) retain early rimlocks, which may be original or an early Federation type. D.07 is a salvaged door installed in 2001.

Doors D.04 & D.05 are later doors in a style that was common in 1930s houses. The doors have three vertical panels with a high level door knob. The architraves around these doors are a simplified, but similar type to the early doors.

Door D.10 appears to have been a salvaged four panel door with the upper panels replaced with glass and rounded glazing beads. It is unlikely that this door originates from this building, or that the opening in what was the external wall is original. The frame is a makeshift arrangement and the threshold does not match the main floor. A concrete step with carborundum strips appears to be a recent improvement.

Doors D.11 and D.13 [check] are hollow core doors with high level door knobs.

Door D.12 is an imitation ledged door where it appears that lightweight ledges have been fixed to the outer face of a hollow core or framed door, with a panel on the back face. It has a modern rimlock.

Windows

W.01, W.02, W.04, W.05, W.06, W.11 – 17 are 8-pane timber double hung windows, most showing a Victorian joinery profile. Some windows have been replaced with a more bulky joinery detail (W.02, W.12, W.13 – check) that appears to date from the 1930s. It would appear that some architraves have been replaced more recently with a very simplified version of the original moulding. The locking devices also appear to be recent. A few of the windows were sticking from the paintwork, but most had a smooth operation.

W.07 is a fixed two pane window with the same simple surrounds as the main windows, and is thus original. This same detail is found on the rear shed (MH34).

W.03, W.08, W.09 and W.10 are all later openings with external architraves. W.03 introduces a ventilation system with two fixed obscured panes, whilst the others are framed like casements. A photo (Fig MH26.10) during works shows that a door was once located at W.10 and was boarded over.

Fittings

Room 26.03 has its fireplace blocked up and an enamelled metal burner has been installed in its stead. It appears to date from the 1950s.

The shelving units in 26.08 appear to be the original function of this room, and the diamond shaped cutouts in the wall indicate this may have been a food store.

The kitchen bench and accessories in 26.06 appear recent.

Electrical Fitout

The electrical fitout has largely been stripped out and replaced with modern fittings. Most power outlets are in the wall above the skirting, although some are in the skirting. The switches are all modern white plastic type.

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MH26	Former Barrack 1	Site Plan: No. 10 MQ 134

The main rooms have ceiling hung troffer fluorescent tubes, whilst the 26.04 and 26.07 have earlier ceiling mounted lights.

Plumbing and Drainage

The bathroom, laundry and toilet (26.09, 26.10 & 26.12) have largely remained as they were when first installed in the 1950s. The shower head over the bath has been altered and is in poor condition. The laundry retains its concrete tubs, although the washing machine and hot water unit has been upgraded. The toilet has a high level cistern.

Immediate Site Context

The building faces directly onto the entry to the site. The roadway forks around the building. A large stormwater pit sits in the apex of the triangle. This was blocked during our inspection and was causing the downpipes to block up and the gutters to overflow. MH26 has a low picket fence and tree to this façade, and a telegraph pole is adjacent the road to the west.

The south east edge of the building has a timber fence, which is in relatively good condition, although it has some areas slightly out of alignment. To the northwest a lightweight carport with a concrete strip driveway services the building. Further to the rear is the former Coal Store (MH34) that is half set into a rise in the land level, and has another tree nearby. A concrete drain defines this rear edge. A concrete pathway runs down the north west alignment.

There is a concrete slab to the immediate rear of the building.

HISTORICAL BACKGROUND

Barracks No1 (MH26) is probably the first building on site, tenders were called in 1875, and construction commenced and finished in 1876 (Wilson, 2.14). Its likely original function was to house a small permanent garrison of artillerymen whose duty was to protect the gun emplacements during times of perceived threat, and as accommodation for trainees during quieter periods. This would have remained its primary role while the site was an active fort, roughly until the end of WWI.

MH26 seems to have been converted into married quarters around the late 1930s. Subsequent upgrades and alterations, including the addition of a bathroom, toilet and laundry, were part of the post-WWII activity when housing shortages for returning soldiers created a flurry of activity on the Middle Head site. In some cases this resulted in a great deal of probably substandard temporary accommodation for permanent army staff, however MH26 remained a solid and apparently comfortable residence.

The building is oriented towards the main site entry and west across the site to Georges Heights, away from the large barracks building to the east. This highlights once again the role of all the buildings as additional observation posts.

Adjacent to the east of MH26 is a small weatherboard shed identified as MH34 - Coal Store, on the basis of the c1905 site plan (DHC FA 160 T40).

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MH26	Former Barrack 1	Site Plan: No. 10 MQ 134

STATE THEMES

Defence

Housing

DATING THE BUILDING

This building appears to be the earliest barrack on the site. *Wilson 1985* states that MH26 was completed by 1876. The 1903 List refers to Barracks 1 as being clad in metal walls and this does not appear to correlate with the early weatherboards on the structure. The internal linings of MH26 are identical to those in MH31 (c1892).

Assessing the correlation between the early building layout of MH26 and the description of Barracks 1 in the 1903 List results in a fair degree of agreement (see Appendix B). This means that there is either an error in the 1903 List reported wall cladding or that it has been changed to weatherboards post 1903.

The fabric offers some support for the latter option, as the windows and doors are not trimmed with architraves, as are all other weatherboard buildings on the site, but instead have a flush type of stop bead which may be a remnant from the iron cladding, or installed when the boards were installed. There is also no skirting mould, and the corner trims are bulky in comparison to MH30, where they would be expected to be more delicate. It is not possible to date when this may have happened, but it should be noted that the c1940 laundry addition to MH30 was able to source a similar weatherboard profile.

FABRIC CHANGES

Wilson 1985 refers to additions a year after construction in 1877. There is one early change to the fabric. A door between Rooms 26.05 and 26.06 beside the fireplace has been infilled with 150mm thinly beaded board partition, which appears to date from the Victorian period.

The recent conservation works uncovered a tightly spaced roof battening on this building (Fig MH26.11), similar to MH34, which is most likely to indicate timber shingles (or slate but this would be extravagant for the proposed use). These shingles had been replaced with corrugated iron before 1903.

The work records also note that there were copper flashings in the roof. The history of the roof covering appears to have been first; timber shingles, second; corrugated iron; and third corrugated asbestos roofing with lead flashing. None of these roof types would require copper flashing (although slate would justify it), and one would have been incompatible with it. It is thus uncertain why this was found in the roof.

If the *1903 List* wall cladding is correct then the external corrugated iron cladding was stripped and replaced some time after 1903. The stepped and trimmed junction with the toilet would encourage a pre 1950s date.

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From analysis of the fabric, a series of alterations appear to have been made in the late 1930s:

- The large dormitory (noted as a recreation room in 1903) was subdivided into three rooms (26.01, 26.02, and 26.03) with a partition clad in horizontal 4” (100mm) v-jointed boards. The doors have three vertical panels. The central partition runs across the centre of the ceiling vent.
- A number of the windows have been changed to a similar window typology as the original but with very heavy joinery that would fit a 1930s timeframe. These include W.02, W.11 & W.12.
- Most of the rimlocks are an early type, but D.02 has a slightly later one, which may date from the Federation period through to 1930s.

More significant alterations were carried out in the immediate post-war period, approximately 1950s:

- The roofing material was changed to corrugated asbestos roof sheeting for the main and verandah roofs
- The bathroom (26.09), toilet (26.12) and laundry (26.10) were added. This is in keeping with the transformation to Married Quarters; this building was referred to as MQ134. The toilet involved a small new concrete slab in the timber verandah zone.
- Door D.10 was cut into the exterior wall. D.10 is a four panel door modified to take glass in the upper two panels. The framing would indicate this was not an original opening
- The main fireplace in 26.03 was bricked up and an enamelled metal heater installed in front of it. Photographs from the recent conservation works show this chimney faced or constructed from small rough stone blocks. Whether this was original or the stop chamfered corners and staff moulds were stripped back in the 1950s is uncertain. The other fireplaces are intact.
- It is not possible to estimate when the central wall of the rear shed (MH34) was removed. As the immediate post war alterations were the most significant it is likely to date from this time. This alteration left the shed with no stability and it is slowly falling over. The shed appears to date from the original period of the building.

Subsequent changes are more difficult to estimate, but in the main they are minor:

- A large area of the exterior wall to 26.07 has been removed and infilled with a later glazed partition and door. This could date from the 1970s or 1980s.
- The carport dates from c1960-1970s, appearing on a 1978 aerial photograph.
- The kitchen fitout in 26.06 was installed in 2001. The boards indicate that this area was in relatively poor condition before the recent conservation works.
- The guttering and downpipes have been replaced in 2001 with copper.
- There have been substantial repairs to timber posts, external lining boards, verandah flooring, internal flooring, as well as general painting and

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improvements such as new lighting and electrical fitout. The chimney in 26.03 was rendered and painted. These would all be part of the 2001 conservation works.

STATEMENT OF SIGNIFICANCE

The earliest surviving building on the site, MH26 dates from before the influence of the British Military advisers in 1877. The building may have some historic associations with James Barnet, even though it has more of the characteristics of a standard military design. The building has aesthetic significance as vernacular weatherboard building with numerous elements that demonstrate its early construction date including the large stone slabs used for its chimneys.

Originally built as a dormitory with later uses including a recreation centre and married quarters, the building demonstrates the formal arrangement of the site in that it was designed to address the entrance to the site. The building is significant for its relationship to the history of the Middle Head fortifications, its very early fabric, and its site relationships.

POLICY

Potential Uses

RESIDENCE

Initially used as a dormitory type residence, then converted to married quarters, one compatible use for the building is residential. The building has kitchen, laundry and bathroom facilities, although the toilet requires external access. This is undesirable for contemporary residential use and modification may involve works that impact upon the significance of the building. The building is located at the entrance to the site with little opportunity for privacy and a potential for noise disturbance.

The building has some layout limitations for a residential use. Assuming 26.05 is the main bedroom with 26.02 and 26.01 as secondary bedrooms, the building has a sizable living area (26.03), a fairly isolated and inefficient kitchen that would need upgrading (26.06), a large pantry (26.08), no obvious dining space, a quite remote bathroom through the laundry, and an external toilet. It does have very generous verandahs (not accessible from rooms), a car space, and a shed.

OFFICES

The building could also be used for office accommodation. The laundry and bathroom would be largely redundant under this scenario. Adapting the building to this use would involve no change to the building.

CONFERENCE FACILITIES

A small meeting or conference facility is a possible use. A possible adaptation would involve removing the partitions in 26.01 & 2 and returning the space to a dormitory style conference facility. Other spaces could operate as office and service areas. Additional facilities may be required.

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VISITORS CENTRE / MUSEUM / NPWS SHOP / CONCESSION

The building could be used as the site's interpretation centre. Its location at the entrance to the site encourages this use. The main rooms that could form display spaces, offices or display storage facilities. The building incorporates amenities that could be available to the public. Disabled access can be provided from the rear verandah. For a larger display space, the divider partitions in 26.01-03 could be removed and the surfaces made good.

Elemental Analysis

The fabric elements contributing to an understanding of the building's cultural significance that are to be conserved include:

- The basic cottage and verandah form of the building
- The relationship to the Coal Store (MH34) and to the site entry
- Original stud walls including structure, lining, original windows and openings, original doors, remnant hardware and openings
- Stone sub-floor walls
- Original floor, verandah and ceiling framing and linings including trims and vents
- Verandah framing and valences
- Original structure and finishes of chimneys and fireplaces including hearths, mantle, chamfers and staff moulds, capping and lead flashing
- Roof framing, trims and soffits
- The beaded board infill between 26.05 and 26.06

The fabric elements that are less essential to the significance of the building, but do not detract from the significance that may be retained or removed include:

- Partition framing and lining additions in 26.01 & 26.02 including doors and trims
- External partition additions and 1950s bathroom, laundry and toilet fitout including windows and doors, partitions and roofs
- Concrete slabs associated with bath, laundry, toilet and external slab areas
- Corrugated asbestos roofing
- New copper rainwater goods
- Replacement window sashes and joinery trims
- Replacement verandah framing members
- Patching to flooring and external wall linings
- Front picket fence and side timber paling fence
- The enamelled heater in 26.03
- The fluorescent lighting
- The new switches and power outlets
- New door and window hardware

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- The kitchen fitout

The fabric elements that have some negative impact upon the significance of the building, but should only be removed if the selected use required it include:

- The infilling of the fireplace in 26.03 and the plastering over of the chamfered edges, stone slabs and staff moulds
- The carport structure between the building and the Cool Store (MH34)
- The shower head is in poor condition and the bath requiring replacement.

The fabric elements that are endangering or obscuring the significance of the building and need to be removed, repaired or upgraded in order to protect the building and ensure its ongoing use include:

- The main stormwater sump on the roadway at the axis of the triangle is blocked, and in heavy rain the downpipes fill up and water overflows the gutter line, damaging the verandah flooring. Suitable overflows that do not damage the building are necessary, as well as regular maintenance of the stormwater system.

Adaptation

The building can be utilised as it now stands without adaptation for either office, residential or interpretative uses.

For residential use, the relatively isolated bathroom and toilet are undesirable. The toilet could be relocated to 26.08 but this would involve removing an original part of the structure, and new plumbing works would have an impact upon the fabric. The change of level would also mean that it could not easily be connected to the bathroom (26.09). Room 26.10 could not be converted to a new bathroom without an airlock to the kitchen.

Upgrading 26.09 does offer some potential to include an internal toilet, but the room remains isolated and is not significantly better than the present arrangement. The bathroom is also a remnant of a change to the structure related to the history of the site, and whilst secondary, it should not be changed.

Immediate Site Curtilage

The fencing of the building offers a defined curtilage for the building, but the visual catchment of the building and its context is much wider. The building has a relationship with MH32 and MH30 emphasising the importance of the entry point, but its main relationship with the former MH27 and the associated road network has disappeared despite remnants of the road kerbing. The building has significance for its relationship to the entry, and because the roadways part around it.

The historical link with MH34 should always be emphasised. The carport is located in a somewhat undesirable location, despite being a lightweight and open structure.

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CONSTRAINTS

BCA Constraints

As a single storey building well separated from risks the type of construction required is the lowest, Type C. Nonetheless, the building is constructed from timber and as such is at risk.

FIRE RESISTANCE

The building complies with the requirements of Type C construction, as there are no requirements for any of the elements to have a fire resistance rating. The building would not comply if it were to be used for more than a single residence, as the separation would need to have a fire-rating.

Adequate warning systems for the type of use would be the main way of dealing with occupant safety in the event of fire.

Protection of the building itself in the event of fire could only be obtained through the installation of a sprinkler system. This may be considered extravagant for the type of structure, but the risk of a timber structure in the vicinity of natural bushland must be considered.

COMPARTMENTATION AND SEPARATION

As noted above, the building offers no compartmentation, and as such must not be used for more than one related function.

PROTECTION OF OPENINGS

There are no fire source features that would require the windows or doors to be protected.

EGRESS

The door swings do not comply, but the small size of the building would encourage a dispensation to be sought, rather than attempt to change significant fabric within the building. The building provides a high level of egress, has few occupants each of whom are familiar with the building, and the doors are likely to be kept open in most cases. The egress is in keeping with the use of the structure.

The main external locks appear to be a deadlock type of rimlock. These locks need to provide continuous egress at all times from the interior of the building and should be changed if this is not the case. The historic rimlocks on the majority of the doors are acceptable as long as they cannot be locked.

ACCESS FOR DISABLED

It would be relatively difficult to provide equitable access to this building. As it presently stands, this requirement only applies to publicly accessible buildings. If this building were to form part of the interpretative response to the site, then it would be required to be accessible.

The simplest way to do this would be to install a small ramp to the verandah (26.11) that seems to be the main entrance despite being to the rear of the building. Small

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ramped thresholds would then be required at each slight change of level. In the main, the doors are in keeping with the requirements of AS1428.1, but some areas of the building might not comply.

FIRE SERVICES

The building, if used for residential purposes, would require a smoke detection system throughout. This would be advisable on many levels, including providing early warning of potential damage to the building.

As the electrical system has recently been upgraded, the fire threat to the building has diminished. Under these circumstances installing a sprinkler system may be unwarranted. However, the likely retention of the asbestos roofing adds another dimension to the potential damage to the site in the event of fire, and this may encourage a more comprehensive approach to fire safety on the site.

AMENITY ISSUES

Each room is adequately sized, ventilated and lit. The sub-floor space and ventilation is adequate. The roof is intact and weather tight. The blockages to the drainage need to be addressed.

SPECIAL USE REQUIREMENTS

The building is unlikely to fall into this category.

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MAINTENANCE ASSESSMENT

Urgent Work: 0-1 year

- Clear out main stormwater pit at apex of roadways and clear downpipe on south corner of MH26.13
- Provide overflow to protect building fabric from damage when downpipes are full
- Make sticking windows operable
- Check external door locks for compliance with egress provisions
- Vermin proof building, including chimneys

Medium Term Work: 1-3 years

- Replace shower head
- Strip paint from ceiling vents
- Sand and paint damaged wall lining boards in kitchen
- Recommend smoke alarms for building
- Consider sprinkler system for building.

Long Term Work: 3-5 years

- Repair external timber wall boarding and treat exposed ends for weather proofing.

Optional Interpretative Works

- Reinststate original edge treatments (chamfers and staff moulds) to fireplace in 26.03. The edges should match those in 26.05 & 06.

Cyclical Maintenance

- Clean down external timber elements every year.
- Paint external timbers every 7 – 10 years – ensure sufficient time to allow double hung windows to dry without sealing shut. The building was last painted in 2001.
- Clean gutters every three months.
- Clean windows at six monthly intervals.
- Inspect building for termite activity every six months.
- Check downpipes for blockages annually. Water seepage can be the most destructive element to building materials.
- Clean clear finished timber annually. Refinish trafficable timber surfaces with tung oil every two years, with increasing frequency for high traffic areas.

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LOCATION PLAN



Fig MH29.1 Site Plan showing Officer's Quarters relationship to Middle Head Barracks Precinct. Based upon survey drawing CEN 1515 - 1960 and overlaid with aerial photograph and site measurements- PAUL DAVIES PTY LTD 2002

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PHOTOGRAPHS



Fig MH29.2 The front elevation of MH29 looks across Cobbler's Beach to Hunter's Bay. The proportioning and style has a strong sense of Victorian Regency, and the central stone steps complements this appearance on a steeply sloping site.

PAUL DAVIES PTY LTD 2002



Fig MH29.4 A corner view showing the more recent infill of the verandah, and the relationship of the defensive wall to the basement stonework.

PAUL DAVIES PTY LTD 2002



Fig MH29.5 Side view showing the 12 pane windows in a weatherboard wall on the roughly coursed stone basement wall. The eaves have been reclad, but retain the original form. PAUL DAVIES PTY LTD 2002

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Fig MH29.6 Side view showing the southern kitchen addition. The stonework is distinct, but still of a high quality, and the window is a salvaged 12 pane original window. PAUL DAVIES PTY LTD 2002



Fig MH29.7 View along main balcony from external stairs. At the distant end of the verandah is the more intact early screen wall to protect the verandah. PAUL DAVIES PTY LTD 2002



Fig MH29.8 View of southern kitchen/laundry addition showing one salvaged window and one later window. PAUL DAVIES PTY LTD 2002



Fig MH29.9 In contrast with the earlier kitchen addition, the later kitchen has later window openings and a flatter roof pitch. The left window appears a remnant from its bathroom use. PAUL DAVIES PTY LTD 2002



Fig MH29.10 Entry to southern unit showing lattice and dividing fence. PAUL DAVIES PTY LTD 2002



Fig MH29.11 Mass concrete infill with loopholes. PAUL DAVIES PTY LTD 2002



Fig MH29.12 Basement walkway showing stonework and floor structure. PAUL DAVIES PTY LTD 2002

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Fig MH29.13 An original French door opening onto the enclosed verandah.
PAUL DAVIES PTY LTD 2002



Fig MH29.14 A French door and transomlight showing intact hardware.
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Fig MH29.15 A rendered chimney with white marble fireplace surrounds. Note later picture rail and ceiling with timber trims.
PAUL DAVIES PTY LTD 2002



Fig MH29.16 The moat and defensive wall. This area is the only area where the moat is open. The area needs some clearing of vegetation.
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Fig MH29.17 Stone wall requiring some level of repointing. PAUL DAVIES PTY LTD 2002

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Fig MH29.18 Interior of enclosed verandah showing flooring and ceiling soffit boarded lining. The partition at the end is a later enclosure.
PAUL DAVIES PTY LTD 2002



Fig MH29.19 Fireplace in 29.03. The original fire insert and surrounds have been modified to c1930s stone facing.
PAUL DAVIES PTY LTD 2002



Fig MH29.20 External stairs showing corrosion damage to wrought iron and subsequent cracking to stone treads.
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HISTORIC PLANS



Fig MH29.21 Officer's Quarters on 1939 plan. The building was in use as an officer's quarters until the war. The sketch shows the front stairs, but is less precise about the rear configuration. NAA SP 857/3 PC/397

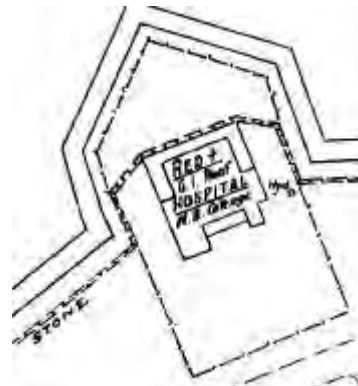


Fig MH29.22 Officer's Quarters on undated plan that is identical and appears the basis for Wightleys 1942 plan. The kitchen extensions are indicated, and the bathroom proportion has been extended. The building was used as a Red Cross Hospital during WWII.
MIDDLE BATTERY FORT RECORD BOOK

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DRAWINGS

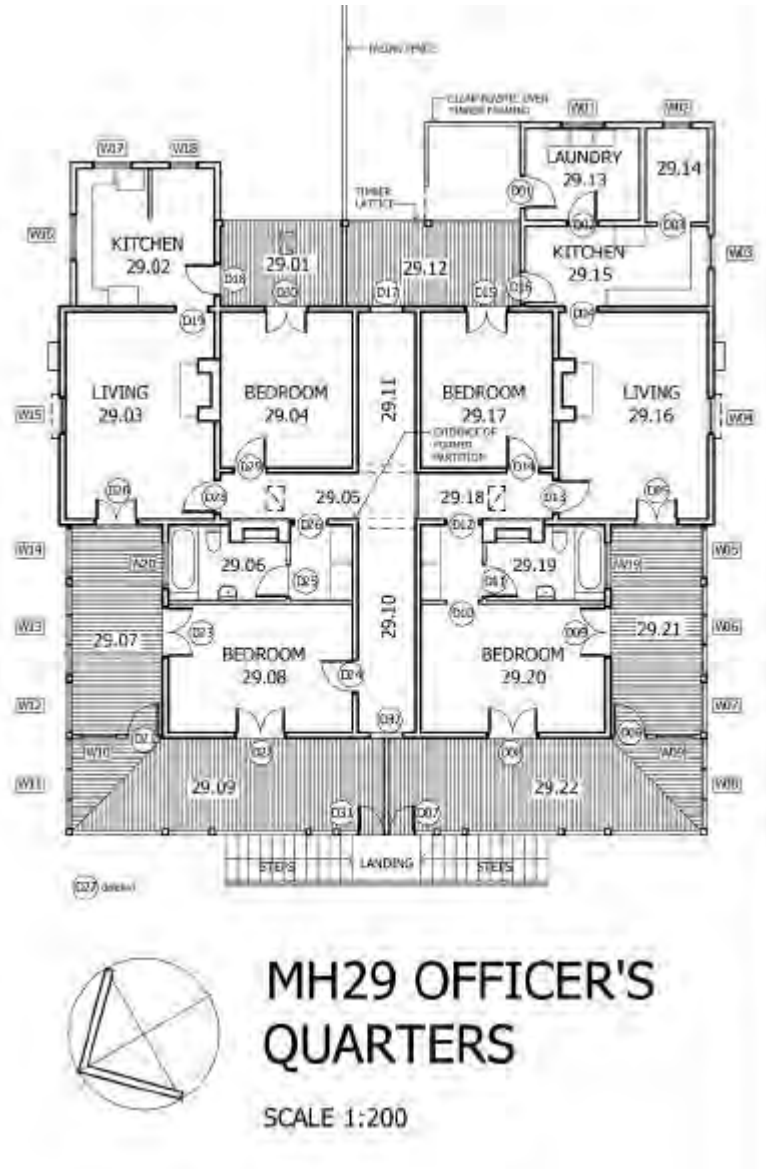


Fig MH29.23 Plan of existing building. The rear kitchen wing has been demolished and the building subdivided into two residences. Drawing based on site notes and drawing CEN 382 dated May 1955.

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MH29 OFFICER'S QUARTERS - Basement

SCALE 1:200

Fig MH29.24
May 1955.

Plan of existing building basement. Drawing based on site notes and drawing CEN 382 dated

BUILDING DESCRIPTION AND CONDITION

Description

The former Officers' Quarters is presently a duplex housing two NPWS staff. Each residence consists of a living room, kitchen, two bedrooms (one with ensuite), and a common laundry. The building has a substantial balcony to the north and west, some of which has been enclosed as sunrooms. There are small additions to the south east façade. Due to the fall in the land to the north west, the building is built up on large stone piers, and has a stone walled basement storey of two rooms, used as stores. A monumental stone twin stair forms the main element on the north west façade. A fortification wall runs along this façade and extends away in both directions. The moat also runs around the building, projecting out to the north west to enclose a small front lawn.

The building is a weatherboard clad building on a rough coursed stone base, almost Mid Victorian Regency in its simplicity. It features early joinery elements such as French doors and twelve pane double hung windows. The roof is relatively steep (about 35°), now clad with corrugated asbestos sheet, in a tight u-shaped hip arrangement that results in a central box-gutter. The chimneys are very simple, rendered, with terracotta pots. The eaves are narrow and boxed with quad guttering.

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The verandah roofs are a lower pitch, also hipped, with boarded soffits, paired stop-chamfered verandah posts and beams, and thin wrought iron balustrades.

Internal doors are largely four-panelled with some hollow core. The chimneys are rendered with staff moulds. One fireplace surround is in marble, the other modified to a c1930s stone facing. The two remaining fireplaces have been covered over. The ceilings are generally AC sheet with decorative timber trims. There are no cornices, and a simple picture rail has been installed in the main rooms. The flooring is timber throughout, some rooms finished with black japan, others with resilient flooring.

Roof Framing & Cladding

Material: The main roof, verandahs and extensions are clad with corrugated asbestos roofing and capping. Some junctions and chimney flashing are in lead sheet. The most recent kitchen (29.02) shows evidence of a steel sheet capping extension in the roof.

The roof framing is likely to be traditionally framed in timber.

Guttering appears to be painted galvanised steel throughout, with downpipes in PVC. The eaves are boxed and lined with FC sheets with vent holes. The fascia is not profiled, indicating it is not original.

The verandahs are timber framed with stop-chamfered beams and posts. Each has timber board lined soffits with the exception of 29.01, which is lined with masonite.

Condition: The roofing appears to be in generally good condition, but some areas of extensive flashing may indicate repairs.

The guttering has failed completely in some areas. Some downpipes are non-continuous and do not discharge directly into a stormwater system. If the box-gutter is made from galvanised steel, this is a concern, as failure would cause significant damage to the building.

The eaves soffits are stained and discoloured, but otherwise sound. The south east corner of Room 29.13 shows a significant settlement, evident in the fascia and in the hip capping. Cause and extent of damage unknown.

Generally the verandah framing and linings condition is good.

Floors

Material: The flooring in the upper level of the main building is timber boards, finished with black japan in bedrooms.

The bathroom additions (29.06 & 29.19) have tiles on a *magnesite* substrate laid directly over the boards and as such are a step up.

The kitchen and laundry additions (29.02, 29.13-15) are shown as timber on new slab substrates in the drawings. The kitchens are lined with linoleum.

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The verandah flooring is a thinner timber board, as an exposed timber they have almost certainly been replaced as they would be over 100 years old.

The basement flooring appears to have been stone slabs without falls. A mortar topping has been installed with some falls and water channels, with limited success at drainage.

Condition: The general boards appear in good condition throughout.

The condition of the flooring under the bathroom additions could not be determined. The bathrooms have been leaking, and this may have damaged the boards.

The verandah flooring appeared intact and in good condition. Some window leaks (29.22) may have damaged the flooring.

The basement mortar screeds have some cracking and damage.

Walls – external and internal

Material: The main building and the kitchen additions are clad in timber weather boards. The original structure sits on top of a thick rough coursed stone wall and piers. The junctions to the additions are clearly defined, but closely matched. At the edge of the basement the stone foundation walls and the mass concrete embattlement walls intersect. The large stair to the north west is supported on rough coursed sandstone walls. Verandah infill panels alongside 29.21 & 29.22 are constructed of AC sheet spandrels. The corresponding section in 29.07 and 29.09 is framed with vertical timber boards. Both verandahs are enclosed by a AC lined partition.

Internal walls are smooth finished and could possibly be a lathe and plaster type finish. Alternatively they may have been changed in c1920s –1930s to an early type of fibrous plaster (the latter is more likely as the walls are very regular). A shadow of dado panelling is evident in the hallway areas, and in parts of 29.06. New partitions such as the bathroom additions are lined with AC sheet and have a sharper tone when tapped. A picture rail has been introduced to most rooms. Skirtings are a simple lambs-tongue mould.

The chimney in 29.16 remains in original condition rendered and painted with marble fire surrounds and mantle and staff moulded edges. The corresponding fireplace in 29.03 has a stone facing (c1930s) and the chimney staff moulds have been removed below the picture rail. The two fireplaces in 29.06 and 29.19 have been covered over.

Condition: The external weatherboards show some signs of deterioration, particularly on the south sides of the building. The kitchen additions show some significant misalignment of boards.

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The stone walls and piers are generally in good condition, but there are some very fragile blocks in the basement walls, particularly at corners and near openings, where the original surface has been completely removed and the face is very soft. There are also numerous areas around the base of the wall and in areas where downpipes have failed that require some repointing to protect the stone surface.

There is one crack in the basement wall that seems related to a crack in 29.18 upstairs. The moat may have undermined the foundation, or it may have a more recent cause.

The internal walls appear generally in good condition.

Ceilings

Material: The ceilings are generally AC or fibrous plaster sheet with decorative timber trims. There are remnant original ceilings in 29.04 and 29.17, which are lathe and plaster with set corners. Room 29.03 has a Wunderlich pressed metal ceiling (common c1890-1920s). The kitchen has a masonite ceiling. Hallway 29.10 has a c1940s plasterboard ceiling. There are generally no cornices except in 29.03 and 29.10.

Condition: The ceilings are generally in good condition with the exception of the masonite in 29.01 and 29.02, which is severely degraded from water damage.

Doors

Doors D.01, D.02, D.33 & D.34 (and likely D.18) are all original ledged and braced doors. D.01 & D.02 have been salvaged from either the original bathroom or the separate kitchen wing and reused in the c.1905 kitchen. They retain their original rimlocks. Doors D.33 & D.34 are basement doors with observation holes and new rimlocks.

Doors D.03, D.04 & D.19 are later openings; none have a door leaf. D.19 was cut into the original external walls to access the 1955 additions. D.03 is shown as existing in 1955. D.04 may be as early as c1905, but is more likely a 1955 opening.

Doors D.05, D.08, D.09, D.15, D.20, D.22, D.23 & D.30 are original Victorian French doors with mortise locks (most intact). All but D.05 and D.20 have transom lights (due to position of verandah roof). The original transom lights have three panes, but D.09 has been changed to a four pane with different glazing beads. The 1879 drawings show timber shutters to the French doors, some of these are still extant. Some remnant hardware exists on the wall surrounds.

Door D.16 is an odd opening, an original door position in 1881, the 1955 plan shows that (c.1905) a chimney was installed in this location, blocking up the door. When this was removed in 1955 a new opening was cut and a new door installed.

Doors D.06, D.10, D.11, D.21 & D.25 are all openings in 1955 or later partitions. D.06 and D.21 are c1960s flush doors in the verandah enclosure. The leaf of D.10 has since

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been removed, but it features salvaged architraves, possibly from the original hallway door. D.11 and D.25 are both flush bathroom doors.

Doors D.07, D.31 are timber picket gates to the stair landing. This verandah division occurred after 1960.

Doors D.12, D.14, D.24, D.26 & D.29 are original Victorian four panelled door openings with mortise locks. D.12 and D.26 have had their leaves removed.

Doors D.13 and D.28 are original four panelled doors with the upper panels glazed. D.28 remains in the original condition with old glass and mouldings. D.13 has been reglazed c1955 with non-original mouldings.

Doors D.17 and D.32 are the original front and rear doors of the building. D17 is an intact four panelled door with external bolection moulds and a three paned transom light. D.32 was identical, but whether it survives since being blocked up (post 1960) is unknown.

Windows

The original building had few windows as it was surrounded by two verandahs and utilised French doors instead. The original windows were twelve-pane double hung (in keeping with the Victorian Regency style) and now only appear in their original locations at W.04 & W.15. The bathrooms and separate kitchen wing also had these windows, and W.01 and W.03 have been salvaged from one of these locations for reuse in the c1905 kitchen wing. W.01 and W.03 have since been modified unsympathetically by blocking up the lower panes to allow the installation of sinks and allowing for a dryer exhaust. W.03 has an external flyscreen c1955. Both are in need of repair.

Windows W.02 & W.18 appear to be of the same date by the similarity in their external architrave. W.18 dates from the bathroom extension (hence the louvres) but is much later than 1905. It is difficult to nominate a period, but would post-date the 1930s changes and predate the 1955 changes (see changes to fabric). Thus it probably coincided with the changes to the roof c1950.

The screens to the sides of the verandah are likely to have been installed in the 1930s, primarily due to the type of windows installed along the sides of 29.07 & 29.09 (W.11 – 14 – sliding six pane sashes). A similar set were most likely installed along the south-west face (the main wind direction) but have since (c1960s) been completely changed. The present set of windows includes two single pane fixed windows (W.05 & W.07), a group of three awning windows (W.06), and a group of six awning windows (W.08). The windows on this side are in relatively poor condition.

The two c1960s partition verandah enclosures include fixed pane windows (W.09 & W.10).

Windows W.16 & W.17 are c1955 double hung windows in the kitchen addition.

The windows to the bathroom additions (W.19 & W.20) are fixed panes.

Windows W.21 & W.22 are grouped casement windows that date from the 1955 bathroom additions.

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Fittings

The bathrooms, kitchens and laundry fittings all date from the 1955 alterations. The 1955 plans describe the bathroom tiling as sitting on the existing flooring on a substrate of *magnesite*.

The only note on condition is that the bathroom has a leak, presently repaired temporarily by silicon sealant. Otherwise the amenities are relatively intact and operable.

Electrical Fitout

The electrical system is an early type, possibly dating from the 1955 changes. Due to the potential danger from early circuits, these should be fully upgraded.

Plumbing and Drainage

The building has large cast iron plumbing pipes serving the two internal bathrooms, which are exposed in the basement and runs alongside the stone foundation walls to a sewerage connection under W.03. It is assumed that the kitchens and laundry are also connected to this point.

The slope of the ground greatly assists drainage around the building, but the stone walkway under the building (Basement 29.25) suffers from ponding due to poor falls.

Immediate Site Context

The building is one of the few points on the site at present where the moat and defensive wall is exposed. It is open from the return at the south west of the building to a point approx north west of the building. The next section has been back-filled during the military demolition period of 1979-1980. The wall has sandstone and mass concrete sections.

The moat (and a picket fence) encloses a flat grassed forecourt that was most likely intended as a recreation area for the officers. This area has pathways that once led across a bridge over the moat, down the steep slope to meet up with the roadway to Cobblers Beach. A large coral tree has fallen over (2001) and been removed from the area in front of the stair. The replacement eucalypt is not an appropriate cultural planting and is located too close to the building and the moat structure.

STEPS

The external steps up to the verandah are an important early element in the building, designed to be a feature of the main façade. The steps are formed from solid sandstone and span between two stone walls. A wrought iron balustrade was fitted in lead pockets approx 75mm from the edge of each tread. The rusted balusters have already broken the bottom treads of both flights and will do the same to the remaining treads if not replaced with a more suitable fixing or material. One of the treads on the northern flight has broken in half; otherwise the treads are in good condition.

The wrought iron balustrade has begun to rust and discolour, but will continue to be serviceable if a method of fixing can be determined that will not damage other fabric elements. It is however unlikely to be high enough to comply with the BCA

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requirements. The spacing between balusters will not comply if it is 125mm or greater.

HISTORICAL BACKGROUND

The Officers Quarters (sometimes incorrectly referred to as the Governor's Cottage) was clearly designed to be the most substantial building on the site. While the building envelope is of a single building, the internal symmetrical layout shows that it was designed for two officers living separately. Each living area had a bedroom, a living area and an office (with a glazed door).

The building has been a residence for most of its history, although during WWII it was described on plans as a Red Cross Hospital. It appears that it also served as Australian Women Army Service quarters during the latter part of the war and was one of the last buildings vacated by wartime personnel.

Its conversion to married quarters seems to have occurred post-WWII (1955) whilst most other structures had already been converted by 1939.

The building's orientation, with the 'front' or main entrance facing outwards from the site north over Cobbler's Beach towards Hunter's Bay and Balmoral is also significant, the building is likely to have served as an important observation post, and since it was Officers Quarters, there would have been a natural tendency for the occupants to remain apart from the enlisted men or volunteers occupying the other buildings.

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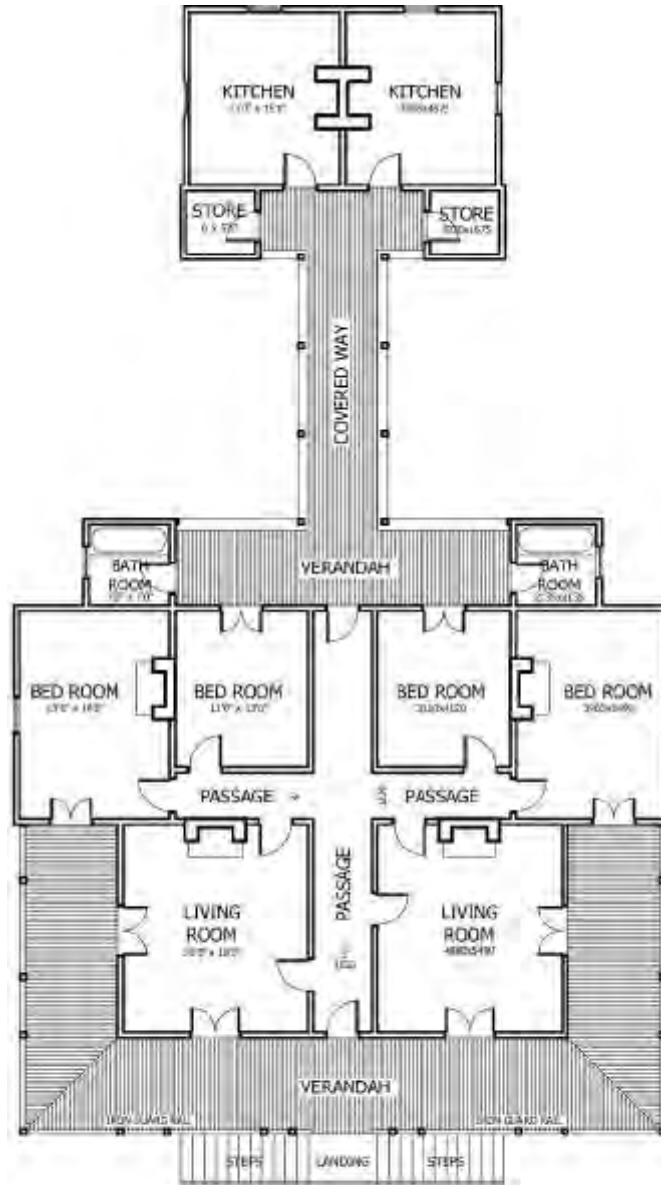
Building Name:

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HISTORIC DRAWING



MH29 OFFICER'S QUARTERS - 1879

SCALE 1:200

Fig MH29.25 Plan redrawn from plans of James Barnet dated 1878 showing original arrangement of the Officer's Quarters. Whilst designed as one building the symmetrical layout is intended for two or more occupants. The rear kitchen wing was necessary due to lack of refrigeration. DRAWING 2/1530/29533

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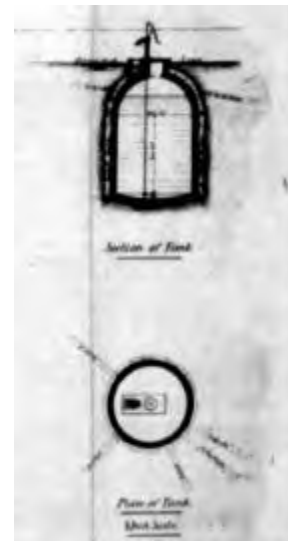
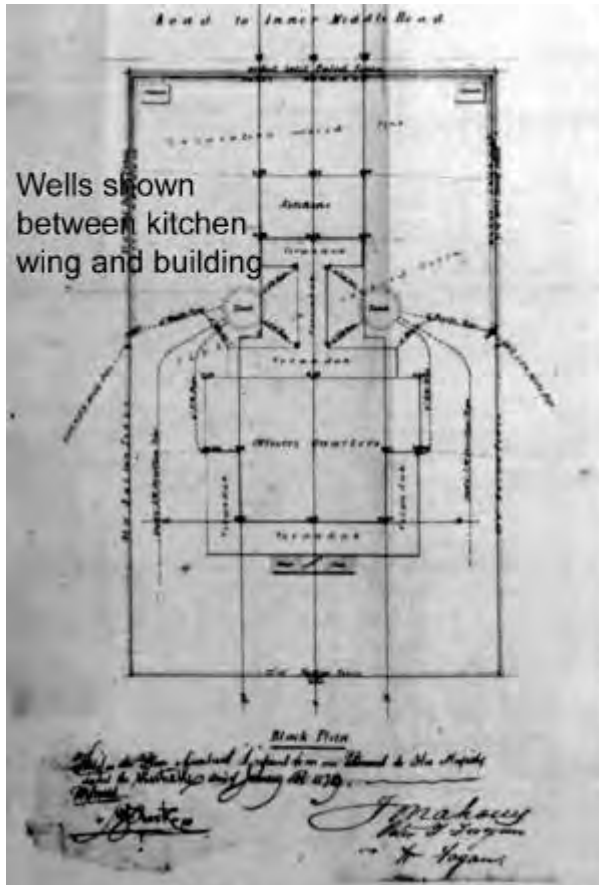


Fig MH29.26 Details from plan showing water tanks. VBM 1528/295 33

STATE THEMES

Defence

Housing

FABRIC CHANGES

1878-1881

James Barnet's plans for the building (1530/29538 – redrawn as Fig MH29.25 above) are dated 1878 and *Wilson 1985* states that the building was completed before 1881. The building has undergone numerous changes since.

The mass concrete walls with 'loop-holes' were an early addition (c1881) based on the recommendations of Jervois. They do not appear on Barnet's 1878 drawing. The 'mass concrete' in the immediate walls appears to be a concrete matrix with significant amounts of brick or sandstone rubble.

Barnet's plans seem to indicate slate roofs for the building. It is likely this was never carried out (as slate would be unlikely to have needed replacement at the end of WWII) and the building was originally clad with corrugated iron roofing.

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1895-1910

The first period of alterations falls somewhere around the turn of the century (between 1895-1910), most likely shortly after 1900 and possibly corresponds to the handover to the Commonwealth in 1903 and a subsequent change of personnel. This date is based upon fabric analysis; the earliest documentation related to this is *Wightley's 1942* site plan (MIDDLE BATTERY FORT RECORD BOOK). The stone base wall addition is an early type of wall, the new wing salvaged existing windows and doors, the eaves and roof were constructed with identical details as the original, but the internal linings were now v-jointed boards (indicating post 1900).

- The kitchen block and stores were demolished c.1905 (the *1903 List* - Appendix B, refers to the outhouses still existing, this may refer to the kitchen block or to the toilets).
- A new single kitchen (29.15), pantry (29.14) and laundry (29.13) were installed. This indicates that the building was no longer occupied by two officers, or that the two officers now shared the one facility (the former is likely due to corresponding change to bathroom).

It also indicates that the need to separate the kitchen wing had become redundant, possibly due to refrigeration or perhaps reduced fire risk. A 1955 plan (CEN 382) indicates that this kitchen included a new stove and chimney, which enclosed what was the opening (now numbered D.16) and largely obscured door D.15 but did not remove it.

- Later plans show the bathroom (approx 29.02) was extended in a south-east direction first, and this change is likely to correspond with the change to the kitchen. This extension would have allowed toilet and basin facilities to be installed with the bath.

1910-1935

The original lathe and plaster ceilings were largely removed and replaced with FC sheeting with timber trims. This style was common in the late twenties and early thirties. An original ceiling remains in 29.17.

The internal wall linings may have been stripped at this time and replaced with an early form of fibrous plaster sheet. Originally they were most likely boarded or lath and plaster. It is not possible to determine the present wall lining material without cutting into the wall, but the regularity would favour fibrous plaster sheets. A picture rail was installed. The hallway dado panelling was most likely installed at this time, although the shadow extends to one area on a 1955 partition.

The fireplace in 29.03 was stripped and replaced with a small block sandstone facing. The staff moulds were removed, but only up to the picture rails.

A minor change to the French-door transom lights occurred, the original have three panes, but D.09 has four.

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1935-1945

The next period of change occurs around the late 1930s period. A glass wall on a boarded spandrel shielded the north-east and south-west balconies from wind and rain. This may have coincided with the change of use to a hospital.

It is uncertain when the building was transformed into a Red-Cross hospital, but it is likely to have been after the beginning of WWII. An undated site plan (Fig MH29.6) that nominates it as such (MIDDLE BATTERY FORT RECORD BOOK) is an identical tracing to *Wightley's 1942* site plan and must be of a similar date. This plan nominates the roofing as being of galvanised iron. As the layout was ideal for a hospital, little change to the plan was made. Subsequent drawings indicate that windows W.01 and W.18 were installed before 1955.

1945-1955

The steel patching of the lead hip capping detail on the extension of Room 29.02 indicates that the corrugated asbestos roofing predates the 1955 extension, and is thus likely to have been in the early post-war period after the relaxation of rationing (1949-1955).

The 1955 alterations were the most substantial change to the building. The building was now converted into two residences and called MQ 9a & 9b.

- The fireplace to the kitchen (29.15) was demolished and a new door (D.16) installed. Door D.02 was meant for removal, but survived.
- The kitchen fitout (29.15) was installed
- The bathroom was stripped and extended to form a kitchen (29.02) with new fitout and slab floor. Door D.19 was introduced.
- The porch divider was installed (29.01, 29.12). It is possible that the timber lattice was installed at this time.
- The drawing shows that the hallway was divided up. A new partition created stores and separated 29.05 from 29.18 (the stores partition was either never installed or subsequently removed). The original door between 29.05 and 29.20 was blocked up. Door D.13 was reglazed and the glazing beads replaced.
- The door from D.12 was salvaged and re-used in D.10 (subsequently removed), the opening remaining. For some reason the original opening at D.26 needed to be opened up again (perhaps blocked up for the hospital).
- The bathrooms (29.06 & 29.19) were installed. This involved new partitions, a *magnesite* topping over the timber floors, the blocking up of the fireplaces, and a bathroom fitout with tiles, bath, WC and basin. Windows W.19 & W.20 were introduced. The new partitions were installed hard against the French doors D.09 & D.23. *Magnesite* has since proved to be a problematic material, particularly against steel, and inadequate water-proofing in the alteration has resulted in a bathroom that leaks. This has been temporarily repaired with silicon sealant, but a long term solution is required.

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1955-present

Subsequent changes have been relatively minor:

- A detached plastic sheeted cover has been installed adjacent the entry as a vehicle shelter (2001).
- The original enclosure of the verandah (29.21) has been changed to a c1960s type partition with external AC sheeting, mismatched timber windows, internal plasterboard and a hollow core door. The alteration does not appear as significant in 29.07, although it has also been enclosed as a room.
- The main passage door D.32 has been blocked up and the verandah divided by a partition with separate picket gates to the stone stairs. This could have occurred at any point after 1955. Door D.17 is also no longer in use.

STATEMENT OF SIGNIFICANCE

MH29 – The Officer's Quarters is the most impressive and substantial building in the Middle Head barracks area. Designed by James Barnet in the Victorian Regency style, the building was a rare departure for Barnet in its style, its weatherboard cladding, and in its residential use. Set on a solid and quite high sandstone base, the building was the command centre of the military barracks, and like other buildings on the site, demonstrates the surveillance function of looking out to the harbour.

The building is a response to the influence of the British advisor Jervois, and its siting, function, and incorporation into the defensive wall and moat structure is a direct result of his intervention. Its construction is at the beginning of the substantial building phase that resulted from the advice of the British military experts. The Officer's Quarter's does not have any comparable structure at Georges Head, and may reflect a separation of the military hierarchy that was outmoded by the late 1880s.

The building is well constructed, largely intact with numerous early features and details.

POLICY

Potential Uses

RESIDENCE

As Officer's Quarters the building has historically been in use as a residence for the commander of the site. Its transformation into Married Quarters continued this use. The building has thus only had small periods of use in its history other than residential.

Attached residences

The current use of the building is as two attached residences.

This use does not comply with the BCA in terms of fire separation. As a Class 2 building, the wall between the units needs to have a 60/60/60 FRL, which would require one layer of 16mm fyrecheck or equivalent lining to the existing timber stud walls. The existing finish is unlikely to comply with this requirement. The existing

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lining would either need to be replaced or a dispensation agreed by a certifier. This wall would also need to extend to the underside of the roof as a fire separated barrier. The works to achieve this would be undesirable in conservation terms.

The residences currently demonstrate that they are able to operate as staff residences. A residential use contributes rental revenue to the Service. A residential presence on the site also provides occupancy at night, which offers security benefits.

Retaining the two residences in the building retains the alteration made to the building in 1955. They have confused the building's layout and significantly impact upon its appreciation. This is seen in the plan arrangement, the central cruciform hallway is broken up into four non-connecting service rooms and circulation must traverse the main rooms instead of flowing naturally through the corridors. Both natural entry points of the structure are blocked up. The main rooms of the building (29.08 & 29.20) are largely cut in half by the bathroom additions, the partitions installed against the French doors. The bathroom floors are poorly waterproofed against the strict standards of bathroom design today, potentially causing damage to the flooring boards. The floor tile substrate *magnesite* is a material that has proven to be inappropriate for wet conditions, and has been found to cause damage to steel, although there is no structure at risk in this circumstance. The open verandahs are partially enclosed.

The 1955 alterations adversely impact on the building in its understanding and in its physical fabric. Recovery of the original layout of the building would be desirable.

A private use for the building will limit its interpretative role on the site to the building's exterior.

One residence for more than one unrelated persons

At 210m² the building can be considered a Class 1b structure if the corridors were opened up. This will allow unrelated persons to live in the building without requiring fire isolating construction.

It would not require the removal of the bathrooms from the bedroom areas. Returning the building to its original configuration (or close to original) has clear conservation benefits for the building.

One residence for related persons

Converting the building to a single residence would allow it to be a Class 1a building, and would largely be similar to the above scenario. It would require the opening of the hallways, but may also offer the potential to remove one or both of the bathrooms to return the rooms to their original configuration.

The resultant building would have three bedrooms, three living areas, and two sunrooms (along with two kitchens and one small bathroom).

OFFICES

The high standard and importance of the building, with its original configuration, makes it a suitable building for adaptation to office type use.

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The building not only has a high quality of accommodation, but also has the symbolic quality of being the recognisable focus of the precinct. This is largely the role the building played in the military camp throughout its history.

Possible adaptation requirements would be upgraded toilet facilities and some level of restoration of the building's original configuration. The use limits public access to the exterior.

CONFERENCE FACILITIES

A meeting or conference facility is a possible use. This would encourage the opening of the hallways and the removal of the bathrooms in order to improve access and accommodation potential. The resultant building would provide six meeting rooms, each with independent access from the hallways. The enclosed balconies could be used as additional spaces, or be opened up to verandah spaces. The basement could provide storage facilities. Office and service areas could work concurrently with this use. Additional facilities may be required, such as toilets.

Conference facilities offer the potential to provide revenue for the Service, and to provide a use that is accessible to part of the wider community. It also offers in-house facilities for NPWS conferences. Some interpretative potential is available under this use, with the interior fabric and spaces accessible. Interpretation facilities could also be incorporated into this use.

VISITORS CENTRE / MUSEUM / NPWS SHOP / CONCESSION

The building could be used as the site's interpretation centre. As one of the larger, more impressive buildings on the site it provides substantial opportunities for displays, presentations, a museum, a shop, and other like facilities. Possible adaptation requirements would be upgraded toilet facilities and some level of restoration of the building's original configuration.

This use would provide the highest level of public access and the greatest commitment of resources to the interpretation of the site. Its interaction with the fortification walls could potentially be linked to the wider site fortifications interpretation.

Elemental Analysis

The fabric elements contributing to an understanding of the building's cultural significance are to be conserved. These include:

- The original form and materials of the 1880 structure including all details that contribute to its Victorian Regency style
- Stone basement walls and floor
- Main floor structure and linings
- Original stud wall framing
- Original doors, windows (including salvaged items) and hardware
- Chimneys and fireplaces

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- Ceiling and roof framing and any original ceiling lining. If roof battens for slate exist they should be retained.
- Verandah structures and original linings, including original rhythm of verandah posts
- The external stone steps and railing
- Any remnant footings or material from the demolished kitchen wing
- The defensive wall, moat and any remnant pathway or bridge

The fabric elements that are less essential to the significance of the building, but do not detract from the significance that may be retained or removed include:

- The early fabric from the c1905 kitchen addition (29.13-15)
- The remnants of the bathroom, extended bathroom and kitchen (Rm 29.02)
- The c1930s window screens and timber boarded spandrel along 29.07 & 29.09
- The c1930s ceiling and wall linings and trims
- The 1955 kitchen and laundry fitout
- Concrete slabs associated with kitchen additions
- The dividing fence line and picket fence to moat enclosure

The fabric elements that have some negative impact upon the significance of the building, but should only be removed if the selected use required it include:

- The asbestos roof sheeting on the main roof and verandahs, including 1955 fascias and boxed eaves
- The incompatible windows W.17, W.18, W.02 on the main approach to the building
- The timber lattice to verandah 29.12
- PVC downpipes
- The 1955 partitions and doors in the main passageways
- The 1955 ensuites, partitions, blocking up of chimneys, windows and doors. This will include the attached plumbing pipes in the basement.
- The c1960s infill of Door D.32, verandah division and picket gates
- The c1960s verandah infill and damaged windows
- The plastic covered enclosure adjacent the laundry
- The skylight in 29.01
- The area of fill heaped up against the moat to the north east of the building

The fabric elements that are endangering or obscuring the significance of the building and need to be removed, repaired or upgraded in order to protect the building and ensure its ongoing use include:

- The failed guttering and discontinuous downpipes. The box gutter is a potential problem that requires a fail safe solution.
- The subsiding corner of 29.13 and resultant structural damage

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- The damaged areas of stone and mortar repointing requirements in the basement walls
- The fixing of the wrought iron balustrade to the stone treads in the external stair
- Broken stone treads on external stair
- The damaged masonite ceilings in 29.01 and 29.02 and the cause of the leak contributing to the damage
- The poor drainage in the basement
- The modifications to W.01
- Damaged, rotted or loose external weatherboards, particularly on south façade.
- Any significant plant growth against stone walls

Adaptation

Should the building continue in its present use, some adaptation would be required to comply with the BCA or a deemed to comply dispensation would need to be sought through the appropriate certification authority.

For other uses, the works will be defined as restoration (the removal of intrusive elements) in order to reinstate significant aspects of the building interior. All uses will require upgrading of services for smoke detection.

Provision of toilet facilities for adaptive reuse may become necessary, but can be accommodated in the least significant space (29.02) that has been altered twice before. Fig MH29.27 is a generic diagram intended to explain the possible alterations required to provide for additional toilets should the building be restored to its original configuration. There are some alterations to less significant windows, the infilling of two doors, and the introduction of one new opening. New plumbing can be routed outside the building envelope and thus not affect significant fabric.

Car parking has been treated as a site issue and forms part of the main document.

Immediate Site Curtilage

The building's immediate site context is well defined. The moat and defensive wall form an imposing barrier to the north and west, and the front grassed area should necessarily be kept clear of structures.

The south and the east are well defined by planting and form the most important element of the visual catchment for the building. This area should also be kept clear due to the archaeological sensitivity of the site of the demolished kitchen block.

There is a carport in this area, but it is well set back from the building and has little immediate impact upon the building.

The timber perimeter fence is the most appropriate curtilage.

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CONSTRAINTS

BCA Constraints

The building must be treated as a two storey building due to the fall in the ground, however the number of exits and the fact that the entrance is at ground level means that the building is required to have Type C construction for Class 2 (Residential) or Class 6 (Office) uses. The building can also be considered a Class 1a or 1b depending on use.

The main note on fire safety is that if residences are separated into two units (as presently) the separating wall must form a 60/60/60 FRL barrier from floor to underside of roof.

FIRE RESISTANCE

At present it is likely the building does not comply with fire separation requirements of the BCA. The bulk of the separating walls are likely to be fibrous plaster sheet c1930s, the others are AC sheet from 1955. Fire ratings are determined by certification testing and the grades of plasterboard now used for fire protection are substantially different to the early materials used in the 1930s. The sections with AC sheeting will have a high fire rating, however as the fibrous plaster partitions predate such requirements they are unlikely to comply with the fire rating requirement, and are almost certainly not carried through to the underside of roof. Any timber penetrations through such a barrier are not recommended, but should this be necessary it can be argued on the basis of AS1720 with an expanding fire sealant (although non-proprietary systems are difficult to get certified). It may be possible to argue that the AC ceilings comply with the fire rating requirement for ceilings and that the partitions do not have to be extended (although some ceilings are plasterboard or lathe and plaster).

The building generally has little resistance to fire; the walls are stud framed with timber and sheet linings, although the stone base would be well protected.

In most cases the building's present materials are suitable for the range of proposed uses discussed above.

The asbestos sheeting in the roof cladding (and likely 1955 internal wall lining) poses an environmental risk in the case of fire. As this building can be regarded as being in a bush fire prone location, under the definitions of *AS3959 – Construction of buildings in bushfire prone areas*, consideration should be given to replacing the roof cladding with metal sheeting. Whilst a lesser risk, the removal of 1955 partitions should also be considered for this reason.

COMPARTMENTATION AND SEPARATION

As discussed above, this would only be required in the case of separate sole occupancy units. The details of such have been mentioned above.

Uses including a shared residence, single residence, offices, interpretation centre, and the like would not require any compartmentation works.

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PROTECTION OF OPENINGS

With no fire source features within six metres, the only possibility that this would be required would be in the case of an egress route passing across the face of someone else's window. The difficulty in achieving this would prohibit this arrangement from being considered.

EGRESS

The building has multiple points of egress, even in its present arrangement.

The partitioning to the passageways reduces its egress potential.

A dispensation may need to be sought on heritage grounds for the retention of the present door swings. With so many points of egress the building would have to be regarded as fulfilling the deemed-to-comply provisions for most uses.

ACCESS FOR DISABLED

A residential use will not require equitable access as the building does not have a public use.

However, in the case of a public use, at present equitable access is not provided to this building. The building has steps at the entrances and at verandahs. Small ramps at the doors would be quite intrusive in most cases, but it may be necessary to provide one at D.17 as a minimum requirement. It would also not be possible to provide a disabled toilet, and this needs to be dealt with as a site issue.

FIRE SERVICES

Any Class 1 building will need smoke alarms in accordance with Sect 3.7.2 of Volume 1 of the BCA.

Any Class 2 or 6 building will need to install fire extinguishers in accordance with Clause E1.6, and a smoke detection system in accordance with Spec E2.2a of BCA Vol 2.

AMENITY ISSUES

The rooms are adequately sized, lit and ventilated for its present use. Some consideration of upgraded lighting may be necessary for office or interpretation use.

There are a few damp problems in the basement area that do not affect the main floor level, but should be addressed to protect the building and to provide a healthy environment for occupants.

The leaks to the bathrooms also need to be addressed in a way that is a permanent solution. As the bathrooms appear not to have been adequately waterproofed, should they be retained it is recommended that they be stripped out and re-installed in accordance with the minimum requirements for waterproofing.

Recommendations on the conservation benefits related to the bathrooms are discussed in Potential Uses above.

ANCILLIARY PROVISIONS

The building is regarded by *AS3959 – Construction of buildings in bushfire prone areas* as being in a bush fire prone area (atop a steep hill with a National Park below). A

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fire break mediates this risk and it would need to be assessed in detail. The BCA references this Standard and makes compliance mandatory for Classes 1, 2 and 3 buildings. This includes any residential use. Fire protection strategies are a common feature of NPWS properties and recommendations thus fall outside the scope of this plan.

SPECIAL USE REQUIREMENTS

The building is unlikely to fall into this category.

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MAINTENANCE ASSESSMENT

Urgent Work: 0-1 year

- Replace guttering with ogee profile. See Appendix L for information on compatible roofing and rainwater goods.
- Repair leak in roof above 29.01 and 29.02
- Replace PVC downpipes with galvanised steel and make direct connection with stormwater line. Use stiffer material at base to prevent damage
- Upgrade box gutter lining to 1.2mm Grade 316 stainless steel sheet or equivalent fail safe material – refer to Appendix L for compatibility requirements
- Investigate subsidence at corner of 29.13 and stabilise. Make good structure and finishes
- Carefully melt lead pockets in external stair treads and remove wrought iron baluster fixings.
- OPTION
 1. Sandblast and treat wrought iron balusters with corrosion protection (such as epoxy primer) and reinstall in new lead pockets with minimum 150mm to edge of stone. Fill old pockets with epoxy repair.
 2. Replace balustrade with approved Grade 316 stainless steel design. It is preferable to retain existing fabric and a new balustrade should only be considered if the existing cannot be made to function.
- Repair or replace broken stone treads at base of both stair flights

Medium Term Work: 1-3 years

- Inspect external weather boards, particularly damaged sections on south west wall for damage. Replace to match or repair boards as required.
- Schedule stone repairs and repointing over a period to integrate with maintenance works
- Replace damaged ceilings in 29.01 and 29.02
- Improve drainage channels in basement, connect to stormwater channel
- Repair faulty caulking to flooring

Long Term Work: 3-5 years

- Site works to reinstate line of moat and defensive wall

Optional Interpretative Works

- Remove timber lattice to 29.12
- Remove identified 1955 partitions and doorways from main passageways and make good walls

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH29	Former Officer's Quarters	Site Plan No. 14 MQ9a & 9b

- Remove 1955 ensuite partitions, fixtures, floor tiling and plumbing, windows W.19 & W.20 and blocking up of fireplaces. Make good floor, wall, fireplace and ceilings.
- Remove infill panels in 29.07 and 29.21. Replace side screen wall in 29.21 and 29.22 with screens to match those along sides of 29.07 & 29.09.
- Remove ventilation hole in W.01, repair sash, reglaze and make operable
- Remove verandah division between 29.09 and 29.22 and make good
- Unblock D.32 and, if door missing, provide door to match D.17.
- Remove picket gates to stair landing
- Remove skylight in 29.01 and make good roof
- Remove clear plastic covered timber framing adjacent 29.13
- Reconstruct as an interpretive element the missing timber shutters to French doors and twelve pane windows in their original locations based on original remnants intact on D.22 and D.23 and on original drawings by Barnet.
- Remove corrugated asbestos roof sheeting, fascia and soffits. Replace with selected roofing material (in accordance with Appendix L), fascia with 9mm bead at bottom edge, and 150mm beaded boarded soffit with vent panels. Reuse lead flashings where possible (note compatibility requirements in Appendix L)

Cyclical Maintenance

- Clean down external timber elements every year
- Paint external timbers every 7 – 10 years – ensure sufficient time to allow double hung windows to dry without sealing shut.
- Paint external metalwork with corrosion resistant paints in accordance with manufacturer's recommendations
- Clean gutters every three months.
- Clean windows at six monthly intervals.
- Inspect building for termite activity every six months.
- Check downpipes for blockages annually. Water seepage can be the most destructive element to building materials.
- Clear plant growth from perimeter of stone walls annually
- Clean clear finished timber annually. Refinish trafficable timber surfaces with tung oil every two years, with increasing frequency for high traffic areas.
- Recoat black japan finishes in accordance with manufacturer's recommendations.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH29

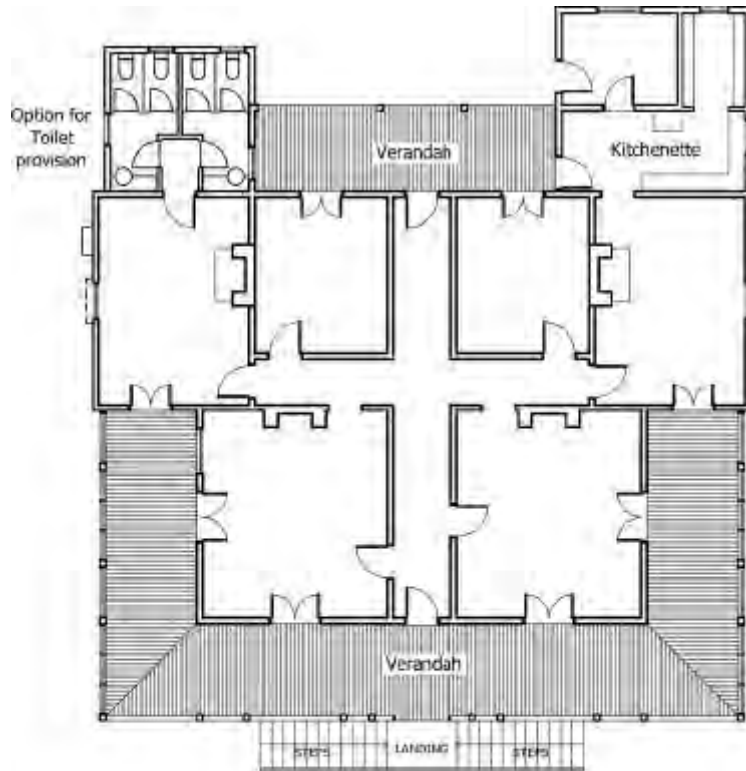
Building Name:

Former Officer's Quarters

Other Reference Numbers

**Site Plan No. 14
MQ9a & 9b**

EXPLANATORY DIAGRAM OF RESTORATION AND ADAPTATION POSSIBILITY



MH29 OFFICER'S QUARTERS - Adaptation

SCALE 1:200

Fig MH29.27 In the event of restoration of the original layout of the building, this diagram is intended to show a possible location of new facilities that have the least impact upon the significance of the space. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH30

Building Name:

Former Sergeant Major's Quarters

Other Reference Numbers

**Site Plan No. 15
MQ133**

LOCATION PLAN



Fig MH30.1 Site Plan showing Sgt Mjrs Quarters relationship to Middle Head Barracks Precinct. Based upon survey drawing CEN 1515 - 1960 and overlaid with aerial photograph and site measurements- PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet

Building Number

MH30

Building Name:

Former Sergeant Major's Quarters

Other Reference Numbers

**Site Plan No. 15
MQ133**

CURRENT PHOTOGRAPHS



Fig MH30.2 The front (south east) elevation showing verandah and front wall in process of repair works. PAUL DAVIES PTY LTD 2002



Fig MH30.3 The building from the north showing the unbalanced roof form. PAUL DAVIES PTY LTD 2002



Fig MH30.4 The south elevation showing the odd window arrangement. PAUL DAVIES PTY LTD 2002



Fig MH30.5 left View from west showing laundry addition. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

DRAWINGS



Fig MH30.6 Measured plan of existing building. PAUL DAVIES PTY LTD 2002

HISTORIC PLANS



Fig MH30.7 Site plan outline of building in 1939. NAA SP857/3 PC/397



Fig MH30.8 Site plan outline of building in 1942. MIDDLE BATTERY FORT RECORD BOOK

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

BUILDING DESCRIPTION AND CONDITION

Description

The former Sergeant Major's Quarters is a very simple Transitional weatherboard cottage, almost in a traditional four room arrangement, with a symmetrical front façade and hipped verandah. The roof has gabled sides, with the roof extending down over the rear bathroom beyond the ceiling line. There are two chimney structures, both finished with matching decorative face brickwork. The fireplaces in 30.03 & 30.05 are off centre, but this may be to accommodate the door swings.

The building layout is arranged around a central hallway, with two front matching rooms (one with fireplace), and two rooms behind. The southern rear room is larger to accommodate the kitchen; the other is the same size as the front rooms with a small bathroom beyond. An external laundry addition is accessible from the rear yard, a pathway connects to an external toilet, and there is a wood store adjacent.

The interior of the building underwent conservation work 2001-2 (see section Fabric Changes). The flooring is lined with exposed timber boards throughout; the internal wall linings are horizontal beaded timber boards, and the ceilings are the same boards as the walls. The ceilings are vented with a similar vent as that found in MH26.

The external weatherboards are a simple lapped and chamfered type finished at corners with delicate edge trims. The windows are relatively large timber four (*in total*) paned double hung throughout, the internal doors are four panelled timber, with the main entry and rear doors timber ledged, framed and braced. The verandah framing is relatively simple with thin timber pieces acting as brackets at the timber posts. The fascias have a simple bead on the bottom edge, and the barges (replaced?) are stop-chamfered. The barge roll is a detail from the recent repairs. Soffits are beaded timber boards, and the boxing of the eaves has beading in its lower edges.

The building originally sat on exposed brick piers, but this has been filled in with brickwork on the south side. The laundry is set down from the main floor level.

Roof Framing & Cladding

Material: The main roof and verandahs have had their roof cladding repaired with prepainted galvanised sheeting (2001-2 works). The roof is likely to be constructed with traditional timber framing.

The guttering and downpipes have been replaced with copper that discharges directly onto a galvanised verandah roof. Under these circumstances the galvanised roofing will corrode extremely quickly. This arrangement needs to be rectified (refer to Appendix L for details on compatibility of metals).

The fascias have a simple bead on the bottom edge, and the barges are stop-chamfered with a painted galvanised barge roll. Soffits and boxed eaves are beaded timber boards.

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

Condition: The building is undergoing conservation works and materials have generally been repaired, or if not repairable, replaced.

Floors

Material: Exposed timber floor boards in main building.
Concrete slab in laundry

Condition: The building is undergoing conservation works and materials have generally been repaired, or if not repairable, replaced.

Walls - external and internal

Material: The external cladding is timber weatherboards. They are a simple lapped and chamfered type. The corners are finished with delicate timber edge trims with a staff mould type corner. Openings are trimmed with timber architraves. The kitchen chimney painted brickwork is exposed on the external face to the level of the ceiling. Internal walls are lined with 6" (150mm) horizontal beaded boards. Chimneys are painted. The fireplace surrounds are intact; the one in 30.05 shows some Art Nouveau influence. The laundry internal walls are unlined.

Condition: The building is undergoing conservation works and materials have generally been repaired, or if not repairable, replaced.

Ceilings

Material: The ceilings are lined with timber 6" (150mm) beaded boards. Ceiling vents are circular with timber mould surrounds. The verandah soffits are beaded timber boards. The laundry ceiling is unlined.

Condition: The building is undergoing conservation works and materials have generally been repaired, or if not repairable, replaced.

Doors

The internal doors are four panelled timber doors.

The front, laundry and rear doors are ledged, framed and braced timber doors.

Windows

The windows are timber four paned double hung throughout. The laundry window is likely to be a salvaged window. The kitchen window is smaller than the other windows in the building. The windows are similar in size and detail to those used in MH31, but are more dramatic as the rooms are much smaller.

W.05 has been relocated and the architrave has been cut to fit against the wall.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

The windows demonstrate four types of frames. The original frame has a stepped quad type horn and is found on W.01, W.02, W.03 and W.08. A later type has a cyma-reversa horn and is found on W.04 and W.06. W.05 has a different horn again. W.07 and W.09 are later, thicker framed windows with no horns.

Fittings

The kitchen fitout has been painted.

The bathrooms have had a later cladding removed, and the original linings painted.

Electrical Fitout

As works were in progress this could not be assessed. The specification calls for rewiring and new power points.

Plumbing and Drainage

The bathroom fittings are intact.

The site falls to the west and this appears to keep the environs well drained.

Immediate Site Context

The building fronts Govenors Drive with a later picket fence to define its front boundary. There is significant plant growth in this area. A picket fence around the immediate front verandah has been removed (temporarily) as part of the 2001-2 conservation works. There are no mortises for the picket fence framing to connect to the posts.

A carport stands to the north of the building behind a timber fence and cyclone mesh gates. There is a clothes line in the back yard.

HISTORICAL BACKGROUND

MH30 is a small weatherboard cottage with a central corridor and five main rooms. The role of the building as the residence of the highest-ranking non-commissioned officer in the day-to-day functioning of the site was critical. The Sergeant-Major oversaw most of the daily activities of the men, not only in terms of military operations, but also on a more personal level. The position of the cottage with oversight of the whole of the rest of the site and the entry is indicative of the Sergeant-Major's important position in the garrison hierarchy.

The cottage seems to have been assigned as married quarters before WWII, as it already described so on the 1939 site plan attached to NAA file SP857/3PC/397. However no major fabric changes seem to have been associated with this change in appellation. As with many of the other buildings on the site, the house block was probably surrounded by a picket fence.

STATE THEMES

Defence

Housing

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

DATING THE BUILDING

Documentation

The earliest documented mention of MH30 is on the *1903 List*. In this case the description matches the building and the name is unlikely to be any other building on the site. The description includes the outbuildings, but not the laundry. As an audit of what was on the site, the list sets the latest date for the building's construction.

The building also appears on the undated plan *M59 DHC FA 164 T40* which appears to be c.1905 or earlier (see discussion *Fabric Changes MH29*).

Wilson 1985 omits the building from the list shown on the 1899 plan (M35).

Thus, documentation would see the building dated 1900-1903. Whilst this is an extremely odd time for the building to have been constructed given the political transfers that were happening at the time, the fabric analysis cannot offer a more precise date.

Fabric Assessment

The building has some elements that match the detail of the Guardhouse MH32 (c1887). The beaded board soffits are common in the Victorian and Transitional periods. Whilst similar to MH32, the building is quite dissimilar to MH31 (c1892), which would encourage a date before 1890.

The building has 6" (150mm) beaded boards throughout, a traditional Victorian feature (as the Federation period favoured v-jointed boards). The type and size of the windows is an 1880-90s feature. The decorative chimney brickwork would be best placed in the Transitional period. A best guess would place the building around 1885-1895, which is sufficiently close to the date given by the documentation to resolve on a construction date of c1900.

FABRIC CHANGES

The building was originally constructed as a five room structure with a front verandah. There are some irregularities in the plan that may conceal changes to the fabric, but are more likely due to the choices of the builder or the idiosyncrasy of the designer.

- In what is a formal symmetrical design the position of W.08 is unexpected. It may have been moved from the centre of the room.
- Likewise windows W.03 and W.09 are not in a location that would be expected on this type of building. W.09 is a later opening, but W.03 matches the original detail.
- The internal doors are four panelled, but the front door is a ledged door. This is the reverse of what would normally be the case and it is possible that the original front door has been changed.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

- The unbalanced roof profile on the north east façade is also unexpected and may conceal an early extension for the bathroom. The earliest plans available show the bathroom as it presently stands.
- The smaller size of W.04 is unusual, but may reflect the function of 30.04 (kitchen). The present window frame is not original, and the only original opening may have been the opening (now covered over in the back wall).

There are few changes evident in the fabric. The laundry is an addition. The building outline shown on the 1939 site plan (Fig MH30.7) does not include the laundry, the 1942 *Wightley* plan (Fig MH30.8) shows the laundry outline. By 1939 the building was nominated as married quarters and this would have generated the need for laundry facilities. The addition of the laundry required the moving of a window in the rear wall of the kitchen to the side wall. Strangely it was not centred on the panel, but forced into the corner, damaging the architrave. This was possibly generated by the furniture layout of the time, but is inexplicable today.

Very little else has changed in the building's history. The bathroom fitout has undergone upgrading, most likely during the immediate post war period when it became MQ133.

The building is undergoing repair works in preparation for occupation by NPWS staff offices. As part of this work the roofing and guttering have been replaced, all timber work is being repaired and refinished, the later bathroom linings have been stripped but the fittings are intact.

STATEMENT OF SIGNIFICANCE

The Sergeant Major's Quarters was an important building on the site. A building with a similar purpose was housed at Georges Head. The siting of MH30 contributes an understanding of the role of the Sergeant Major, as the building was focused on the camp itself instead of surveying the harbour, demonstrating the internal management role. A very simple vernacular structure, not far advanced from a Georgian four roomed structure, the building nonetheless has a high level of finish, large and well detailed windows, decorative face brick chimneys and good quality joinery. The planning is irregular, with some awkward expression in the external form, and is likely to have been designed by a military designer.

Likely to date from the latter part of the extensive site activity of the 1870-1890s, MH30 demonstrates the development of the site into a full military establishment and illustrates further detail about the chain of command. The built fabric is largely intact and is representative of a timber clad turn of the century vernacular style.

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

POLICY

Potential Uses

OFFICE

The planning layout is suitable as a series of separate offices as this will not put pressure on the existing level of amenities provided in the building. The layout could be used as four offices or three offices with a staff/lunch room.

The Sergeant Major, as an NCO and warrant officer, was closely related by use to the Barracks 1 and Guardhouse. Some form of related use between these buildings would also be desirable.

RESIDENCE

The building was designed as a residence but provides a fairly spartan lifestyle without any obvious living areas. The present arrangement includes a bathroom, but has an external toilet. Although the building offers a low level of amenity as a residence it is appropriate for it to continue as a residence, as it is the use the building has served for most of its history.

It is possible that such a use would generate the need for an internal toilet, which can be accommodated in 30.06. The outbuildings are contemporary with the building (they are listed in the 1903 list) and as such should be conserved along with the main structure.

CONFERENCE FACILITIES

The tight corridor limits the building's potential for public uses. The building provides three meeting spaces with a kitchen area and bathroom facilities. It can accommodate a low level use as a meeting room facility.

VISITORS CENTRE / MUSEUM / NPWS SHOP / CONCESSION

An interpretation centre, as the public focus of the site, needs to be able to accommodate the expected number of visitors, especially at peak periods. The narrow corridor would make circulation through the building difficult under these circumstances. Despite being located near the entrance, the building is not the most suitable building on the site for this use.

Elemental Analysis

The fabric elements contributing to an understanding of the building's cultural significance are to be conserved. These include:

- The original form and materials of the c1890 structure including all details that contributes to its Victorian/Transitional vernacular character.
- Main floor structure and lining
- Original stud wall framing and boarded wall linings
- Original doors, windows and hardware
- Salvaged, relocated and other windows and doors
- Chimneys and original fireplace, including face brick finish externally

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

- Roof framing including any early battening
- Ceiling framing and linings
- Verandah framing, beams and posts
- The bathroom fitout
- The kitchen fitout
- The laundry addition wall and roof framing and cladding
- The outbuildings

The fabric elements that are less essential to the significance of the building, but do not detract from the significance that may be retained or removed include:

- The concrete pathways
- The site picket fence (which is in the correct form but is inappropriately detailed)
- The verandah picket fence (may be restored or omitted without impact)
- The timber paling fence
- The carport

The fabric elements that have some negative impact upon the significance of the building, but should only be removed if the selected use required it include:

- The cyclone fence gate

The fabric elements that are endangering or obscuring the significance of the building and need to be removed, repaired or upgraded in order to protect the building and ensure its ongoing use include:

- The incompatibility between the verandah roof cladding and the copper rainwater goods (refer Appendix L for selection of appropriate materials)

Adaptation

There are no adaptive works required for this building for most uses. All uses will require upgrading of services for smoke detection.

A residential use may encourage the desire for a future upgrade of services, and this may have some potential to impact upon the significance of the structure.

Car parking has been treated as a site issue and forms part of the main document.

Immediate Site Curtilage

The building is defined by a front picket fence, a timber paling fence to the north and east, and the moat and vegetation to the south and west. This fenced boundary gives the building an appropriate setting.

The carport is in this instance well set back from the building, which reduces its visual impact. The small trees at the front of the site and the cyclone fence gates do not contribute to the quality of the setting and should be replaced with more appropriate elements.

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

CONSTRAINTS

BCA Constraints

The building is a single storey building with no fire source features nearby as defined by the BCA. Any use would thus require Type C construction.

Use as a single residence or office would not require any fire resistant construction. A change to a public use would not increase this requirement.

FIRE RESISTANCE

The building complies with the requirements of Type C construction.

COMPARTMENTATION AND SEPARATION

The building offers no compartmentation.

PROTECTION OF OPENINGS

The openings are not required to be protected.

EGRESS

The central corridor provides direct egress in two directions. The 915mm hallway width is under the minimum 1000mm requirement for anything but a residential use, but the short travel distance and dual direction should be sufficient to obtain a dispensation on heritage grounds. Likewise the size of the building should be sufficient justification for leaving the door swings as they are.

ACCESS FOR DISABLED

Equitable access must be provided in publicly accessible buildings.

Even if access to this building could be obtained effectively, the planning layout prevents adequate movement for a person in a wheelchair, and as such the building cannot provide equitable access.

FIRE SERVICES

Any Class 1 building will need smoke alarms in accordance with Sect 3.7.2 of Volume 1 of the BCA.

Any Class 2 or 6 building will need to install fire extinguishers in accordance with Clause E1.6, and a smoke detection system in accordance with Spec E2.2a of BCA Vol 2.

AMENITY ISSUES

The rooms are adequately sized, lit and ventilated, and there appears to be no significant dampness or drainage issues.

ANCILLARY REQUIREMENTS

The building is regarded by *AS3959 – Construction of buildings in bushfire prone areas* as being in a bush fire prone area (atop a steep hill with a National Park below). A fire break mediates this risk and it would need to be assessed in detail. The BCA references this Standard and makes compliance mandatory for Classes 1, 2 and 3 buildings. This includes any residential use. Fire protection strategies are a common

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers
MH30	Former Sergeant Major's Quarters	Site Plan No. 15 MQ133

feature of NPWS properties and recommendations thus fall outside the scope of this plan.

SPECIAL USE REQUIREMENTS

The building is unlikely to fall into this category.

MAINTENANCE ASSESSMENT

The building is undergoing a significant repair process and the short term works are thus likely to be part of the scope of the builder's work.

Urgent Work: 0-1 year

- Resolve the roofing and guttering to ensure that they are compatible materials and will not cause damage to the structure.

Medium Term Work: 1-3 years

- The picket fence to the verandah may be restored to the building or omitted from the 2001-2 works. It is not of high significance.

Long Term Work: 3-5 years

-

Optional Interpretative Works

-

Cyclical Maintenance

- Clean down external timber elements every year.
- Paint external timbers every 7 – 10 years – ensure sufficient time to allow double hung windows to dry without sealing shut. The building was last painted in 2002.
- Clean gutters every three months.
- Clean windows at six monthly intervals.
- Inspect building for termite activity every six months.
- Check downpipes for blockages annually. Water seepage can be the most destructive element to building materials.
- Clean clear finished timber annually. Refinish trafficable timber surfaces with tung oil every two years, with increasing frequency for high traffic areas.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH31

Building Name:

Former Soldier's Institute

Other Reference Numbers

Site Plan No. 4/5

MQ10

LOCATION PLAN

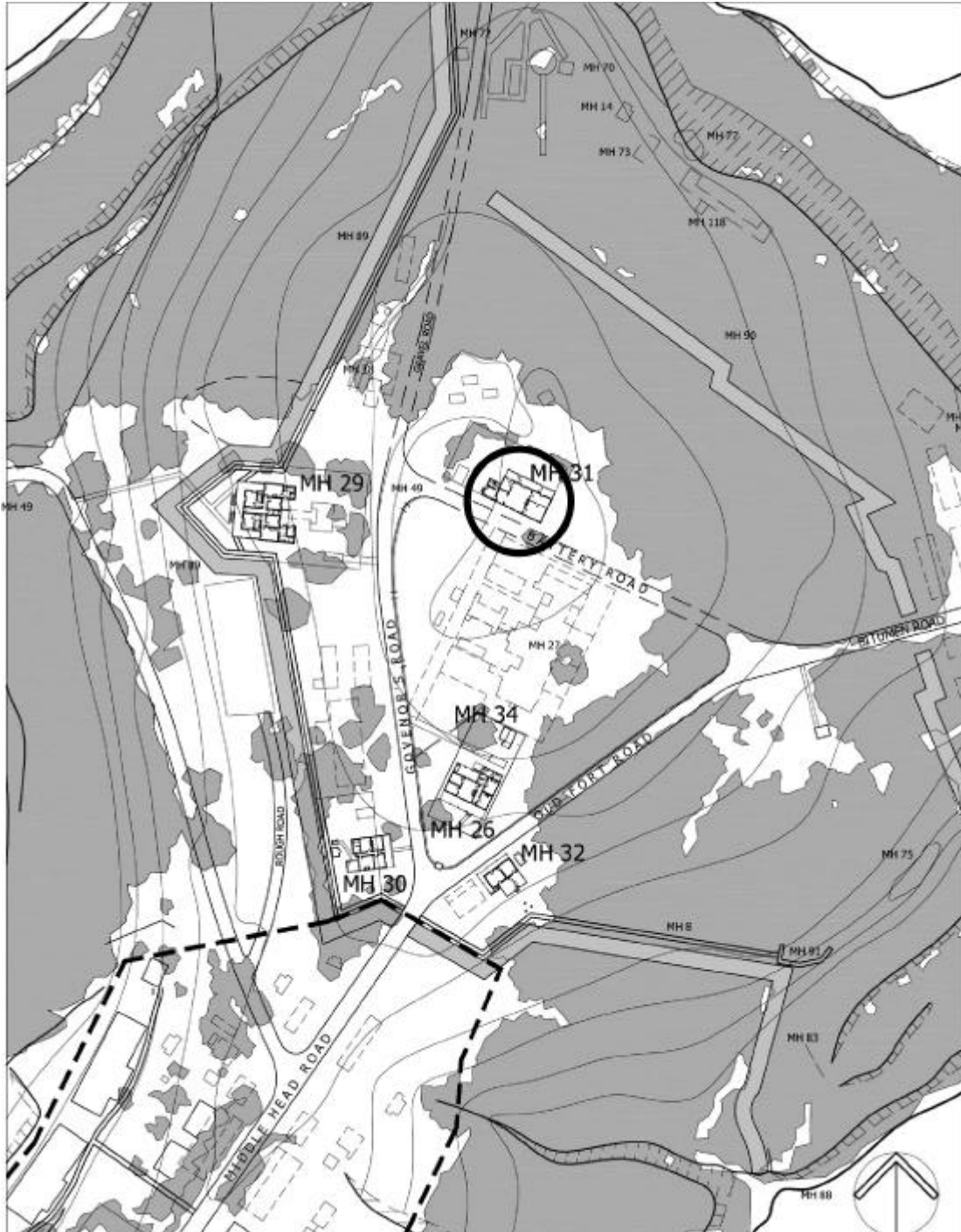


Fig MH31.1 Site Plan showing Soldier's Institute relationship to Middle Head Barracks Precinct. Based upon survey drawing CEN 1515 - 1960 and overlaid with aerial photograph and site measurements- PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH31

Building Name:

Former Soldier's Institute

Other Reference Numbers

**Site Plan No. 4/5
MQ10**

PHOTOGRAPHS



Fig MH31.2 Soldier's Institute from north showing verandah infill and tree overhanging roof. Note decorative chimney. PAUL DAVIES PTY LTD 2002



Fig MH31.3 Further view from north showing carport and kitchen addition with chimney. Note open vent to roof. PAUL DAVIES PTY LTD 2002



Fig MH31.4 South western façade showing paired windows to main rooms. PAUL DAVIES PTY LTD 2002



Fig MH31.5 South eastern façade showing slightly unbalanced window positioning and verandah enclosure. Note closed vent to roof. PAUL DAVIES PTY LTD 2002



Fig MH31.6 View along what was battery road showing fence line and chimney structure. . PAUL DAVIES PTY LTD 2002



Fig MH31.7 Eastern view showing fencing and verandah infill. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH31

Building Name:

Former Soldier's Institute

Other Reference Numbers

**Site Plan No. 4/5
MQ10**



Fig MH31.8 Eastern view showing what was the main façade of the building. The verandah looked out to the harbour, now infilled and obscured. PAUL DAVIES PTY LTD 2002



Fig MH31.9 Entrance pathway and Battery Road. PAUL DAVIES PTY LTD 2002



Fig MH31.10 Detail of verandah enclosure from south east. PAUL DAVIES PTY LTD 2002



Fig MH31.11 Detail of verandah enclosure showing sliding windows and FC sheet adjacent. PAUL DAVIES PTY LTD 2002

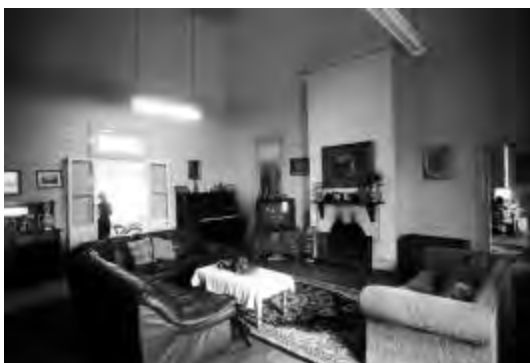


Fig MH31.12 Interior main undivided room showing voluminous ceiling. PAUL DAVIES PTY LTD 2002



Fig MH31.13 Reverse view of main space showing three centred arch opening. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH31

Building Name:

Former Soldier's Institute

Other Reference Numbers

Site Plan No. 4/5

MQ10



Fig MH31.14 Interior divided room showing partition butting into fireplace and later door opening. . PAUL DAVIES PTY LTD 2002



Fig MH31.15 Interior of verandah enclosure showing that original exterior cladding removed in favour of FC sheet. Note the low window heads. PAUL DAVIES PTY LTD 2002



Fig MH31.16 Interior of kitchen fitout showing early nine paned glazed door. PAUL DAVIES PTY LTD 2002

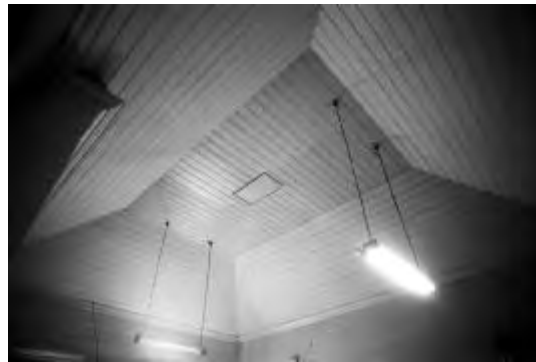


Fig MH31.17 Ceiling form and linings. The central vent has been blocked up. The suspended light fittings are fluorescent tubes. PAUL DAVIES PTY LTD 2002



Fig MH31.18 Altered fireplace. The detailing, style and materials would date from pre-1940. PAUL DAVIES PTY LTD 2002



Fig MH31.19 Detail of three centred arch opening. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH31

Building Name:

Former Soldier's Institute

Other Reference Numbers

**Site Plan No. 4/5
MQ10**



Fig MH31.20 Patching of the floor does not always match the size or colour of the original. PAUL DAVIES PTY LTD 2002



Fig MH31.21 A single door designed to mimic the double French doors. PAUL DAVIES PTY LTD 2002



Fig MH31.22 Detail of window – originally four paned the central glazing bar has been removed. PAUL DAVIES PTY LTD 2002



Fig MH31.23 The rear shed with a salvaged (or original) four paned window and ledged door. The FC sheet appears in fair to poor condition. PAUL DAVIES PTY LTD 2002



Fig MH31.24 The end wall of the shed is in a substantially poorer condition. PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH31

Building Name:

Former Soldier's Institute

Other Reference Numbers

Site Plan No. 4/5

MQ10

DRAWINGS

MH31 SOLDIER'S INSTITUTE

SCALE 1:200

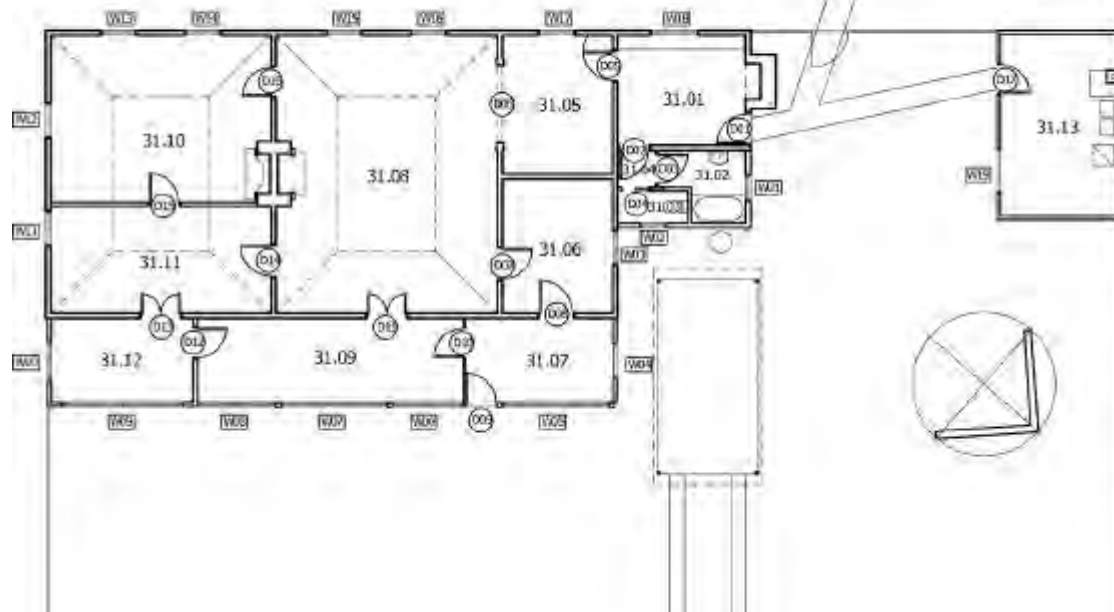


Fig MH31.25 Measured plan of existing building. PAUL DAVIES PTY LTD 2002

HISTORICAL DRAWING

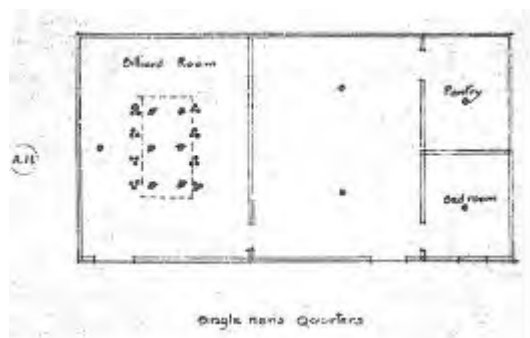


Fig MH31.26 Undated sketch of what was to become the Soldier's Institute. The drawing is indicative only, showing door positions but omitting windows, and possibly the verandah. The sketch would predate the works done c1915 (see fabric changes below). The original use was recreational, and the building was described as 'Single Mens Quarters'. FA160 T43

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number: **MH31** Building Name: **Former Soldier's Institute** Other Reference Numbers: **Site Plan No. 4/5**
MQ10

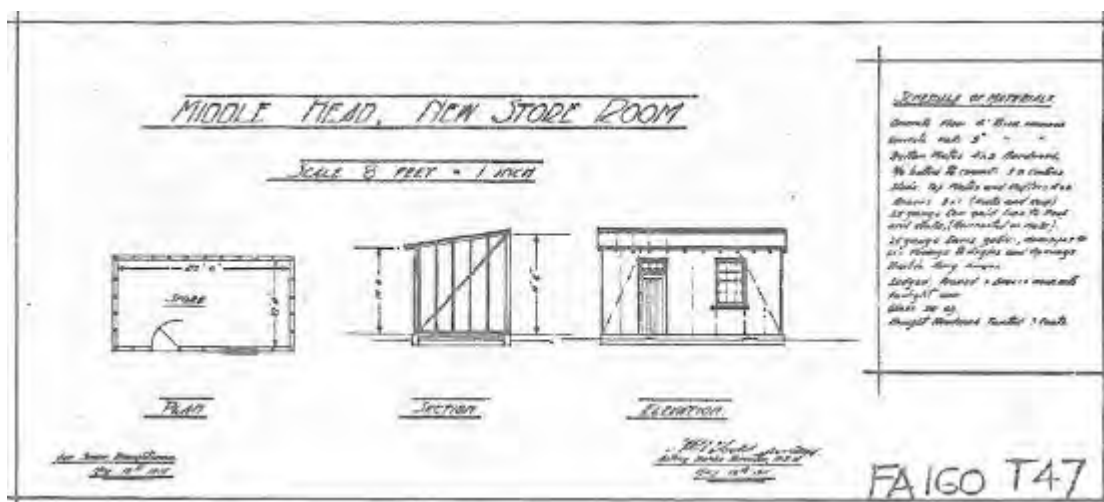


Fig MH31.27 1915 Plans of the shed adjacent MH31. Fig MH31.23 shows that either the plans were not fully carried out, or that some alteration has occurred. The present condition would indicate that the cladding has been changed at some point. FA160 T47

BUILDING DESCRIPTION AND CONDITION

Description

The former Soldier's Institute is one of the larger buildings on site with a main central room surrounded by what are now seven living spaces, and a kitchen and bathroom. The main spaces have high cathedral ceilings.

The walls are generally stud framed and timber lined internally and externally, with a dutch gabled roof clad with relatively new painted metal sheeting. Separating what were once the two main rooms is a back to back fireplace, with an intact Victorian fireplace in 31.10. The fireplace in 31.08 has been replaced with a sandstone arched motif with a timber mantle. Three of the living spaces are formed from an enclosed verandah to the north east face with some weatherboard cladding and some fibre cement cladding.

The building has polished timber floors throughout the main areas, with a concrete slab in the enclosed verandah. The kitchen has a linoleum floor covering and the bathrooms have small brown tiles.

The ceilings are lined with the same boards as the walls and form expansive spaces with ceiling heights of 16' (4900mm). The original windows were four paned double hung, but most have been modified to two pane or other configurations. The doors to the verandah are French doors with fanlights, a single door from the adjacent room is designed to appear as if it were a French door. Two original internal doors are four panelled with internal fanlights. The door into the kitchen is a half door cut down from an earlier door. All other doors are flush faced recent doors.

The building has a recent carport immediately adjacent and a fibre cement clad shed nearby. An area of lawn has been fenced off, and this is bordered by the edge of the regenerating vegetation.

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Roof Framing & Cladding

Material: Painted metal roof cladding and flashing. It would appear the guttering and downpipes are galvanised.

Condition: The roof is in good condition.
The guttering and downpipes are in relatively poor condition with numerous breakages and loose connections.

Floors

Material: In the main wing the floors are generally wide board exposed Kauri Pine with a substantial amount of patching, some that nearly matches, others that are darker and narrower.

The kitchen has a lino tile covering, and the bathrooms have small brown ceramic tiles. These are set down from the main floor.

The verandah enclosure floor is a rough finished concrete slab with mats also set down from the main floor.

Condition: The main floor is in relatively good condition except for the patching. There are two pockets cut out of the floor in 31.10, purpose unknown. A lead, zinc or steel sheet has been nailed in front of the fireplace hearth in 31.08.

There appears to be no floor access hatch. The building does not sit substantially above the general ground level and thus is most likely to have a poor sub-floor space. The condition of floor structure should thus be checked for rot and termite damage.

Walls – external and internal

Material: The external wall cladding is approx 150mm timber weatherboard with a simple scallop at the top edge. Timber edge and corner strips define the additions. The later additions use a different lapped weatherboard, and the more recent use a fibre cement sheet. Original external cladding has been stripped and replaced in 31.07, 31.09 & 31.12 with FC sheet, resulting in the architraves trims standing proud of the wall.

Internally the main rooms are clad in 6" (150mm) horizontal round jointed boards that are identical to MH26. The 5" (125mm) simple lambs tongue architraves and 8" (200mm) simple lambs tongue skirting is also identical to MH26.

Later partitions are generally lined with FC sheet and either timber or plastic cover strips.

The chimney is painted brick internally, and face polychromatic brick externally. The kitchen chimney is a later face brown brick.

Condition: There are numerous areas where the external cladding has completely

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failed, especially adjacent failed downpipes. An area adjacent the carport (31.07) and the area outside the kitchen (31.01) near the chimney are the worst examples, but there are damaged areas throughout, most particularly on the additions.

Apart from these localised areas of damage, the bulk of the cladding appears in good condition. The south east wall shows a pronounced bow in its structure. This is due to the inability to provide any lateral restraint through the cathedral ceilings. Engineering advice will need to be sought on the seriousness of this problem, and whether a steel tie rod may be necessary.

The external FC sheet cladding is in a relatively poor condition, particularly on the adjacent shed.

The internal timber linings appear in good condition throughout, with some minor paint damage and small areas of writing.

Ceilings

Material: In the main rooms the ceilings are clad in the same boards as the walls with a large timber cornice that may have incorporated a ceiling venting system. 31.08 and the space occupied by 31.10 & 31.11 form large cathedral ceilings rising from 12' (3660mm) to 16' (4900mm) with a vent at the top of each (since blocked up). Rooms 31.06 and 31.05 have boarded flat 12' (3660mm) ceilings.

The kitchen and verandah infill spaces have raked FC sheet ceilings under the skillion roofs. These are relatively high with only the lower part of the kitchen area falling below 2400mm high.

Condition: The ceilings were generally in good condition.

Doors

Door D.01 is a 9 pane glazed door with two flush panels below. A traditional door designed for an external use, it is identical to one used at the Quarantine Station on a 1913 building. It has both its traditional rimlock and a newer deadlock.

Doors D.02, D.03, D.04, D.09, D.10, D.12 and D.15 are all more recent flush doors. They all date from the late 1950s onwards.

Door D.05 is perhaps an original or salvaged door that has been cut in half. The opening is unlikely to have been original.

Doors D.07 and D.14 are original four panelled doors with internal fanlights, both of which have been painted over and one of them is cracked. D.07 has a damaged bottom panel. They retain their original locks.

Door D.08 is an interesting example of a single leaf door designed to mimic the appearance of the French doors along the same elevation. This was a somewhat old-

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fashioned thing to do even in 1892, but may reflect the Neo-Georgian period in the early decades of the twentieth century.

Doors D.11 and D.13 are French doors with a single paned transom-light. Whilst their overall form is very Victorian, the glazing details are quite bulky, which encourages the view that they are a Federation or InterWar addition. The external side of the timber panel is a flush beaded detail, but it runs around the panel instead of just the vertical sides as would be expected from a traditional door. They retain their original locks.

Door D.06 is a wide opening with a three centred arched head and ornate timber detailing. A timber screen has since been removed, but the shadows of its framing remain in the jambs.

Door D.17 is a ledged door with an early rimlock and is likely to have been salvaged from elsewhere on site. It is not presently in good condition.

Windows

Window W.01, W.02, W.04, W.09, W.10 and W.18 are all more or less contemporary windows from the period of about World War II. W.01 & W.02 are a ventilated fixed 2 pane bathroom window similar to the one used in MH26. Windows W.04, W.09, W.10 and W.18 have the same framing type. Window W.04 is a six paned fixed window. W.09 is a group of sliding windows with a horizontal glazing bar. W.10 is a pair of casements to match. Window W.18 is a fixed triple light window.

Windows W.03, W.11, W.12, W.13, W.14, W.15, W.16 and W.17 are all original 4 pane double hung windows, most of which have been modified. W.03, W.11 & W.12 are in their original condition. W.13-17 have all been replaced with or modified to a 2 pane window. W.14 has a very heavy midrail due to a repair. The windows should all be checked over, as some are difficult to operate.

Windows W.05-8 are alternating fixed and awning windows. The head height is very low. These were installed with the c1960s verandah infill.

Fittings

The kitchen fittings date from the 1950s onwards. The kitchen is relatively small.

The bathroom fittings appear to have been upgraded in the last twenty years.

The laundry is presently in the attached storage shed, and also dates from the 1950s with some later equipment.

Electrical Fitout

Ceiling hung fluorescent tubes provide the general lighting, with ceiling mounted c1950s fittings in the kitchen and bathroom. Switches and power outlets have been upgraded recently.

Plumbing and Drainage

As the plumbing is in an externally located room it has little impact upon the building.

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The building is located on a flat rise in the centre of the site, and this area does not drain well with significant amount of rock at the surface. This increases concerns about the condition of the building's sub-floor framing members.

Immediate Site Context

An important site element, Battery Road, is now largely overgrown and is not immediately apparent. The early road network is an important part of understanding the site and particular the relationship that MH31 had with the road. The gravel road that leads down to the inner barracks is also substantially overgrown and the driveway and turning circle for MH31 is now the more evident on the site. A building or site shown to the rear of MH31 on early plans (such as the 1942 Wightley Plan) is now engulfed within a regrowth area.

MH31 has a large fenced area of grass that stretches back to the bushland area. A tree is located between the carport and the northern verandah. Its foliage lies on top of the verandah roof.

HISTORICAL BACKGROUND

MH31 is problematic to date, as it appears to contain elements of several different periods that are not easily reconcilable (see below). Originally called 'Single Men's name to 'Soldiers' Institute' suggests that it at one point served an educational purpose on the site, and the original configuration with its two large rooms and high cathedral ceiling spaces supports this. The early sketch Fig MH31.26 shows that these original spaces were largely conceived as recreational rooms, one as a billiards room.

Like the other buildings on the site (except MH29) MH31 was already identified as married quarters by 1939. In its present arrangement the building has no clear front entry, nor does it function well as a residence. The two main spaces were originally accessed via two separate doors onto the 'front' east-facing verandah, now enclosed. Oriented like the other buildings outwards from the 'centre' of the site, it originally formed part of the observational capabilities of the site, looking east towards North Head. It also forms an east-west line of structures associated with the rank-and-file troops, MH26, MH27 and MH31.

STATE THEMES

Defence
Housing

DATING THE BUILDING - PROBLEMS

There is a significant difficulty in dating the Soldier's Institute building due to discrepancies in the available documents.

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DOCUMENTARY

Wilson 1985 has made a full list of documents nominating tenders and completion dates of work. He states that tenders were called for MH31 in 1892 (Document 12 – Appendix J). On this basis the AHC Register of the National Estate listing has the building dated 1892.

However, the list of items transferred to the Commonwealth compiled in 1903 (Appendix B) does not mention the Soldier's Institute by name, possibly because it was known by another name. There are a number of buildings with very general descriptions that may be MH31, but these cannot be reconciled without further information about the site in 1903.

Plan *M35 VBM 3184 290.63 Chart of telephone System Port Jackson Defences* dated 1899 is a site wide plan indicating buildings. It does not show MH31. The plan does not appear to be diagrammatic. There is a possibility that this building was not included because of the purpose of the plan.

Plan *M59 DHC FA 164 T40 Block Plan of buildings* is an undated plan. The plan shows the original part of MH31. In estimating a date for this plan the critical element is that the kitchen wing attached to MH29 is shown intact. This is estimated to have been demolished c1905 (see *MH29 Datasheet – Fabric Changes*). From this it is estimated that MH31 predates 1905.

Plan *M58 DHC FA 160 T39 Plan showing position of hydrants requiring alterations* dated 1907 also appears to omit MH31, although *Wilson 1985* states that it appears. This drawing is very diagrammatic and is not intended to record the site.

On the basis of the documentary evidence *Gojak 2001* has concluded that MH31 was built c1908, assuming that the 1892 tender was not carried out. The State Heritage Inventory Records reflect this opinion and have the building dated 1908.

In summary, a date of c1892 must explain the later plans, the c1908 date must explain the earlier tender and lack of any tenders at a later date.

FABRIC ANALYSIS

The fabric of the building shows a remarkable similarity to MH26 (dated 1876) and uses the same 6" (150mm) rounded joint type of internal lining boards throughout. From c1900 onwards the boards are more likely to have been 4" (100mm) sharp-edged v-jointed boards. The scalloped external weatherboards are similar to those on buildings dated in the 1890s on the adjacent military sites outside the National Park.

The four paned windows are a Victorian type and have a delicate Victorian glazing bar joinery. The French doors are more robust and tend towards the 1930s; the early sketch suggests that they are not original elements. The fireplace appears to be an 1880s element, but this form was used well into the Federation period. The chimney is polychromatic face brickwork, which was introduced in the late 1880s and continued through into the Federation period, although the emphasis on the yellow brick seems more Victorian (cf. *Barnet - Goulburn Courthouse 1887*).

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In summary, the fabric assessment could support either 1892 or 1908 as a construction date, but would tend towards 1892 largely due to the similarity with MH26 and the greater likelihood of a substantial construction being undertaken during this period.

FABRIC CHANGES

The fabric changes in the building's history are equally poorly documented.

- At construction the building had two main rooms with cathedral ceilings (31.08 & 31.11/31.10) supported by two medium sized rooms (31.05 & 31.06). The main rooms and one smaller room opened onto a verandah to the north east. Originally 31.05 was a mirror image of 31.06. The verandah is not shown in Fig MH31.26, but the sketch is so diagrammatic that it would not be surprising that it was omitted.
- The adjacent shed (31.13) has a window that is similar to the main building and a ledged door with an early rimlock, the construction drawing is dated to 1915. As the internal framing is rudimentary and the exterior cladding poorly fitted, it would appear that the shed may have been rebuilt and has salvaged the window and door from the earlier building in the late 1960s.
- The decorative three centred arch opening in 31.05 is likely to have been added c1915 (when other works were underway), and clearly once included a decorative timber screen (since removed).
- The kitchen (31.01) appears to be an early addition. That it is not original is clear, but whether it is an enclosure of an original lean-to structure is unclear. The door D.01 is a 9-pane glazed door with solid lower panels. Identical doors were used at the Quarantine Station, the earliest being in Building S12 dated 1913. This would correlate with a series of works undertaken c1915. The kitchen chimney is substantially later, no earlier than c1940. Window W.18 appears the earliest of the windows in the room, with rounded glazing bars (post-Federation joinery). It is possible that this window is a c1930s-40s window. The bathroom windows W.01 & W.02 both have similar details to the c1940s-50s windows in MH29. A cover strip adjacent the door would appear to conceal an addition in the weatherboards. From these points it would seem that a small kitchen wing was built about the time of the First World War and that it was extended and had a chimney added during the Second World War. The bathroom fitout is more recent.
- The verandah enclosure has occurred in two stages. The first stage enclosed 31.12 and may have enclosed some of 31.07, but only the side wall of the latter remains. This first stage uses the same weatherboard as the main building, with a scalloped top edge. This may mean it was contemporary with the main structure, or that it was installed not much later. The verandah would thus

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have had two end enclosures early in its history.

The windows in this section are horizontally proportioned with solid framing and similar glazing bars to the window in the kitchen. The window is likely to date from c1940s.

The concrete slab in the verandah area is likely to date from the 1960s and must have been poured inside the walls.

The second stage is far more rudimentary and would date from the late 1960s, the benefit of which is that the verandah posts have been retained. What were the main building's exterior lining boards in 31.07, 31.09 & 31.12 have been stripped and replaced with AC or FC sheet.

- The fencing of the property was most likely installed in combination with the transformation to Married Quarters c1939.
- The partition between 31.11 and 31.10 is most likely to date from the late 1960s along with a new door (D.16) from the main room 31.08.
- There have been numerous alterations and/or replacement of window sashes. The removal of the glazing bead to transform the 4 pane windows to 2 pane may have been generated by aesthetics, but is more likely the result of poor repair. In one case a large piece of timber has been installed as a glazing bead.
- A carport has been constructed in the rear of the property; aerial photos indicate that these pre-date 1980.
- The roof cladding has been replaced relatively recently with prepainted steel sheet. The south east roof vent has been covered over in the process.

STATEMENT OF SIGNIFICANCE

The Soldier's Institute demonstrates the development of facilities at Middle Head at the latter part of the nineteenth century phase of development, and demonstrates the provision of recreational and educational facilities as the site settled into a regular pattern of use. The building was most likely designed under the command of Colonel de Wolski shortly after the resignation of James Barnet over the Royal Commission into his administration of military sites. De Wolski was an important figure in the development of the site and oversaw a number of the building works.

The Soldier's Institute is a representative example of a Transitional vernacular building demonstrating the changing architectural expression from the Victorian to Federation periods. It has largely intact and high quality interiors, and features early detailing along with some good quality Federation and Interwar features. Set on the highest point of the site with what was the most commanding view of the harbour entry, the building played an important role in military surveillance.

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POLICY

Potential Uses

RESIDENCE

The building is presently used as a single residence. The original layout has not readily transformed into a residence and the use has required the partitioning of the large volume of an original space (31.11 & 31.10) and the provision of smaller bedrooms in the enclosed verandah.

The use as a residence, while adequate, does not reflect the purpose for which the building was designed or is most suited. In the housing shortages that followed WWII it was a necessary and appropriate use. The two large rooms with cathedral ceilings were designed as public spaces, as recreational and educational facilities for the military personnel and uses that recover this connection are preferred.

The partitioning of the large volume, the enclosure and the partitioning of the northern verandah restrict the appreciation of the building. The building is capable of interpreting important aspects of the history of life on the site.

OFFICES

The building would be suitable for office type accommodation. The large spaces could be used as open plan offices, the smaller rooms as individual offices or support spaces. Minimal change to the significant fabric would be required to facilitate the use.

EDUCATIONAL/INTERPRETATION/CONFERENCE FACILITY

Use as some form of educational, recreational, interpretational, public or conference type would be appropriate to reflect the significance of the place. The building could be configured to contain two large teaching / seminar / interpretation spaces, two support spaces, a kitchen, amenities, a large open outdoor space, and a possible site for car parking nearby, the building would be well suited to a range of uses.

Some of these uses can produce income for the service (residential, conference, training). Any form of public use such as interpretation, museum, or visitors' centre will allow the interior to form part of the interpretation of the site.

Elemental Analysis

The fabric elements contributing to an understanding of the building's cultural significance are to be conserved. These include:

- The original form, layout and materials of the c1892 structure
- Main floor structure and original lining
- Original stud wall framing and boarded wall linings
- Original doors, windows and hardware including those modified
- Chimneys and original fireplace, including face brick finish externally
- Roof framing and boarded ceiling linings, including any early battening
- Original remnant verandah framing, beams and posts

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- The c1915 additions, possibly including the remnants of the earlier verandah enclosures
- Door D.01
- The three centred arched opening

The fabric elements that are less essential to the significance of the building, but do not detract from the significance that may be retained or removed include:

- The fireplace surrounds and mantle in 31.08
- The painted steel roof cladding
- The 1940s additions and windows
- The 1940s chimney
- The salvaged elements in the shed structure
- The site fencing

The fabric elements that have some negative impact upon the significance of the building, but should only be removed if the selected use required it include:

- Later doors not located in dividing partitions
- The enclosure of the south east roof vent
- Modified elements of original windows
- The verandah concrete slab
- The carport structure
- The external hot water unit
- The flooring repairs and patching
- The damaged sewer vent pipe adjacent 31.02
- The kitchen external screen door

The fabric elements that are endangering or obscuring the significance of the building and need to be removed, repaired or upgraded in order to protect the building and ensure its ongoing use include:

- The guttering and downpipes, presently failing
- The FC clad sections of the verandah enclosure and adjacent shed
- The dividing partition in 31.11 & 31.10
- The tree sited too close to the building at 31.07

Adaptation

There are no adaptive works required for this building to facilitate most uses; the predominant changes are restoration (the removal of intrusive elements) in order to reinstate significant aspects of the design. All uses will require upgrading of services for smoke detection.

Car parking has been treated as a site issue and forms part of the main document.

Immediate Site Curtilage

The fence line and the edge of the encroaching bushland largely define the curtilage of the building. Re-establishment views to the harbour from the front verandah

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would be desirable as the building is clearly sited to address these views. Recovery of views will enhance the understanding and significance of the place.

The close relationship of the building to Battery Road is important to maintain.

CONSTRAINTS

BCA Constraints

The building is a single storey building with no fire source features nearby, except for the general risk of a bushfire coming up the slope. Any use would thus require Type C construction. At present the use as a single residence does not require any fire resistant construction. A change to a public use would not increase this requirement.

FIRE RESISTANCE

The building complies with the requirements of Type C construction.

COMPARTMENTATION AND SEPARATION

The building offers no compartmentation.

PROTECTION OF OPENINGS

The openings are not required to be protected.

EGRESS

The egress provided is at present suitable for a single residence.

Use as a public building or conference facility would require removal of some of the later partitioning. The opening up of the verandah would greatly increase the egress.

ACCESS FOR DISABLED

Disabled access would be required if the building were to be converted to a public use.

The building has a change of level at each door from the main floor. The present 'front' door is not a promising avenue for disabled access. A far better potential is to provide a suitable ramp at one of the French doors should the verandah be opened up.

It is not possible to include a disabled toilet in the present building and this needs to be dealt with as a site issue.

FIRE SERVICES

Any Class 1 building will need smoke alarms in accordance with Sect 3.7.2 of Volume 1 of the BCA.

Any Class 2 or 6 building will need to install fire extinguishers in accordance with Clause E1.6, and a smoke detection system in accordance with Spec E2.2a of BCA Vol 2.

AMENITY ISSUES

The rooms are all well sized, lit and ventilated with the exception of the larger rooms that are a somewhat under the minimum ventilation requirement since the verandah

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was enclosed. In practice borrowed ventilation can make up the difference by opening the outer doors, but this would only be suitable for a residence. The room originally depended on the ceiling vent, but these have now been blocked up internally and externally at one end.

Whilst there was no evidence of damage, there is some concern about the lack of sub-floor space in the building, given that water sits on the surface in this part of the site. The flooring may be well supported and protected, but it is worth investigating.

ANCILLARY REQUIREMENTS

The building is regarded by *AS3959 – Construction of buildings in bushfire prone areas* as being in a bush fire prone area (atop a steep hill with a National Park below). A fire break mediates this risk and it would need to be assessed in detail. The BCA references this Standard and makes compliance mandatory for Classes 1, 2 and 3 buildings. This includes any residential use. Fire protection strategies are a common feature of NPWS properties and recommendations thus fall outside the scope of this plan.

SPECIAL USE REQUIREMENTS

The building is unlikely to fall into this category.

MAINTENANCE ASSESSMENT

Urgent Work: 0-1 year

- Remove guttering and downpipes and replace with quad profile to match roofing (refer to Appendix L for compatibility issues). Connect to stormwater lines
- Repair damaged sections of external cladding and make good external envelope
- Trim tree overhanging 31.07

Medium Term Work: 1-3 years

- Provide site drainage
- Inspect sub-floor framing condition
- Paint shed exterior

Long Term Work: 3-5 years

–

Optional Interpretative Works

- Remove partition in 31.10/11
- Remove FC clad enclosure of verandah and make good verandah framing
- Remove FC lining to former external wall in 31.07, 31.09 & 31.12 and provide timber weatherboards to match original
- Reopen ceiling and roof vents and make venting system operable
- Reconstruct modified windows to original four paned configuration
- Remove mismatched flooring and repair with matching boards

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MQ10

- Remove verandah slab and provide timber decking or open paving

Cyclical Maintenance

- Clean down external timber elements every year.
- Paint external timbers every 7 – 10 years – ensure sufficient time to allow double hung windows to dry without sealing shut
- Clean gutters every three months.
- Clean windows at six monthly intervals.
- Inspect building for termite activity every six months.
- Check downpipes for blockages annually. Water seepage can be the most destructive element to building materials.
- Clean clear finished timber annually. Refinish trafficable timber surfaces with tung oil every two years, with increasing frequency for high traffic areas.

SKETCH

MH31 SOLDIER'S INSTITUTE: Amenities / Possible Configuration

SCALE 1:200



Fig MH31.28 In the event of a selected use that requires public toilets, this plan indicates a possible configuration that is confined to a less significant space. PAUL DAVIES PTY LTD 2002

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Building Name:

Former Guardhouse

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Site Plan

No. 1

LOCATION PLAN



Fig MH32.1 Site Plan showing Guardhouse relationship to Middle Head Barracks Precinct. Based upon survey drawing CEN 1515 - 1960 and overlaid with aerial photograph and site measurements- PAUL DAVIES PTY LTD 2002

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PHOTOGRAPHS



Fig MH32.2 Corner view of Guardhouse showing the curved valance feature balcony with lined rendered walls. The gabled form is intact. PAUL DAVIES PTY LTD 2002



Fig MH32.3 A distant view showing the new and old sections of the building in context. At present a large container is located very close to the rear of the building. PAUL DAVIES PTY LTD 2002



Fig MH32.5 The lightweight additions are flush with the external wall of the Guardhouse. The adjacent shed impacts upon the building curtilage. PAUL DAVIES PTY LTD 2002

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Fig MH32.5 A signal tower of some form appears to have been in this location since the 1890s. Whilst it is desirable to remove them from an aesthetic perspective, the towers are potentially significant and further research is required to determine the history of this particular use.

The overgrown vegetation at the rear of the Guardhouse needs to be cleared as part of the opening up of the moat lines. PAUL DAVIES PTY LTD 2002

DRAWINGS



Fig MH32.6

Measured plan of existing building. PAUL DAVIES PTY LTD 2002

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HISTORIC PHOTOGRAPHS



Fig MH32.7 Crew with cannon in front of Guardhouse c1892. The building is face brick, has a chimney, and in detail one can see the two thin windows in the wall under the verandah. NPWS Slides 1892



Fig MH32.8 A side view of the Guardhouse shows quality face brick wall and a delicately detailed barge board. The roofing was corrugated iron. NPWS Slides 1892



Fig MH32.9 A distant view of the Guardhouse showing a finial in the barge. There does not appear to be a road or drainage channels at this point. NPWS Slides 1892



Fig MH32.10 Another oblique view showing the west window opening and extent of the verandah. The supervisor stands under the verandah. NPWS Slides 1892



Fig MH32.11 Looking at the Guardhouse across the early timber bridge entry to the site. NPWS Slides 1892

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BUILDING DESCRIPTION AND CONDITION

Description

The former Guardhouse is a four room structure with an externally accessed attached toilet. The two main rooms are constructed with solid double brick walls with a timber framed pitched roof with two gabled ends. The timber floor is clad with resilient flooring. The external walls have been rendered and lined in imitation stonework, the main internal room is rendered, and the other original room is painted brick. The roof and verandah roof are clad with corrugated asbestos sheeting, and the gable end walls have evidence of circular vents.

Two additional stud framed rooms have been added to the south façade and are clad with FC sheet. The building has two original doors and three original window openings, two of which are long and thin. The original doors are ledged and braced, and are quite heavy in keeping with a security function. The windows display a number of joinery profiles. A large window and two door openings have been cut into the early walls. These openings have been introduced after the rendering of the walls. The new doors are flush solid core doors in metal frames, except for the partition and rear external doors, which are hollow core. The addition's windows are a double awning type, except for one fixed pane (W.07).

The building has a verandah to the north and west faces framed in timber with a curved timber valence, and sits on a stone perimeter wall that is infilled with bitumen. The verandah is timber framed on stop-chamfered posts with no soffit. The south end of the western wing has been extended to accommodate the toilet, and a timber boarded screen has been erected at this end. The toilet is a single skin structure on a concrete slab floor. The verandah framing displays no evidence of early joinery techniques and the timbers vary between chamfered edges and square edges. The verandah framing predates the rendering of the walls.

A perimeter drain runs around the north and west sides of the building. The adjacent services building's entry level is slightly higher than the verandah and is a source of stormwater runoff. There is significant plant growth between the two structures.

Roof Framing & Cladding

Material: The roof of the original part of the building is a simple gable end pitched roof at approx 30°. It is traditionally framed with rafters and ridge beam. The battens are spaced at approx 600mm. The roofing material is corrugated asbestos sheeting with asbestos sheet ridge capping. The gabled ends are finished with a large but simple barge board and a timber barge cap. The top plate of the wall projects out from the gable ends like an underpurlin, it has decorative beaded corners. The soffit of the gable end projection is finished with approx 6" (150mm) beaded boards. The fascia is a simple strip with a large bead at the bottom edge. The eaves soffit is also made of beaded boards with ventilation panels of perforated masonite (or FC?).

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The roof on the additions to the rear is a kliplok type profile at a very low pitch. It is likely to be a colorbond material.

The verandah roof is set below the main roof at approx 15°, and is flashed into the brickwork with what appears to be painted lead flashing. The framing is a simple system of rafters spanning between a blocking piece bolted to the walls, and a verandah beam spanning between posts. It is lined with corrugated asbestos sheeting. The verandah has a large curved decorative timber valence.

The roof to the toilet addition is an extension of the verandah roof and where it projects beyond the building a matching hip turns the verandah roof into a gabled end.

The gutters are presently a quad profile, either from painted galvanised steel or colorbond. The downpipes and spreaders are a rectangular profile. The downpipes are not connected to a stormwater line, but discharge onto the ground or into an open drain.

Condition: The roof framing to the main building appeared in good condition. The corrugated asbestos roofing to both the main wing and the verandah showed numerous areas of broken sheeting and some of the fixings have failed. The barge boards at both ends of the building are damaged. The gabled end soffits appear in good condition, but the eaves soffits are damaged, and all the soffit vents are in very poor condition. The rear additions roof could not be inspected. The rear gutters are missing.

The framing for the verandah appears to have been reconstructed, the junctions are very simple and in some cases have opened up, and a number of the framing members have been replaced with modern elements without traditional stop chamfering. There is some damage at the rafter column junction on the exposed ends.

Floors

Material: The floors throughout the building appear to be timber framed with timber boards. The floors are presently finished with linoleum type resilient flooring. There is no inspection hole to inspect the sub-floor, but from external assessment it would appear to be adequate. There are cast iron grille sub-floor vents to the main rooms. The main entry threshold has been infilled with concrete, possibly because the stone threshold had worn down.

The verandah deck is constructed from a low stone perimeter wall that is infilled with a bituminous topping over what appears to be earth, but may incorporate a slab. There are a few items set into the bitumen, use unknown.

The verandah has been extended to include the toilet addition to the south; this area is formed from a slab on brick footing walls.

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Condition: Generally the floors appear sound, but further investigation would be needed to determine the boards' condition. The removal of the cell walls may have left remnants in the flooring finish.
The verandah bitumen is in poor condition with numerous holes, dips and concrete patching.

Walls – external and internal

Material: The original section of the building is made from double brick walls without a cavity in an English Bond pattern. The walls have been subsequently rendered and lined externally, but areas show the bricks were an early reddish standstock. The external render is a sandy soft render without the dark grey of high cement content. The lining is in imitation stone courses of about 330mm, but does not attempt to imitate lintels and sill courses. Changes in the render indicate that the new window and door openings postdate the render, but that the render was applied after the verandah framing.
The gabled end vents have been covered over.
The base of the external wall is a stone plinth up to floor level.
Internally the first room has been plastered, whilst the second has painted brickwork. A panel of plastering in the first room is the only remnant of the fireplace and chimney. In the second room it is clear that there have been numerous changes to the wall and its openings. The joints have been struck differently and the pattern of brickwork changes in the infilled areas.
The rear addition is constructed of thin stud walls with FC sheeting with timber cover strips on top of brick subfloor walls.
The toilet addition is constructed from a single skin brick wall.

Condition: There are some small areas of damage in the external rendered walls, but in the main the render is in good condition. There are numerous remnant fixing points from fittings and bars since removed. There is a switch board on the western wall, and numerous service pipes and conduit puncture through. There are some cracks in the render of the toilet walls externally.

Internally the rendered room is in relatively good condition, although the paint has been applied over a deteriorated surface. The render around openings is clearly distinguishable from the main wall areas. The painted brick room is of lesser quality, mainly due to areas of patched render, different areas of brickwork patching, and painting over poor surface preparation.

The stud wall additions are generally in good condition, although externally there are some areas of impact damage, lichen growth and the corner strips and opening trims are damaged in some areas. There are large service fans and the like penetrating the walls.

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The screen wall boarding associated with the toilet area is irretrievably rotted and in need of replacement.

Ceilings

Material: The ceilings in the original part of the building have been changed to FC sheeting with cover strips. There is an access panel in the first room. The additions also have FC sheeting with cover strips. There are no soffits to the verandah or toilet areas.

Condition: The ceilings are in generally good condition with some services penetrations.

Doors

The main entry door (D.01) is a 45mm thick ledged, braced and framed timber door with thin beading. The thick timber frame is set into a socket in the wall and sits behind the line of render. It is possible that this arrangement indicates that it was not intended to have architraves. The door's lock is presently inoperable and is locked by means of a barrel bolt. There is a shadow of a medium sized rectangular Victorian rimlock on the door, and the keeper has been removed.

The second door (D.02) is a 50mm thick ledged, braced and framed door with thin beading. Its frame is identical to D.01. There is a shadow of a very substantial rimlock on the door that indicates a security function, the keeper of which is still intact on the frame.

Doors D.03 and D.06 are solid core flush doors in metal frames with modern locks. Doors D.04 and D.05 are hollow core doors with modern handles.

Windows

W.01 is a timber framed 12 pane double hung window. The joinery profile is a smooth segmented glazing bar, which would indicate a post Federation date. The window has a stone head and sill.

W.02 and W.08 are both long and very thin windows. W.02 is a timber four pane double hung window with matching sashes, whilst W.08 is an uneven double hung window with a two pane bottom sash and a very small upper sash. The joinery detail of W.02 matches W.01, but W.08 displays two different profiles in each sash, neither matching the other windows, and neither fitting a Victorian typology. Both windows have stone heads and sills. It would appear that all original joinery has been changed. Window W.02 has a large vertical bar outside to prevent entry.

W.03 is clearly not an original opening, and the double hung timber sashes have only one horizontal glazing bar, the proportions of which would indicate it post dates WWII. It has a thicker glazing bead. Steel or iron bars have previously protected the window, now only a remnant remains in the wall. This has been replaced with a more recent set of steel bars.

W.04 – W.06 are twin awning timber windows. These windows are unpainted and in relatively poor condition.

W.07 is a fixed pane of glass.

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Fittings

The rooms have a number of workshop type fittings, benches and wall panels. There is a kitchenette 32.03 with a sink.

Electrical Fitout

The building has an electrical switchboard mounted on the external face of the west wall. This seems largely associated with a fire detection system. There is surface mounted conduit throughout the building and most of the switches and power outlets are recent.

The lighting consists of fluorescent troffers. There are substantial exhaust fans in the workshop to effect dust extraction installed in 1998.

A remnant bell system and very old conduit serves the lights in the verandah. This system does not appear to have operated for some time and the points are extremely rusted.

Plumbing and Drainage

The toilet facility is an addition, although likely to be a relatively early one. The toilet has a high level cistern, and the basin has been installed in the screened area of the verandah. The rotting timber in the screen may be due to plumbing leaks from the basin.

The site drainage consists of a concrete perimeter drain to the north and west serving the downpipes. The system does not appear adequate in heavy rain, and water ponds at the south of the building. The lack of a rear gutter contributes to this.

Immediate Site Context

The building sits alongside one of the main routes into the site, and as such is in an extremely prominent position. Grassed areas largely surround it. To the immediate east stands a storage shed that impacts upon its immediate curtilage. In addition, the area between the shed and the building is presently used as a loose store, and is overgrown with weeds. In addition to being a poorly presented area, the plant growth may be contributing to the breakdown of the external wall through damp.

To the west of the building are the entry gates and the remnant stone wall. To the south is the moat, now covered over and seriously overgrown.

HISTORICAL BACKGROUND

MH32 is the only brick building remaining on the site, a material consistent with its original purpose as a lock-up. An early sketch (Fig MH32.13) shows the original configuration of the structure, and makes sense of the otherwise odd window positioning. A reconstructed drawing is shown in Fig MH32.12.

The guards' room is oriented to address the moat bridge, while the detention room (once two cells) is adjacent. The 1892 photographs (Fig MH32.7-11) show a neat brick building with a water tank to the south. The roof is decorated with finials and the verandahs display curved valences.

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The 1934 conversion of the building to a PMG wireless monitoring station seems to have brought about the first significant changes to the building

HISTORIC DRAWING



Fig MH32.12 Plan of original section of building with original openings and features. PAUL DAVIES PTY LTD 2002

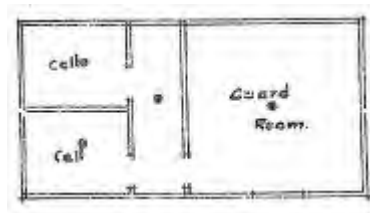


Fig MH32.13 Early undated sketch of building. FA160 T43

STATE THEMES

Communication
Defence

FABRIC CHANGES

The original building is likely to date from the late 1880s.

- The building was initially built as a main room with a corridor and two cells, in face brick with a corrugated iron roof and central brick chimney. The front room had a front door, a connecting door into the cells, a fireplace and a western window. It appears to have been plastered.
- The corridor was relatively narrow (970mm) and had two slit windows at either end.
- The cells were very small and each had one very thin window. The doors to the cells, like D.02, would have been thick ledged doors (or something more solid) with heavy rimlocks. The interior of the cells was painted or face brick.
- The building was constructed with a verandah on the north and west faces.

The first changes appear to date from the 1920-30s. The building was transformed to a Post Master General's signalling station by 1934.

- The cell walls are likely to have been removed to suit the new function. Extensive areas of brickwork show that this was a serious intervention into the interior space, one that has damaged the brickwork irretrievably. This may have been the justification for rendering the building.

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- All the window joinery was replaced. The thick rounded glazing bead profiles are a post Federation profile, perhaps from the 1930s. The fact that the sash types do not match, and the profiles are all different may indicate a series of window replacements. The architraves (if there were any) are likely to have been removed and replaced at this point.
- It is also possible that the toilet was added at this time, although high level cisterns were in use into the 1960s. The basin would appear to predate the 1950s.
- The building was rendered before 1942, (most likely in 1934) it seems before the front window was removed for a larger window (as there are marks that show render repair around the window). This change may have been a cosmetic solution to the condition of the early (and thus soft) sandstock brickwork, but is likely to have been caused by the works to remove the cell walls. The render is a relatively soft, light coloured sandy texture that predates the early days of Portland cement when the render would have been very hard and dark grey. It is likely to date from before the war.

It would appear that shortly after World War II (i.e. 1945-50) the building was significantly transformed.

- The easternmost slot window was removed and replaced with a large timber double-hung window with a horizontal proportion of panes. Horizontal proportions came into vogue in the late 1930s, but the proportions are quite awkward and do not appear to date from before the war. This window removed the sandstone head and sill of the original window. Bars were most likely installed at this time.
- At approximately the same time the corrugated iron roofing was replaced with corrugated asbestos sheeting. This modification included the verandah roof and may have coincided with the rebuilding of the verandah framing. The rear toilet must have existed at this time as the roofing was extended to accommodate its covered access, and the external render is the same type as for the main building. The fascia, barge boards and guttering are also from this period and do not have the delicate detail of the c1892 photograph. The gable end vents were most likely filled in at this point.
- The chimney must have been removed before the replacement of the roof, as there are no signs of patching in the roof. A patch of rendering in 32.01 is the only remnant of the chimney.
- It is also likely that the ceiling was replaced with FC sheeting at this time. From other buildings on the site, the most likely original ceiling material would have been beaded boards (as seen in the building's soffits).

The rear addition is not shown on a 1960s plan, and is likely to date from the 1970s or later.

- The rear additions involved cutting two new doors into the south wall, one in place of a tall thin window; the other may have been a window opening. Both doors show signs of render repairs well above the head of the opening, in one

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case clearly to cover the removal of the stone window head. The doors are framed with metal jambs.

- The entire structure of the rear addition dates from this point.

STATEMENT OF SIGNIFICANCE

The Guardhouse demonstrates the development of facilities at Middle Head, and in particular the need of the growing facility for a lock-up and workroom for the site's guards. The timeframe for the design of the Guardhouse would strongly suggest that it came from the office of Colonial Architect, James Barnet, one of the most prolific and significant Victorian architects in the State's history. However, as a rudimentary structure designed late in his career, it is likely to have been the product of one of the architects in his office.

The Guardhouse is a representative example of a small late Victorian building designed as a secure building, with remnant features that indicate the presence of the removed cells. As the only brick building remaining in the precinct, it is the symbol of authority and solidity on the site. Along with the Sergeant Major's Quarters, the building demonstrates that the site was well established by the end of the 1880s.

POLICY

Potential Uses

STORES BUILDING

A main function of the present use for the space, the building could easily continue in use as a store building.

This use is not compatible with the significance of the site as a whole. The Guardhouse was an important element on the site; its location indicates that it played a fundamental role in the entry to the military barracks. The ability to relate to the site as a whole requires an ongoing interrelationship between the main buildings, and the Guardhouse should ideally continue to have a role related to the site entry.

In addition, the building is a robust and attractive building with some remnant elements that are immediately evocative of its history (the slotted windows, gabled form and curved verandah valences) and to use the building as a store would not make use of the interpretative potential available in the structure.

The building is presently used for small item storage. Heavy vehicles should not be associated with the movement of stores, as this will impact upon the setting of the building. The present haphazard storage of material around the building contributes to the degradation of the building's setting.

WORKSHOP

Another main aspect of the building's present use is as a workshop. This use has little impact upon the significance of the fabric and could continue. This use would fit with varied uses for the rest of the site as a whole, but would not provide public access.

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This use undervalues the building's potential, and as a robust function is unlikely to result in any upgrading of facilities or the requisite care for the fabric elements. It also offers little opportunity for interpretation.

Associated functions may have the potential to degrade the setting of the building, depending on how they were managed.

OFFICE

The building has a third function at present, that of an office. This use could be expanded and the building be converted for office use.

The building offers four rooms with a toilet facility. The circulation is not ideal, each office would need to be accessible through other offices, but a low key use could be accommodated relatively easily. The quality of Rooms 2, 3 & 4 are not high as a long term working environment, but as a base for someone who has a role working outdoors they would be satisfactory.

This use would justify an upgrade and rationalisation of services, and would encourage the damaged elements of the building to be repaired. With a low level use, this function would have little to no impact upon the significance of the structure, and would improve the fabric.

It would not offer public access for the interior of the structure, and could not contribute this aspect to the interpretation of the site.

RESIDENCE

Transforming this structure into a residence is undesirable. Providing adequate amenities and kitchen spaces would impact dramatically upon the character of the building. The layout of the plan does not offer good circulation, or desirable living and sleeping areas.

This is not a suitable use for the structure.

RETAIL

The building has potential as a small retail space, but this use may conflict with the objectives of the National Parks Act unless operated as a NPWS outlet. The number of people visiting the site may preclude a viable retail establishment.

This use would offer a public face for the structure, and could contribute to the interpretation of the site.

GUIDES OFFICE/INTERPRETATION SPACE

The Guardhouse's role as the point of entry to the site can be interpreted by a similar role today. The Guardhouse could provide a starting point from where the site could be explained and interpreted before being explored. It is ideally sited to perform this function.

The building is well arranged for such a function. It is a compact building, and using it as an interpretation centre and guide's office will not impact greatly upon the accommodation potential of the site as a whole. It has a formal room at the front as a point of welcome, providing a comfortable space for display material, and as a place to sell booklets and promotional items. It has a second room that is itself an

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evocative space that contributes to an understanding of the period, which could be used for more permanent displays, video presentations and the like. It then has two further rooms that can provide offices if there were such personnel as guide or interpretive staff, adequate storage for such possibilities as guide and shop materials, and a small kitchenette. It also has a toilet facility.

The building has potential as the publicly recognisable face of the Middle Head Precinct as a simple and compact Victorian building with an elegant verandah. Use as an interpretation centre may, in the long term, justify reinstating the two slit windows that were once located at W.03 and D.03 to improve the sense of the original purpose of the space.

Elemental Analysis

The fabric elements contributing to an understanding of the building's cultural significance are to be conserved. These include:

- The external sandstock double brick walls that form the original rooms of the building
- The original openings, frames, sandstone sills and heads of W.01, W.02, W.08, including the security bar on the smaller windows
- The original openings, frames, ledged doors, remnants and shadows of locks of D.01, D.02
- The gabled roof form and timber framing, remnants of openings in gabled ends, projecting wall plates and remnant beaded soffits
- The verandah form, verandah beams, posts, valences, and original framing members, the sandstone perimeter sub-floor wall, remnant fixtures in bitumen topping
- Render indicating position of former chimney
- Ceiling framing
- Rendered finish in 32.01, and painted brick finish in 32.02
- Floor framing, any original intact flooring, iron sub-floor vents, any indication of the removal of the cell walls.
- Remnant rusted alarm system on external wall adjacent main door – likely to be from the military use of the building

The fabric elements that are less essential to the significance of the building, but do not detract from the significance that may be retained or removed include:

- The lined render to the external walls (as this is unrecoverable due to the changes to the external wall)
- New openings W.03, D.03, D.06 including new doors and locks – W.03 and D.03 replaced original thin slotted window openings
- Modified timber sashes in windows W.01, W.02, W.03, W.08
- The concrete perimeter drain
- The toilet addition and external basin, including extension of verandah slab and roof framing

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- Reconstructed elements in verandah framing
- The FC sheet ceiling
- The linoleum flooring

The fabric elements that have some negative impact upon the significance of the building, but should only be removed if the selected use required it include:

- The rear stud framed 32.03 & 32.04 including roof and floor framing and cladding, all windows and doors, fitout and services. At present the windows in this section are in poor condition and have the potential to cause damage to the building. The guttering has also been removed and the stormwater is uncontrolled as a result
- The workshop fitout items such as tool hangers, benches and furniture elements
- The existing electrical, fire and other services in the building, which may be largely redundant – those that have a direct relationship to a significant period in the history of the building (such as military surveillance or Post Master General's office) should be retained
- The screen door to the main entry, and concrete infill of threshold
- The adjacent stores shed impacts upon the immediate curtilage of the building
- The covers to the gable vents detracts from an understanding of the building's original form
- The bars on W.03 are not original, and are unlikely to be necessary in the future.

The fabric elements that are endangering or obscuring the significance of the building and need to be removed, repaired or upgraded in order to protect the building and ensure its ongoing use include:

- The loose stores and plant growth between the building and the adjacent store could contribute to damage of the external wall due to damp, and detract from the presentation of the building – plant growth should be kept from the immediate perimeter of the building
- The sapling growing between the stud framed addition and the back wall of the toilet will eventually cause significant damage to the building if not removed
- The immediate site drainage is presently inadequate and needs to provide a means to prevent water ponding in the area around the building
- The bitumen paving is sufficiently damaged to impede access if converted for a public use, a uniform surface is necessary and can incorporate equitable access requirements
- The asbestos roof sheeting on the main roof and verandah is damaged and failing to weatherproof the building, in addition the asbestos failure poses a potential threat to public safety. It should be replaced with a material in keeping with the original material –corrugated iron roofing. This will provide an opportunity to replace the damaged barge boards, fascia and soffit vents

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with finishing members that are in keeping with the scale and detail of the 1892 photograph

- The rectangular downpipes and spreaders are an incompatible element on the building and should be replaced to match those shown in the 1892 photograph. The detail of the roof edge would also be improved by returning to the original ogee gutter profile
- The exterior of the building needs to be cleaned and repaired, there are insect nests, damaged areas of render and wall sheeting, cracking, rotting cover strips, lichen growth and various redundant service holes and the like that detract from the presentation of the building
- The timber screen boards around the basin are irretrievably rotted and need to be replaced with like material. The cause of the rot needs to be investigated and repaired

Adaptation

The adaptation works depend ultimately upon the type of use. The main difference in works to the building depends largely upon whether the building has a public use.

A public use will require an upgrade of equitable access (such as a ramped entry), complying egress (such as locks), a rationalisation and improvement to the electrical and fire services, and will generate a desire for a better presentation for the structure and such things as improved lighting and fixtures.

A private and utilitarian use will require work on only those things that are identified as being urgent works to protect the building. Any upgrading works will be dependent upon the type of use. An office use would require some upgrading of the electrical system, and changes to the fitout of the building.

An interpretative use may eventually lead to the desire to recover some of the lost significance of the building. Things that could be achieved include the reinstatement of the original long thin window openings in 32.02, and if the rear additions were redundant they could be removed and the building made good. The cell walls could be interpreted by lightweight partitions, panels, or if the means were available, reconstruction.

The reinstatement of the fireplace and chimney is unlikely to ever be feasible, and the removal of the render is not encouraged as the brickwork has almost certainly been degraded by the changes to the openings, and would most likely be damaged in the process.

Immediate Site Curtilage

Recent structures in the immediate vicinity of the building detract from the character of the site and downplay the important role of the main buildings and their interrelationships. The adjacent stores shed has an impact upon the setting of the Guardhouse, and it is desirable to relocate the structure to a less significant location on the site.

Care should be taken in the location of carport structures. They should not be too close to the main structures and should be as lightweight as possible. Ideally, car

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parking should be centralized in areas away from the buildings, but sometimes this cannot be achieved.

The relationship of the Guardhouse to the roadway and the entry to the site is critical to its significance and needs to be maintained. The sense of enclosure by the site perimeter walls and moat structure is also critical to the broader understanding of the site. At present the area immediately behind the Guardhouse is severely overgrown and obscured and needs to be cleared.

CONSTRAINTS

BCA Constraints

The building, as a single storey, small structure with few fire source features is not required to have a high level of fire safety measures.

FIRE RESISTANCE

Whilst the building has timber framed elements, its basic structure is well protected against fire damage. The double brick walls provide a high level of protection, and the FC clad walls are non-combustible. There are also few fire source features to the building, other than the immediate store shed. The asbestos roofing would prove a hazard in a fire.

COMPARTMENTATION AND SEPARATION

The building has a high level of compartmentation. The interconnecting doors are all thick, solid timber doors, two of which are in metal frames. There seems to be no real advantage to this in such a small building.

PROTECTION OF OPENINGS

There are no openings at risk.

EGRESS

As a small building, the egress is adequate. The doors all swing the correct way provided the entry doors can be held open. The locks do not comply, and if a public use is contemplated then they will need to be changed.

ACCESS FOR DISABLED

A public use would require the building to be made accessible for people with a disability.

Neither entry point complies with disabled access requirements. The front door has a step and the rear door has a number of steps. Repairs to the bitumen verandah surface could incorporate a complying entry point with little impact upon the built fabric. All but one of the internal doors would allow equitable access.

The toilet cannot be made to comply, and this issue is best resolved for the whole site not individual buildings.

FIRE SERVICES

The building appears to have a fairly substantial early warning system, complete with a large evacuation sign. The purpose of this has not yet been determined and it is not certain if the system still operates.

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For a public building the rooms should have a smoke detection system, dependent upon the type of use.

AMENITY ISSUES

The toilet and basin provides a suitable level of amenity to such a small building and would be sufficient for a public use of the structure.

The windows will need to be operable to provide adequate ventilation for the rooms.

There appears to be adequate sub-floor ventilation, but this would need to be checked, as there is no access point. As the walls have no cavity and the building is unlikely to have a DPC, the subfloor ventilation is important to minimise damp and termite attack. An access point is important to monitor the sub-floor condition. The site drainage and roof repairs should also be attended to for this reason. At this point, no evidence of deterioration due to damp was noted.

SPECIAL USE REQUIREMENTS

The building is unlikely to fall into this category.

MAINTENANCE ASSESSMENT

Urgent Work: 0-1 year

- Remove loose stores and plant growth from area between store shed and building
- Remove the sapling growing between the stud framed addition and the back wall of the toilet
- Provide stormwater drainage lines and aggregate around perimeter of building to drain to lower areas – protect soil from runoff damage and erosion
- Clean external face of building, remove insect nests
- Repair cracks and damaged areas of render
- Repair damaged areas of external cladding
- Replace rotting cover strips
- Provide quad gutter to rear addition (note that whilst it is not NPWS policy, the roof profile in this location is likely to be Lysaughts Brownbuilt profile, refer to Appendix L for compatibility requirements).
- Prepare and paint windows to rear addition, make operable and weather tight
- Replace screen timbers around basin in verandah and repair any plumbing leaks
- Provide main entry door and rear external door with a modern rimlock that provides egress from the inside at all times.
- Clean and repair internal finishes

Medium Term Work: 1-3 years

- Remove and replace bitumen paving incorporating a ramp for equitable access at main doorway to AS1284.1 if adapted to public use
- ROOF REPLACEMENT WORKS
Remove asbestos sheeting to roof and verandah roof in accordance with EP&A

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH32	Former Guardhouse	Site Plan No. 1

and OH&S requirements.

Remove gutters and downpipes.

Remove damaged barge boards, fascia, and soffit vents.

Retain beaded board soffits and beaded wall top plate/purlin.

Check condition of roof framing and battens and repair where required.

Replace roofing with heavy duty galvanised sheeting (such as Custom Blu-Orb).

Replace barge boards with profiles as shown in 1892 photograph.

Replace fascia with 19mm boards with 9mm bead at bottom edge.

Replace timber barge capping to match 1892 photograph.

Provide ogee guttering and circular downpipes as shown in 1892 photograph (refer Appendix L for selection). Leave unpainted. Provide galvanised steel tubing at base to protect from impact. Provide direct connection to stormwater lines

Provide R2.5 insulation to roof space.

Reinstate gabled end vents and make good wall.

- Conserve rusted bell and alarm device on external wall adjacent entry door
- Remove and replace screen door to main entry door. Remove concrete infill to threshold and indent suitable hard-wearing sandstone or alternative
- Remove redundant service pipes and conduit and make good walls where required
- Relocate adjacent store shed to alternate position on site. Demolish slab. Make good landscaping and drainage
- Depending on use - remove and replace fitout items
- Depending on use - remove and replace redundant services not associated with significant period of development
- Prepare and paint interior walls and joinery
- Remove recent bars to Window W.03. Retain remnants of earlier bars in wall surface, protect from rust with corrosion inhibiting paint

Long Term Work: 3-5 years

- Clear overgrowth associated with moat to south of building
- Remove linoleum floor finish. If flooring suitable, provide clear finish of tung oil (which does not need to be sanded and can be recoated without stripping). If not provide resilient finish. Provide inspection hole
- At this stage a damp proof course appears to be unwarranted - monitor damp conditions
- Replace damaged sub-floor vents with matching cast iron grille

Optional Interpretative Works

- Provide lighting system
- Replace FC sheet ceiling in 32.01 & 32.02 with 150x12mm boards with 3mm bead to match soffit boards. Provide timber scotia cornice. Insulate ceiling to prevent boards cupping. Provide access hole

**Middle Head Historic Buildings
Conservation Management Plan
Building Data Sheet**

Building Number	Building Name:	Other Reference Numbers	
MH32	Former Guardhouse	Site Plan	No. 1

- Reinstall original windows at W.03 and D.03 to match W.02. Estimate position from 1892 photographs. Door D.06 would then become sole access into rear additions
- Install Victorian rimlocks to D.01 and D.02 to match size of shadows on locking stiles. Disable locking mechanisms to comply with BCA requirements.
- Provide interpretation of fireplace in 32.01
- Provide interpretation of the cell walls.
- Replace timber sashes with suitable Victorian detailing – thin windows to be 4 pane double hung, (2 vertical panes per sash) – W.01 to be 8 pane double hung (4 / 4 panes). Do not change present opening of W.03 to a Victorian profile, as it is not original.
- Remove timber architraves to windows. It is likely that the building was designed without architraves
- Remove linoleum floor finish in earlier wing of building. If flooring suitable, provide clear finish of three coats of pure tung oil (which does not need to be sanded and can be recoated without stripping). If not provide resilient finish.

Cyclical Maintenance

- Clean down external timber elements every year.
- Paint external timbers every 7 – 10 years – ensure sufficient time to allow double hung windows to dry without sealing shut
- Clean gutters every three months.
- Clean windows at six monthly intervals.
- Inspect building for termite activity every six months.
- Check downpipes for blockages annually. Water seepage can be the most destructive element to building materials.
- Clean clear finished timber annually. Refinish trafficable timber surfaces with tung oil every two years, with increasing frequency for high traffic areas.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH34

Building Name:

Former Coal Store

Other Reference Numbers

Site Plan: No. 11

LOCATION PLAN

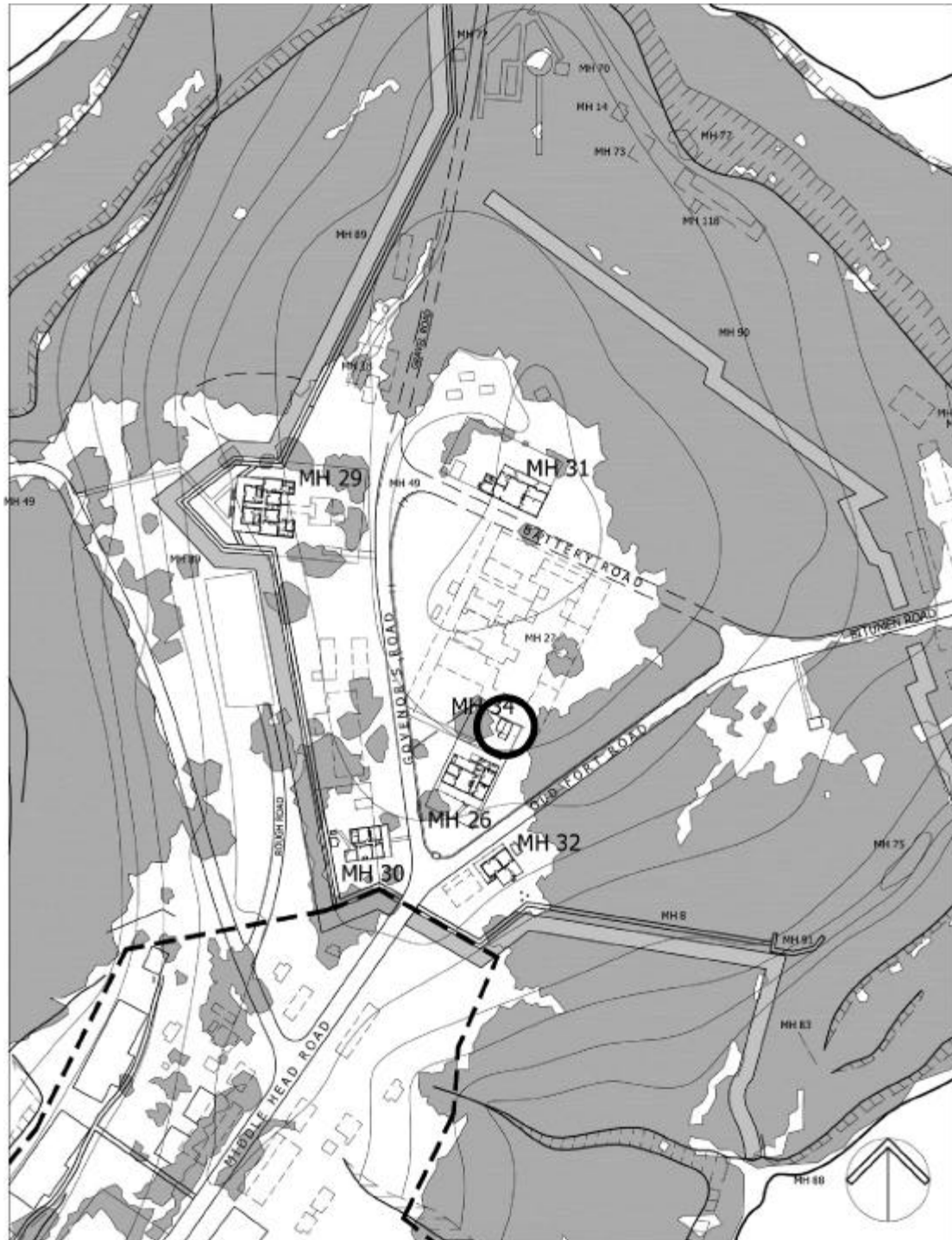


Fig MH34.1 Site Plan showing Former Coal Store relationship to Middle Head Precinct. Based upon survey drawing CEN 1515 - 1960 and overlaid with aerial photograph and site measurements- PAUL DAVIES PTY LTD 2002

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number

MH34

Building Name:

Former Coal Store

Other Reference Numbers

Site Plan: No. 11

PHOTOGRAPHS



Fig MH34.2 Coal store from the north.
PAUL DAVIES PTY LTD 2002



Fig MH34.3 View of coal store in relation to
MH26 - PAUL DAVIES PTY LTD 2002



Fig MH34.4 Photo of front of coal store showing
general structural and cladding failure.
PAUL DAVIES PTY LTD 2002

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Building Number

MH34

Building Name:

Former Coal Store

Other Reference Numbers

Site Plan: No. 11

DRAWINGS

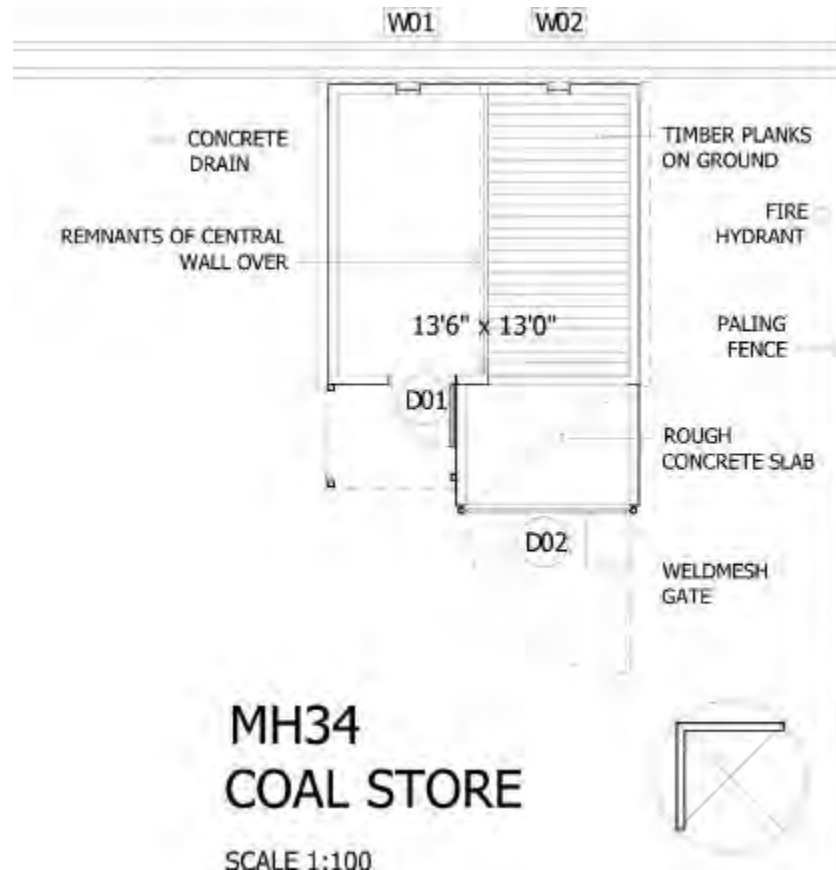


Fig MH34.5

Measured plan of existing building. PAUL DAVIES PTY LTD 2002

BUILDING DESCRIPTION AND CONDITION

Description

The shed is an early building. It is stud framed and lined externally with timber boards. It has a pitched roof from a very low springing point. Originally divided in two, the central wall has been cut away, leaving the building without support. The studs are all notched to the top and bottom plate. The roofing is corrugated iron, but the intact batten spacing is indicative of timber shingles. There are some very small fixed pane windows. A slab has been added at the entrance, and a large woven wire gate now locks the building. The timber ledged door entry is now inoperable due to the structural movement. The shed's overall condition is very poor, the external boards have deteriorated due to lack of paint, and the structure is slowly toppling over. Apart from the movement damage, the timber framing appears in good condition. The roofing iron is fair to poor.

Roof Framing & Cladding

Material: The main roof is a timber-framed gable with galvanised corrugated sheet roof and ridge capping. Tightly-spaced roof battens are remnants

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Building Number	Building Name:	Other Reference Numbers
MH34	Former Coal Store	Site Plan: No. 11

of the earlier timber-shingle roof. No fascias or gutters. Secondary skillion roofs project from the south-west façade.

Condition: Timber framing elements of the main roof are in good condition, but the roof structure as whole is unstable and distorted. The galvanised sheeting is generally intact but extremely rusted on the south-east face. The structural distortion has caused the sheeting to separate from the structure and ridge capping. Generally the skillion roofs are in very poor condition structurally, leaning in various directions, with the sheeting loose and rusted.

Floors

Material: Timber planks on earth, rough concrete slabs

Condition: Timber planks are uneven and loose, concrete slabs are intact.

Walls – external and internal

Material: Timber stud framed walls with the studs notched into the top and bottom plates, clad externally with original timber weatherboards and timber beads at external corners. Remnants of central dividing wall framing. The building is unlined or painted internally.

Condition: Wall framing elements are themselves intact, but the building structure as a whole is unstable. External paint has almost completely worn away, the weatherboards are dried out, surface damaged and warped with some missing or falling.

Ceilings

N/A

Doors

D.01 is a ledged and braced door with v-jointed boards and an external padlock. It is currently inoperable due to structural distortion. D02 is a recent (probably c.1950s) galvanised weld mesh gate opening outwards, supported by two galvanised poles on either side.

Windows

W01 and W02 are small original fixed windows with projecting timber sills and slender frames.

Fittings

N/A

Plumbing and Drainage

The building has no plumbing or drainage. There are no roof gutters or downpipes.

Immediate Site Context

The building is half-dug in to a rise in the ground towards the back of the site. A concrete drain runs along the rear of the building and connects to the main roadside concrete drainage system. Refer to MH26.

Middle Head Historic Buildings Conservation Management Plan Building Data Sheet

Building Number	Building Name:	Other Reference Numbers
MH34	Former Coal Store	Site Plan: No. 11

HISTORICAL BACKGROUND

The building appears to date from the very first period of the site development. Its relationship to MH26 is clear and has a significant correlation in fabric elements. It has largely been used for its original purpose (coal/fuel store) since the beginning of the barracks period, and is a modest but significant part of the site.

DATING THE BUILDING

The 1903 list includes the building as a 'Cool Store' [sic] clad with weatherboards. The tightly-spaced timber shingle battens and notched timber framing suggest that it was constructed contemporaneously with MH26, in the late 1870's. Early plans seem to note it as a coal store, and as this makes more sense from its positioning and fabric this plan has adopted this as the original use.

STATE THEMES

Defence

FABRIC CHANGES

- Wall and roof framing, the timber weatherboards, the ledged door and both windows appear to be original.
- The tightly spaced timber roof battens suggest the original roofing was timber shingles, which have since been replaced with galvanised iron.
- The central dividing wall has been cut out, leaving the roof structure unsupported and unbraced. Remnants of the wall framing remain suspended from the roof members.
- A projecting roof with a weldmesh gate has been added, c1960-80s.

STATEMENT OF SIGNIFICANCE

The building is a small part of the site as a whole, but its early date and largely intact fabric make it an important element. Its presence relates to the early need for fuel and gives some information about the life of the early barracks.

POLICY

Potential Uses

STORE

The building is too small to use for any purpose other than a storeroom, or could be left vacant as an interpretive element on the site. Its use as a storeroom is in keeping with its historic role. Dangerous or flammable goods should not be stored within the building as it has some significance as an early part of the site.

Elemental Analysis

The fabric elements contributing to an understanding of the building's cultural significance are to be conserved. These include:

- Notched timber wall and roof framing
- Tightly spaced timber battens for shingle roofing

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Building Number	Building Name:	Other Reference Numbers
MH34	Former Coal Store	Site Plan: No. 11

- The ledged door
- Both windows
- The timber flooring planks
- Remnants of the original dividing wall
- The weatherboards, whilst apparently original, would seem to have passed the stage of repair and may need to be replaced to continue to protect the interior from the weather.

The fabric elements that are less essential to the significance of the building, but do not detract from the significance that may be retained or removed include:

- Galvanised iron sheet roofing and ridge capping

The fabric elements that have some negative impact upon the significance of the building, but should only be removed if the selected use required it include:

- The projecting roof overhang and weldmesh gate detracts from the presentation of the building
- The rough concrete flooring slabs

The fabric elements that are endangering or obscuring the significance of the building and need to be removed, repaired or upgraded in order to protect the building and ensure its ongoing use include:

- The structural instability needs urgent attention

Adaptation

Structural upgrading of the building is required to prevent further distortion and possible collapse. After the adaptive works are completed and the building is made secure, it could easily continue its use as a storage area primarily related to MH26.

Immediate Site Curtilage

The building has a historical link to MH26, which is currently somewhat compromised by the location of the carport. The building is close to a concrete drain aligned with the back wall. The soil banked up around the building may be a later accumulation that is damaging the fabric, or may be the original configuration.

CONSTRAINTS

BCA Constraints

The Coal Store is defined a single storey Class 10 building under the BCA.

FIRE RESISTANCE

The building has no fire resistance requirements.

COMPARTMENTATION AND SEPARATION

There is no compartmentation or separation.

PROTECTION OF OPENINGS

The openings are not required to be protected.

EGRESS

The building has no BCA requirements for egress.

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Building Number	Building Name:	Other Reference Numbers
MH34	Former Coal Store	Site Plan: No. 11

ACCESS FOR DISABLED

Disabled access is not required.

FIRE SERVICES

The building does not have any requirements for fire services.

AMENITY ISSUES

There are no relevant amenity issues for the coal store.

SPECIAL USE REQUIREMENTS

The building is unlikely to fall into this category.

MAINTENANCE ASSESSMENT

Urgent Work: 0-1 year

- Structural upgrading is urgently required to stabilise the building and prevent further distortion or collapse
- Investigate whether soil build up is damaging the weatherboards below the surface. If so, remove the soil to expose the external cladding.
- Repair or replace the external weatherboards with matching boarding.
- Make good existing timber plank flooring and concrete slabs to comply with OH&S requirements
- Make D.01 operable

Medium Term Work: 1-3 years

- Replace roof sheeting with galvanised corrugated steel and provide galvanised gutters and downpipes. Connect downpipes into existing stormwater reticulation system

Optional Interpretative Works

- Remove projecting bay, concrete slab and weld mesh gate. Infill opening with matching weatherboards and new stud framing, and return access point to Door D.01

Cyclical Maintenance

- Clean down external timber elements every year.
- Paint external timbers every 7 – 10 years. Internal timbers are not required to be painted.
- Clean gutters every three months.
- Clean windows at six monthly intervals.
- Inspect building for termite activity every six months.
- Check downpipes for blockages annually. Water seepage can be the most destructive element to building materials.

5.0 Assessment of Significance

5.1 COMPARATIVE ANALYSIS

The Middle Head Historic Buildings area has some degree of rarity in that it is almost completely designed and executed in timber weatherboards. The reasons for this are only speculative, but the choice is one that has not been replicated elsewhere. There are weatherboard buildings in most military facilities in Australia, but they are largely confined to the utility or temporary structures, and this may give some rationale for why Middle Head was so designed.

Gojak states that 'whilst there are a number of current and former military barrack buildings surviving in NSW, ... the most useful context of comparison is with other artillery establishments and military bases of comparable periods' (*Sect A4.5.1*). *Gojak* notes (*Appendix – 7.5*) that *Barnet* felt that Middle Head was so successful that he used the designs at Fort Queenscliff in Victoria, and is unclear if this was the whole site or just the gun emplacements. Investigations into Fort Queenscliff have found the battery almost identical, but the Fort built in brick and stone masonry behind a large brick defensive wall. It does contain weatherboard structures, but they are in the minority.

It would seem the nearest comparisons are those sites that are near neighbours to Middle Head. Of these *Gojak* states that Victoria Barracks is more intact and complex, and is of course largely built in sandstone.

South Head and Georges Heights are more like Middle Head; South Head even contained a replica of MH27 - Barracks 2 (Fig 4.7). The School of Artillery moved from Middle Head to South Head in 1894 (they are now located at North Head) (*Watt, 1957*). South Head was developed about 15 years after Middle Head. It was used as a signalling station and had gun emplacements. The defence land has now been incorporated into the Sydney Harbour National Park and the site of HMAS Watson.

Georges Heights relates closely to the history of Middle Head, as they were developed side by side. Whilst Georges Heights does have a number of weatherboard structures, almost all date from 1900 onwards, and all are utility buildings. The closest relationships in terms of use and architectural expression are included in the following table. What stands out from this assessment is how few Georges Heights buildings are comparable with Middle Head. Those that are from a similar period are substantially more permanent buildings, most particularly the Gunners Barracks, which is an architectural high point on the site. Even the Sergeant Majors Quarters is a more substantial building. The large numbers of comparable weatherboard structures all date from the early years of WWI, and relate to a hospital function, which was clearly a more urgent construction programme given the circumstances.

From this assessment, it is possible that Middle Head was seen as an interim measure early on, but one that soon became permanent. However, one would assume that from 1880 onwards (given the nature of MH29) that the site was regarded as a permanent fixture.

There is also a distinction in the apparent structure of the hierarchy of the two sites. There is no comparable site for MH29 – Officers Quarters at Georges Heights. Middle Head appears to reflect an earlier, more distinct, relationship between officers and their subordinates. This relationship seems to have eroded quite substantially in the transformations the military underwent in the 1880s.

TABLE 5.1 COMPARATIVE ELEMENTS AT GEORGES HEIGHTS

Godden Mackay Ref	Function	Description	Date by GM report
HQ31	Gunners Barracks	Elaborate sandstone structure with verandah, asbestos roof – James Barnet, Col de Wolski	1873 1891
AM25	Sgt Major's Cottage	Brick Victorian Regency building. A substantially better building than MH30.	1891
DH7	Gunshot alley	Formal Victorian brick terraces – unlike anything at Middle Head	c1892
DH2	Residence	Weatherboard clad building with verandahs, galv roof. Built as NCO quarters. Decorative bay in roof	c1890s
DH6	Cottage	Simple vernacular weatherboard cottage with enclosed verandah and attached outbuildings. Barracks type accom.	c1900
30T2	Gardener's Cottage	Very small and simple weatherboard cottage with decorative brick chimney	c1908
HQ2	Sergeants Mess	Large weatherboard utilitarian	c1918
HQ6	Former Hospital bldg	Large FC clad building with verandah – comparable in scale and size to MH27	c1918
HQ17	Former Hospital bldg	Weatherboard, asbestos roof	c1918
HQ19	Former Hospital bldg	Very large weatherboard and FC sheet building, galv roof	c1918
HQ20	Former Hospital bldg	Large FC clad building with verandah – comparable in scale and size to MH27	c1918
HQ21	Communications centre	Tall, ashlar rendered building with asbestos roofing	c1918
HQ22	Former Hospital bldg	Weatherboard, FC and hardiplank, asbestos roof	c1918
HQ23	Former Hospital bldg	Large FC clad building	c1918
HQ24	Former Hospital bldg	Weatherboard clad building	c1918
HQ1	Duty Room	Small weatherboard, galv roof	c1930s

Godden Mackay 1998 – Georges Heights and Middle Head Defence Site Heritage Assessment for NPWS

Comparative Assessment - Architectural design

5.1.1 James Barnet

The development of the Middle Head batteries in the early 1870s is relatively early in Barnet's career. He was made acting Colonial Architect in 1862 and was appointed to the role in 1865. His office would grow to a large firm with many architects working under his direction, largely as a result of the public works expansion from about 1879 onwards. The barracks area was commenced in 1876, two years after the George Street section of the GPO building.

It is clear that Barnet was responsible for the fortification works and the batteries, given that he was criticised for their design. The building works on the site in Barnet's time covered a large site, most of which is outside the scope of this study. It is unclear whether Barnet was engaged to prepare plans for all the buildings on the headland site, or whether he was to only look after the larger, more complex structures. He is credited with the design of the former Gunners Barracks at Georges Head (*Item HQ31 – Godden Mackay 1998*), which is a substantial stone barracks. Most of the smaller structures appear to fit the vernacular typology, and it is likely that smaller buildings were standard military

designs. Similar simple weatherboard structures (such as *Item DH6 – Godden Mackay 1998*) were being built in largely the same fashion ten years after Barnet retired.

The design of MH26 Barracks 1 is such a simple structure that it may well have been a standard military design of the time. If the 1903 List is correct and the building was originally clad in corrugated iron with a timber shingled roof then it is likely to be a standard design that did not originate from Barnet's office.

The plan of MH27 Barracks 2 bears a remarkable similarity to a Barracks structure at South Head (Fig 4.7). The complexity and level of design would suggest Barnet's involvement in this structure, since demolished.

There is not enough information about MH28 to speculate on whether Barnet was involved with its design.

MH29 Officer's Quarters is the only building with the clear link to Barnet of signed drawings. Its design is heavily influenced by a Victorian Regency style, and is quite unlike other buildings that Barnet was designing at the time which were largely Italianate (Bathurst Courthouse 1880 & the Garden Palace 1879). This was perhaps due to the military influence; other buildings on the adjacent military sites are in the Victorian Georgian style even into the 1890s (e.g. The Mines Laboratory – Georges Head – *Item AM18 – Godden Mackay 1998*). The building is also one of the few weatherboard residences that Barnet designed, and may for that reason be considered as rare.

MH30 Sergeant Major's Quarters could be associated with Barnet in its detailing, but there are awkward elements in its planning that are foreign to Barnet's designs and the documentary evidence would place it ten years after his resignation in c1900. Once again this structure is quite rudimentary and is thus likely to be a military design.

MH31 almost certainly post-dates Barnet's career and is likely to have been designed under Colonel de Wolski's direction. The common thread of a military designer may explain the similarity to MH26.

MH32 is likely to have been designed by Barnet, who was responsible for Police lockups and Courthouses as part of his normal role. However the building has been stripped of most of its recognisable early detailing, making this connection difficult to confirm. The 1892 photos show a late Victorian building, but the finial (if original) indicates a late 1880s date. By the late 1880s Barnet was in charge of a sizable office, and such a small building is likely to have been designed by a more junior architect.

The Middle Head site as a whole is very important to an understanding of Barnet's career, and indeed played some role in his forced resignation through the influence of Colonel de Wolski, the Royal Commission into the management of military sites, and Scratchley & Jervois' early criticism of the battery designs. The barracks buildings within the study area are less important to our knowledge of Barnet, although MH29 is an unusual design in his career and has value as such.

5.2 STATEMENT OF SIGNIFICANCE

The Statement of Significance is the focus of the Conservation Management Plan. It sets the basis for all policy development and determines the level of heritage control on the site.

5.2.1 NSW State Heritage Criteria

Criterion (a)

An item is important in the course, or pattern of New South Wales' cultural or natural history (or the cultural or natural history of the local area).

General relationship of barracks buildings to significance of site as a whole

The historic buildings within the barracks area are intrinsically related to the general historic significance of the Middle Head fortification works. The barracks appear to have housed the military personnel who were charged with the protection of the gun emplacements in time of war, and whose purpose was training with the guns in times of peace. As such the barracks area shares the more general historic significance of the fortifications as follows. These notes are selected from the more general site statements of significance in Gojak. The fortifications works have been assessed as being of national significance as a rare element in our cultural history. The barracks are tied to this significance, as they are necessary for a full understanding of the site.

1. The Middle Head barracks demonstrate the succession of military technologies and materials, and the design of the site layout displays the influence and role of British military advisers.
2. The built elements demonstrate the periods of activity as a result of a succession of defence 'scars' resulting from Britain's relationship with various other national super powers, mainly in the Russo-Turkish War of the 1870s and the Japanese threat in World War II.
3. The development of a succession of defence schemes reflects the relationship between the colony of NSW and Great Britain, and the reality of being a strategic outpost that may have been a target for hostility. The pattern of the schemes is directly tied to the interplay between the colony and Britain in developing greater political and economic independence, while trying to negotiate protection against external threats. The phases of building of forts and their barracks show the rhythm of Britain's relations with other European and Asian powers in the past two centuries.
4. The barracks was one area that was shaped by the interrelationships between the Colonial and Commonwealth governments and the British government, as a source of policy and administrative structure and personnel. These provided a strategic context for the defences and ultimately moulded the site facilities and defences to suit Imperial strategies.
5. The role of integrated defence in the development of a culture of inter-colonial cooperation began in the 1870s, fostered by the work of Jervois and Scratchley, and formed one of the agreed foundations for Federalism to proceed. The forts and barracks are an expression of the common interest in developing a national scheme of defence, and they also represent the work of two key proponents of such a scheme.
6. Within the military sphere administrative structures changed in response to social, political and defence requirements. The physical manifestation of the hierarchies are presented in the scale and placement of command centres on the headland, their links to each other and those of higher level units, the scale and nature of the residential

buildings and the cultural landscape, which conveyed specific messages of control and authority.

7. The technology exemplified in the design, layout and construction of defence facilities reflects the spectrum of technology available in the British Empire over that period. The details of the specific designs provide an important source of reference for our understanding of colonial engineering, design and construction capability. The role of technical advisers demonstrates the specifics of technological transfer from an industrial source to the colonies. Within the barracks area, this mainly refers to the defensive works associated with MH29.
8. The barracks area shares the site's association as a point of defence activity in the significant event of the Second World War Japanese midget submarine raid.
9. The study site is historically significant in demonstrating the resumption of land on Middle Head in 1871 for defence purposes resulting in the survival of undeveloped headland. This has ensured that the natural characteristics of the headlands still dominate the entrance to Port Jackson and the entry into Sydney Harbour.

Historic Significance of the barracks area itself

The buildings and the study site have significance that does not depend upon the significance of the fortifications.

1. The study site is historically significant as it was the site of the early training facilities. The military establishment had a training role from the beginning of the permanent presence of troops in 1871. This was particularly demanded because of the emphasis placed upon volunteers and part-time soldiers. Annual training courses, bivouacs and other courses were held when the site was the location of the School of Artillery *State*.
2. The study site is historically significant as an early strategic surveillance post in the greater defence network within Sydney Harbour. Early photographs clearly demonstrate how important the strategic and tactical benefits of surveillance of all vantage points was to the positioning of the historic structures on the site, and this layout remains a testament to that priority. *State*
3. The barracks area is historically significant in reflecting two standards of housing; that of military barracks and married quarters. The barracks period demonstrate a relatively spartan military lifestyle, whilst the period after the war demonstrates the modifications made for married quarters. *Local*
4. The study site is historically significant, as the residences for defence staff surviving from the Colonial administration reflect the hierarchy of housing quality that operated in the military, with a barracks for the men and detached houses for officers and NCOs. They and others that have disappeared also reflect the broader changes that took place to maintain an Australian colonial military force that was operating in a different way to its British model. Therefore the housing had to be improved to attract men who were in demand in other jobs, the provision of married quarters and accommodation, mainly under canvas, for part-time and militia soldiers. *Local*
5. The study site is historically significant for its links to the construction of the 'military road' in 1870-71 with unemployment relief labour. These road works are related more broadly to Military Road, which has become the main artery for the entire area and its name acts as a reminder of its original association. *Local*
6. The study site, and particularly MH32, is historically significant as part of the military communication network during the war. The surviving sites related to this aspect

record the capabilities of different modes of communication essential for an integrated defence system. Wireless transmitter masts on Middle Head also provided support for military and police activities following World War II. The continued presence of signal masts, even though not early structures, demonstrates this important function of the site. *Local*

Criterion (b)

An item has strong or special association with the life or works of a person, or group of persons, of importance in New South Wales's cultural or natural history (or the cultural or natural history of the local area).

1. The study site is historically significant in its association with Colonial Architect, James Barnet, who is likely to have been associated with many of the buildings on site, but has a clear relationship with MH29, a building that is rare amongst his work in that it is a weatherboard residential structure in the Victorian Regency style. *State*
2. The layout of the barracks area at Middle Head is historically significant in reflecting the advice of the British military advisor Jervois and remains a legible site influence in the positioning of the remnant buildings. *State*
3. The study site is historically significant in its association with Colonel de Wolski, a military official who significantly influenced the development of the late colonial defences of New South Wales. MH29 was also the residence for a time of Sir William Throsby Bridges, the commander of the Australian forces at Gallipoli. *Regional*

Criterion (c)

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in New South Wales (or the local area).

General relationship of barracks to significance of site as a whole

1. The aesthetic significance of Middle Head derives from the natural form of the headland as part of the Harbour landscape, the human response to that form, and from the quality of specific locations and sites upon the headland. *State*
2. The headland now presents as a picturesque grouping of buildings, fortifications and natural elements that offer dramatic views of the harbour and the city within an understandable historic context. *State*
3. Middle Head forms a viewing platform with clear sight lines to the spectacular scenery of North, Middle and Sydney Harbours, and out to the open ocean. It also forms a highly significant headland when viewed from North and South Head and the approaches to the harbour. *State*

Aesthetic Significance of the barracks area itself

1. MH29 is aesthetically significant as a well designed and intact example of a mid-Victorian Regency structure set on an imposing defensive wall and moat structure with commanding views of the harbour. It demonstrates the military preference for this more serious and conservative architectural style. *State*
2. The remainder of the barracks buildings as a group are aesthetically significant in demonstrating the architectural expression of mid to late Victorian military structures, often in a vernacular and extremely simple style, with the Soldier's Institute being at the upper level of building quality. As a group of weatherboard structures (except MH32) they are a relatively rare expression of their function. *Local*

Criterion (d)

An item has strong or special association with a particular community or cultural group in New South Wales (or the local area) for social, cultural or spiritual reasons.

General relationship of barracks to significance of site as a whole

1. The study site has social significance as a military training and active service site spanning from the late 1870s to the end of World War II. The history of individual units and corps of the Australian Army is intimately associated with the history of the place. This includes both established units and those raised in wartime as temporary establishments. The area, or parts of the area, is also particularly associated with the New South Wales Volunteer Artillery, the Australian Garrison Artillery, and the Garrison battalions in World War II. *State*
2. The role of women in these defence sites was significant, especially in World War II, when the Australian Women's Army Service was established, and various sites at Middle Head were operated by members of this service. *Local*
3. Groups who have identified themselves as finding Middle and Georges Heads important through an historical association or an established use are:
 - Members of the armed services, especially coastal or garrison artillery and various infantry units, who either served there or find that this place embodies memories of their wartime experience. This is reflected in informal visitation by individuals and various military and ex-Services groups. *State*
 - The local community (Mosman Municipality, North Shore generally, Sydney public) who enjoy exploring the area. The visitors tend to be informal visitors, Mosman Council groups and participants on NPWS Forts tours. *Local*
 - Military sites enthusiasts such as the Royal Australian Artillery Historical Society, individual enthusiasts and participants on NPWS Forts tours. *Local*

Criterion (e)

An item has potential to yield information that will contribute to an understanding of New South Wales's cultural or natural history (or the cultural or natural history of the local area).

1. Whilst much of the information about the demolished buildings has been lost, the sites of former buildings, the areas of fill from their demolition, and the filled in moat areas retain a high potential for archaeological analysis of building fabric, personal items and fabric that might offer information about the lifestyles and functions of the site from its earliest history. *State*

Criterion (f)

An item possesses uncommon, rare or endangered aspects of New South Wales's cultural or natural history (or the cultural or natural history of the local area).

General relationship of barracks to significance of site as a whole

1. The Middle Head Barracks and fortifications are a rare example of a relatively intact military establishment designed from the earliest period of Colonial responsibility for the defence of Sydney Harbour. Even compared with other sites in Sydney Harbour itself, the site has the rare ability to demonstrate the strategic, functional and hierarchical requirements of both the barracks and the fortifications. *State*

Significance of the barracks area itself

1. The building MH29 is a rare example of a weatherboard residential structure in the Victorian Regency style designed by James Barnet. *State*
2. The barracks area is uncommon for a military establishment designed and built in the late Victorian period, in that the predominant external cladding is weatherboard and the predominant style is vernacular. *Local*

Criterion (g)

An item is important in demonstrating the principal characteristics of a class of New South Wales's;

- **Cultural or natural places; or cultural or natural environments or;**
 - **A class of the local area's cultural or natural places; or cultural or natural environments).**
- 1. The barracks buildings are representative of mid-Victorian to Transitional (and possibly Federation) vernacular weatherboard military structures. *Regional*

5.3 DEFINITION OF CURTILAGE

The curtilage of the heritage item is defined as the required 'setting' or space around the building that is required to preserve the significance of the site. The concept of curtilage recognises that significance can be affected even if no fabric is altered within the item.

Building 'in the vicinity of' a heritage item carries the risk of affecting that significance and must address how the proposal will not impact upon the significant items of the site. This involves setting a curtilage that protects the identified significant characteristics of the site.

Immediate curtilage descriptions are included in the datasheets on individual buildings, but on sites such as Middle Head there is also the need to protect the wider cultural values of the site as a whole.

On a site such as the study site, curtilage is largely overridden by the more pressing need to protect archaeologically sensitive sites, as discussed below. Other issues related to curtilage are the important relationships and views to and from the site.

5.3.1 Important Relationships and Views

Historic significance of harbour surveillance

The barracks area contains only a remnant of the structures that were once on the site. Nonetheless, there remain enough buildings to understand the site through the surviving site relationships. It was observed that the buildings are not arranged around a central space, but are instead oriented outwards, as defensive surveillance posts to watch the harbour. The most serious intrusion on this important site relationship is the growth of vegetation around the perimeter that now isolates the buildings from the fortifications and harbour setting.

Historic significance of perimeter moat

The site was surrounded by a fortified wall and moat structure giving a strong sense of a perimeter or edge enclosure. This relationship has been removed as vegetation has been allowed to encroach, and partially following the infilling of much of the moat including filling over sections of the wall.

Historic significance of site clearing

The site was a historically cleared zone of activity. Training in the technique of transporting heavy weaponry required the site to be cleared in order to set up the complicated gantry and pulley systems required for the task. Early photos show this activity being undertaken in all areas of the site. The role of surveillance also required clear views of the harbour and of the surrounding landforms in the event of an attack. It is important that this aspect of the site be translated to the current expression of the environment in the barracks area.

Response to site vegetation

For these reasons the triangle area between the road system and the area between MH29 and MH30 should be cleared of the low level vegetation that has encroached. The entry to the site, as the most important first impression, should also be cleared of vegetation. Some clearing will also be required to give MH32 and MH31 the sense of a clear setting. Limited clearing dedicated to restoring view lines to the harbour is also recommended. Refer to Appendix G for a drawing setting out the areas of clearing.

Views to the site

The site is an important part of the Sydney Harbour National Park and its natural and largely undeveloped headland is of high significance to the harbour as a whole. The importance of these views and maintaining the natural bushland on the site is in contrast to the historic significance from within the site that encourages some level of clearing to recover historic significance. The *NPWS Sydney Harbour National Park Plan of Management* and the *Sydney Harbour REP* ensure that the views to the headland are protected from unsympathetic development.

The views to the site are also important from a local perspective. The site, as an historic surveillance post, is visible from many vantage points around the harbour. The most visible part of the site is the crest of the hill, presently occupied by MH31 – Soldier’s Institute, the roof of which can be seen from North and South Heads, and from other vantage points. The nearest vantage point is Balmoral, which views the north western flank of the site adjacent to MH29 – The Officers Quarters. This view includes the tennis court area. Any structures proposed in this area should be designed to minimise their visual impact.

Historic relationship to fortifications

The relationship of the barracks area to the forts is one that is fundamental to an understanding of the barracks, and one that adds to an understanding of the fortifications. This relationship must not be severed, and needs to be clearly identified, recovered and interpreted.

5.3.2 New and Reconstructed Buildings

New buildings within the confines of the moat perimeter would be an inappropriate response to the cultural significance of the site as a whole. In particular, the interrelationships between the buildings should not be obstructed by new structures



Fig 5.3.1 CURTILAGE OF BUILDING GROUP

The interrelationship between buildings (and former building sites) is essential to an understanding of the site. New structures would intrude on these relationships and break down the site's interpretative value.

The line shown sets out a core historic area that should be protected from the intrusion of new structures.

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Gojak (Policy 8.1.3 v) conditionally permits the 're-creation' of demolished structures as an activity distinct from reconstruction. The two must be seen as the same activity under the *Burra Charter 1999*. Reconstruction is appropriate only where a place is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the fabric.

The reconstruction of demolished buildings on this site offer only limited benefits in terms of understanding the significance of the site. The most significant demolished building, MH27, had undergone two substantial transformations in 1924 and 1953, and it would be difficult to determine what stage of its history was best to reconstruct. In addition, as the nature of the site meant that each building depended so much on their related structures, the reconstruction of only one building (without its contemporary structures) would be to falsify the condition of the whole site at any particular point. Most importantly, any reconstruction would disturb the archaeological significance of the sites of demolished structures.

In summary, the preferred way to understand the demolished buildings' significance is through interpretation strategies other than reconstruction.

5.4 ARCHAEOLOGICAL SENSITIVITY

Determination of the curtilage of the site must also consider potential archaeological sites in defining the impact of any proposed development. As the site has had many buildings demolished, and the documentary evidence is relatively unclear, the archaeological sensitivity zoning of the site must cover the potential for uncovering currently unknown deposits. Fig 5.4.1 overleaf sets out the archaeological sensitivity in three levels.

5.4.1 High Potential/Sensitivity

Areas of high sensitivity include:

- Known sites of former buildings or elements,
- Areas surrounding known sites where there has been a high level of human activity
- Former traffic routes now covered
- Known remnants of early site materials
- Areas of fill, particularly on the basis of evidence that demolished items were buried on site

5.4.2 Medium Potential/Sensitivity

Areas of medium sensitivity include:

- Areas known to have been part of the general activity of the site, but not the site of a structure
- Areas covered by vegetation that may conceal previously unknown structures

5.4.3 Low Potential/Sensitivity

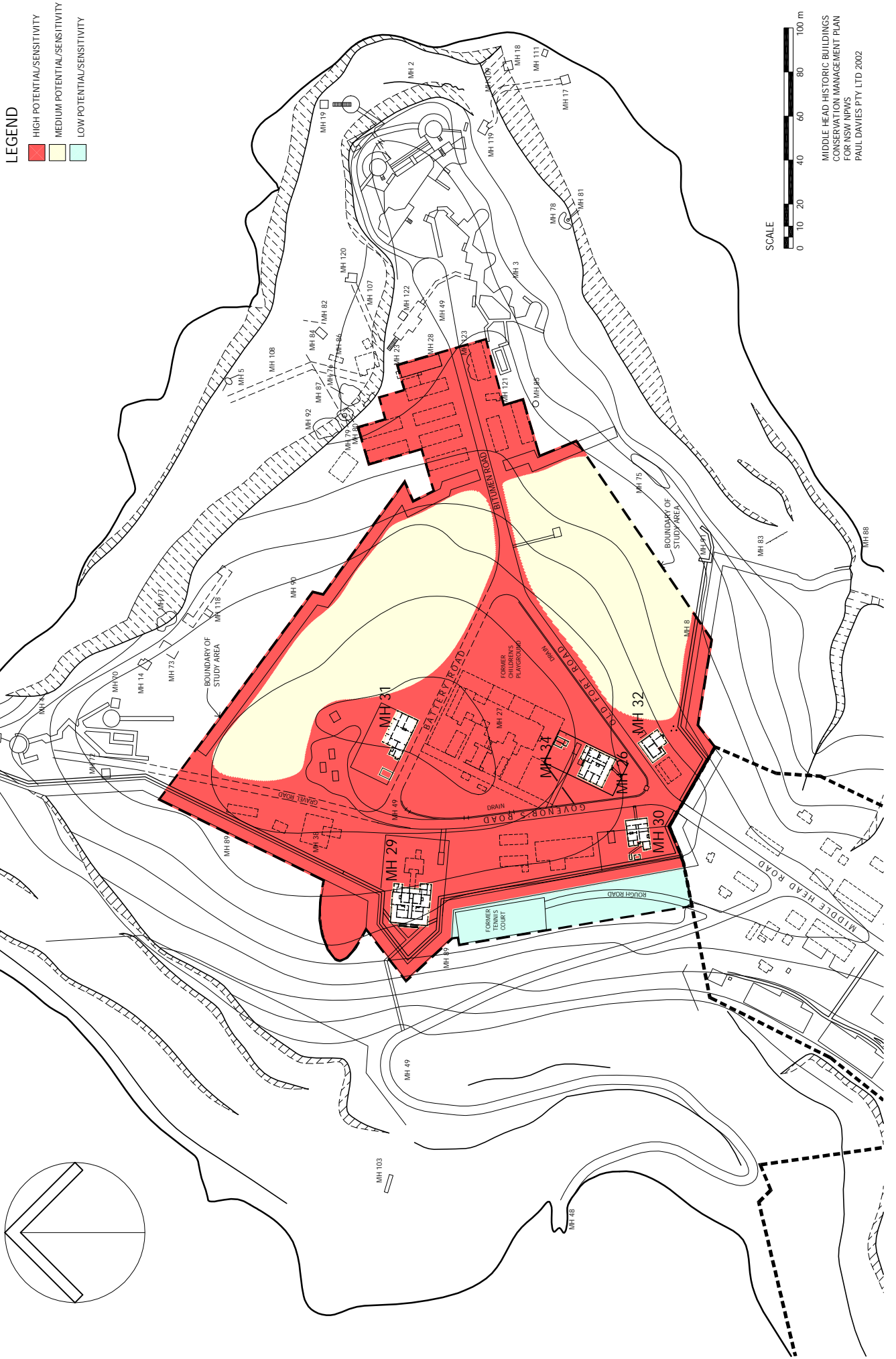
Areas of low sensitivity include:

- Areas known to have been outside the general activity of the historic part of the site
- Areas that have been highly disturbed

Many parts of the Middle Head Historic Site are considered to have historical archaeological potential. Actions must be taken to ensure that this resource is conserved and/or investigated as appropriate prior to any disturbance. NPWS should seek to minimise the need for disturbance of areas assessed to have High and Medium levels of potential. Where disturbance is unavoidable, prior archaeological assessment will be required.

Fig 5.4.1 Archaeological Zoning Plan is to be used in conjunction with the policy statements in determining actions related to site development or activities that may disturb the surface.

Fig 5.4.1 ARCHAEOLOGICAL ZONING PLAN



5.5 SIGNIFICANCE ASSESSMENT OF SITE ELEMENTS

Detailed assessment of fabric elements, outbuildings and immediate surrounds of the five remaining buildings are included in the datasheets.

The site elements have been assessed for their contribution to the significance of the place. The following ranking has been used to identify the relative significance of each element.

5.5.1 Level A – Items of High Significance.

These are items that have direct associations with the Statement of Significance, contribute to the significance of the place and have the ability to demonstrate that significance.

Items of high significance are to be retained and preserved, and any works to these elements must not lessen their significance and must be in accordance with the guidelines set out in the Burra Charter 1999.

Elements of the site that are of level A significance include:

- The five remaining buildings and their outbuildings as defined by the detailed datasheets
- The sites of former buildings as shown on Fig 5.4.1
- The surroundings of existing and former buildings
- The inner and outer moats, defensive walls and the archaeological potential of soil fill
- The front gates
- Extant features such as drains, paths and roads
- The garden area in the forecourt of MH29
- Rubbish discard areas within the study area
- Possible pit toilet or latrine sites within the study area

5.5.2 Level B – Items of Considerable Significance

These are items that have a less direct association with the significance of the whole but contribute to an understanding of the place, or that contribute to the significance of the fabric but because of modifications or condition are reduced in their ability to demonstrate that significance.

Items of considerable significance are to be retained and preserved, but limited work may be carried out if it can be shown not to reduce the significance of the place in accordance with the guidelines set out in the Burra Charter 1999.

Elements of the site that are of level B significance include;

- Radio masts that can be shown to be of historical importance on the site
- Fencing
- Individual mature trees on the site

5.5.3 Level C – Items of Lesser Significance

These are items that are only incidentally related to the significance of the place, or are so altered or damaged as to be unable to demonstrate significance

Items of lesser significance may be altered if the work can be shown not to reduce the significance of the place.

Elements of the site that are of level C significance include;

- The entrance roadway

- Small sheds not identified in the datasheets
- Paling fences
- Washing lines

5.5.4 Level D - Items that Detract from Significance

These are items that obscure or conceal significant fabric or relationships, are causing or likely to cause damage to significant fabric, or is fabric that distorts from significance or conflicts with the character of the whole.

Items of detracting significance may be removed and work then undertaken to recover lost significance or to introduce compatible elements.

Elements of the site that are of level D and are detracting from significance include;

- Overgrowth and regrowth of vegetation that directly obscures the original surveillance function of the site
- Vegetation within the triangle of the roadways and across from roadways
- Soil fill that obscures the layout of the moat and defensive wall line
- Carport structures adjacent buildings
- Cyclone fencing and gates

Gojak (Sect 6.2.5) makes the following statement about detracting elements on the site. These statements largely echo the above analysis.

While there is a strong local concern for retaining the amenity of the park and its recreational opportunities this does not primarily reside in an appreciation of the cultural significance of the place or its components. There is some public opinion that the natural heritage value of the headlands is paramount, and that it may be acceptable to revegetate the headland more substantially than at present. The consequence of obliterating the evidence of both past Aboriginal and European use is not highlighted in such proposals.

The exotic plant growth that has flourished from the later years of Army ownership and has colonised both native bushland and formerly cleared areas is not significant. Regrown native bush that has colonised cleared areas is similarly not significant. These obscure the important cues to understanding the way that the defences operated and their visual links with other significant parts of the harbour.

The Army carried out work immediately before the transfer to NPWS. This includes erection of the NSW Police radio mast and equipment shack, demolition and bulldozing of structures into the defensive ditches and installation of late-pattern fittings to various buildings. Army items that post-date World War II and that do not relate to the use of the area as a Vietnam War period training school are not significant. Their removal will not diminish the significance of the place.

NPWS installed park infrastructure and amenities, including signage, track work, gates, fencing and interior modifications to buildings are not significant and can be removed if required without diminishing significance.

6.0 Constraints and Opportunities

6.1 CONSTRAINTS - STATEMENT OF SIGNIFICANCE

The site has been identified as being of high cultural significance to the State of New South Wales.

The following summarises the general aims arising from the Statement of Significance.

1. The **place** is of high significance and should be *conserved*. The Middle Head barracks study site is an area of high significance, both in its support and relationship to the nationally significant fortifications, and as an important intact group of early military buildings in its own right. Conservation works are described in detail in the datasheets. (**Criteria a, b, c, d, e, f, g**) Ref Burra Charter Art 1
2. The **use** of the site has ceased to be related to its historic use since the transfer of the site from the military to National Parks and Wildlife Services in 1980. The importance of the historic use of the site should be *interpreted*, and new uses should be *compatible* with the character of the original use in that the important aspects of that use are understood from the fabric, and that new uses do not detract from or obscure the significance of the site. (**Criteria a, d**) Ref Burra Charter Art 7, 23
3. The **context** of the site is of high significance and needs to be *protected* from incompatible development and from the alienation of its environment. The control of the site vegetation and care for the site's high archaeological potential are the main aspects of this area of significance given its new ownership, but the long term potential of development must also be considered. As the use of the site once spanned the whole headland, the need for an interpretative response within the remnant of the site is an important issue. (**Criteria a, b, c**) Ref Burra Charter Art 2, 8
4. The **relationship** of the site to the Middle Head fortifications is of high significance and needs to be emphasised and *interpreted*. The more distant relationship of Middle Head to the adjacent former military sites of Georges Heights and Chowder Bay need to be *interpreted*. The relationship of Middle Head to the other fortifications around Sydney Harbour (now part of Sydney Harbour National Park) needs to be *interpreted*. (**Criteria a**) Ref Burra Charter Art 11
5. The identified significant **fabric** of the remnant buildings should be *conserved* in accordance with the recommendations of the datasheets. Significant **fabric** on the site needs to be *conserved* and *protected* in accordance with its identified significance and archaeological potential. (**Criteria a, b, c, d, e, f, g**) Ref Burra Charter Art 4, 10, 16, 17
6. The **associations** with people and events of high significance should be *interpreted* (**Criteria a, b, d**) Ref Burra Charter Art 25

The detailed implications of these constraints must be assessed against other constraints that affect the building.

6.2 CONSTRAINTS - OWNER REQUIREMENTS

Much of this section is a restatement of issues discussed in *Gojak*, but have been refocused to deal with the barracks area specifically.

The NPWS has a number of requirements it has to abide by in its management of the study site. Management in accordance with the NPW Act 1974 requires consideration of cultural and natural values, educational and recreational opportunities that can be provided. In general, for this site, it requires that *the Service shall carry out such works and activities for the preservation and protection of, and prevention of damage to historic sites.*

The *Sydney Harbour National Park Plan of Management* (NPWS 1997) identifies appropriate conservation and management objectives for the Middle Head section of the park. The *Sydney Harbour National Park Plan of Management* recognises that, in addition to high European and Aboriginal cultural significance, Middle and Georges Heads are an important recreational focus for Sydney residents and visitors.

The *Sydney Harbour National Park Plan of Management* identifies a range of cultural and natural conservation management planning policies, park management and recreation and visitor management policies and actions. These are binding upon the Service, and the policies and actions within this Conservation Management Plan must be consistent with them. This Conservation Management Plan has been commissioned with a view to fulfilling the requirements of the Sydney Harbour National Park Plan of Management for the site, and to inform the updating of the plan for the site.

The objectives for the Sydney Harbour National Park as a whole include;

1. Management of the park as part of a system of lands which protect the natural and cultural heritage and scenic amenity of Sydney Harbour
2. Restoration and Interpretation of significant natural values of the park
3. Conservation of historic structures and their settings
4. Interpretation of a range of historic places which illustrate important aspects of Australia's history
5. Provision of outdoor recreation opportunities which are compatible with the protection of the natural and cultural values of the park
6. Promotion of the park as an important, readily accessible recreational and educational resource for metropolitan Sydney

The identified overall strategy for the Middle Head area as defined by the Sydney Harbour National Park Plan of Management is as follows.

1. Interpretation of fortifications and defence history
2. Rehabilitation of natural vegetation.

As discussed above, the policies of this plan are compatible with these objectives. The only potential conflict lies between the desire to interpret the significance of the buildings as a group of outward looking surveillance buildings, and with the objective to rehabilitate the natural vegetation. A compromise level of clearing, which emphasises the important character of the site and opens up selected vistas whilst maintaining the objective of rehabilitating vegetation, would appear to be the best way to address this concern

The more detailed policy of the Sydney Harbour National Park Plan of Management is attached below.

6.2.1 Excerpt from Sydney Harbour National Park Plan of Management related to historic buildings

Sect 4.1.3 Historic heritage

The historic heritage of the park will be conserved in accordance with the principles of the Burra Charter of Australia ICOMOS.

The primary criteria for determining priorities for the preservation of historic heritage will be cultural significance and threat. Priorities for restoration, reconstruction and adaptation will then be determined on the basis of feasibility of providing for public access for interpretation and other use, including commercial use to generate revenue for its conservation.

Subject to protection of cultural values and public safety, public access to historic places in the park will be encouraged.

Conservation assessments, including where necessary the preparation of a conservation plan, will precede:

- any works on a historic place, other than routine maintenance or urgent stabilisation work*
- any proposal to substantially modify an existing use or to introduce a new use to a place; and*
- any proposal to restore to a natural condition or otherwise modify a landscape containing cultural features and / or plantings.*

Recent developments that impact on historic values will be removed, and new developments that adversely impact on historic places will not be permitted.

Work with the potential to impact on subsurface archaeological evidence will be preceded by an archaeological assessment and recording.

Portable objects will be conserved and interpreted in situ wherever possible. If portable objects need to be removed from sites to allow essential conservation works to be undertaken and / or to ensure their survival, they will be fully documented before they are removed.

Artefacts that do not have an association with a place will not be introduced for the purposes of interpretation.

The historic heritage of the park will be interpreted, with emphasis on themes of quarantine, defence, maritime industry and recreation.

Culturally significant plantings identified through the conservation planning process will be replaced with plantings of the same species when they become senescent or die, and culturally significant grassed clearing will be maintained.

Vegetation that is damaging historic structures and features will be removed.

The development of volunteer or caretaker programs to assist in the management, promotion and interpretation of historic places on Sydney Harbour National Park will be encouraged.

Research into the historic heritage of the park will be encouraged. Priorities for such research will be determined in conjunction with specialists and research institutions.

Sect 4.1.4 Native and introduced plants

Revegetation and regeneration of the native vegetation of Sydney Harbour National Park will be undertaken except within significant cultural areas.

Introduced plants that are not of historical importance will be controlled and where possible eliminated.

Sect 4.1.6 Fire management

Fire management within Sydney Harbour National Park will aim to protect structures and places of cultural heritage significance.

Sect 4.2.1 Promotion and interpretation

The park will be promoted utilising interpretive signs, especially at historic places and areas of special scenic or natural value.

There are no conflicts with any of the above statements, particularly in that regeneration of native vegetation should not be at the expense of sites with significant cultural values. The only action outlined for Middle Head that directly affects this study is that investigation into the excavation of the defensive moat is to be carried out. This is in line with the recommendations of this plan, although a full excavation is not considered necessary for interpretative value.

The Sydney Harbour National Park Plan of Management identifies the following appropriate uses for the park;

1. *Promotion and interpretation of the park's natural and cultural heritage*

2. *Certain types of low-impact recreation*
3. *Management operations by the Service and other authorities with statutory responsibilities in the area*

The list of compatible uses discussed in the datasheets concurs with these recommendations. The plan also pre-supposes the potential for guided tours at Middle Head under Sect 4.2.1 – Policies. This is also in accordance with the direction of this study.

The Sydney Harbour National Park Plan of Management also makes some recommendations relevant to this study in *4.2.3 Management Operations*:

- *All park assets will be incorporated into a total asset management system, to ensure that these assets are recorded, their condition regularly monitored and costs associated with cyclical maintenance clearly identified.*
- *Existing structures, where practical, will be re-used in preference to the construction of any new buildings in the park*
- *No new toilets will be constructed in the park unless they are connected to a sewer or an on-site treatment plant. Existing toilets will be progressively connected to a sewerage system, modified to a pump-out system or provided with on-site treatment facilities and upgraded to cater for disabled users where appropriate.*
- *The office and workshop servicing the north side of the harbour will be relocated from the Quarantine Station if necessary*

The situation has developed since the preparation of the Sydney Harbour National Park Plan of Management. The decision about consolidating NPWS staff at Middle Head has now been enacted.

6.2.2 Present Requirements for the Consolidation of Staff

This CMP addresses the site's potential in the long term. The long term use of the site has not yet been determined. At present NPWS is consolidating their Harbour North Staff in the Barracks buildings at Middle Head. The following is a list of present requirements for staffing:

General Staff

- *Office for the Area Manager*
- *Space for Administrative Staff*
- *Space for 3 full time staff*

Works Staff

- *Space for Works Supervisor*
- *Staff meeting room/lunch room/kitchen*
- *Library/Print/Plan room*
- *Toilets*
- *Crib room/change room/shower*
- *Lockers*

In addition, the requirement of spaces for materials stores and machinery has been identified.

A limited number of these uses will have an undesirable impact upon the fabric of the site. In particular the store of materials (such as earth, sand, aggregate, etc) and heavy machinery is not a desirable use to be accommodated on the historic part of the site.

The works staff require a robust structure in keeping with the nature of their activity. It is not desirable for these activities to be housed within the historic buildings on site. These

facilities would be best accommodated in a new structure. New structures should be located away from the archaeologically sensitive and historic part of the site.

6.3 CONSTRAINTS - STATUTORY CONTROLS

6.3.1 The Building Code of Australia

The Building Code of Australia governs the standard of building work in Australia. Dispensations can be sought on heritage grounds to achieve deemed-to-comply solutions that do not intrude on the historic fabric of the buildings. Achieving a certified fire safety strategy for the buildings on the site is a legal requirement that protects the occupants and the historic fabric of the buildings from danger.

Detailed responses to the requirements of the BCA upon individual buildings are included in the datasheets. There are no requirements outside the building structures.

6.3.2 Existing heritage controls

The heritage controls are generally a listing for the fortifications that in most cases include the barracks area.

Statutory Controls		Non-Statutory Controls	
LEP listing / State	<input type="checkbox"/> State	Register of the National Trust	<input checked="" type="checkbox"/> Classified
Heritage Inventory	<input type="checkbox"/> Local		
State Heritage Register	<input checked="" type="checkbox"/> Listed	RAIA Register of Significant Twentieth Century Architecture	<input type="checkbox"/> Classified
Register of the National Estate (Commonwealth)	<input checked="" type="checkbox"/> Listed		

Local Government LEP listing

The site as a whole is not listed under the Mosman LEP.

NSW Heritage Office - State Heritage Register

The buildings were listed as individual items when Gojak wrote his CMP on the fortifications in 2001. This now appears to have been revised, and the whole site including fortifications and barracks buildings has been included as one item (See Appendix D). In general this study supports the present approach, as the significance of the barracks and the fortifications are intertwined and difficult to separate.

The listing on the State Heritage Register requires the endorsement of a Conservation Management Plan to govern activities on the site. The NSW Heritage Council is the consent authority for the site.

Whilst the information contained in the State Heritage Register listing is inadequate to fully represent the site, the eventual combined Conservation Management Plans for each aspect of the site will be submitted to the NSW Heritage Council for endorsement, and will then be the statutory device to govern the works on the site. Upon endorsement, the combined CMP will grant the item an exemption from the notification and approvals requirements of the *NSW Heritage Act* for a period of five years.

Relics provisions

The NSW Heritage Act controls the uncovering, excavation or removal of historic relics. These may only be damaged, disturbed or collected with an excavation permit issued by the NSW Heritage Council or delegated authority.

The NSW Heritage Council may endorse an *Archaeological Management Plan* in order to identify when and under what circumstances archaeological supervision is required for ground disturbance. The *Archaeological Management Plan* can be a component of a Conservation Management Plan.

The Register of the National Estate

The Middle and Georges Head fortifications and barracks are listed within Sydney Harbour National Park on the Register of the National Estate. A copy of the listing is included in Appendix E.

Listing on the Register of the National Estate requires that Commonwealth agencies take note of the place's heritage status when proposing or carrying out actions. There are currently no Commonwealth government activities carried out within Middle and Georges Head.

The Register of the National Estate also lists the radio masts on the site (copy of listing attached as Appendix F and these should be considered when assessing the masts for possible removal.

Listing in the Sydney Harbour REP

No items in the study area have been identified in Regional Environmental Plan 23, Sydney and Middle Harbours REP Heritage Schedule.

Conforming with requirements to assess development impacts

Gojak is unclear as to whether this is a NPWS requirement, or a requirement under the Sydney Harbour REP. When proposing activities the NPWS is required to undertake a review of environmental factors (REF) to assess and determine the impacts of proposed developments and changes of use on Service estate. Some aspects of the recommendations of this plan may trigger this requirement, such as the works to clear or level the moat and the desire to open up vistas through the vegetation from buildings to the harbour.

6.3.3 National Parks and Wildlife Management Regulation 1997

On Service estate this regulation prohibits damage or disturbance of any 'object, deposit or material evidence' relating to historic use of an area older than 25 years without the consent of the Director-General.

6.4 NON - STATUTORY LISTINGS

6.4.1 National Trust Classification

The *National Trust* is a non-government organisation and has no legislative authority, although as a community group with long experience in heritage they have an influence upon local government.

The National trust listing focuses upon the fortification works, but does list MH29 individually. The Conservation Area listings may include the study site.

6.5 CONSTRAINTS - PHYSICAL CONDITION

The datasheets have identified the detailed issues regarding the physical condition of the buildings.

The constraint of physical condition is included for consideration in the heritage management processes of the site because of the enormous implications that are sometimes encountered when proposing changes to or continuing to use a building that has a physical limitation quite apart from its cultural significance or the statutory

limitations. These are most often encountered when a building's structural system will not accommodate change, or when the building's condition is so poor that the fabric has been damaged irretrievably.

None of the buildings on the subject site were considered to have been damaged irretrievably, but some limitations of use arise from the size and type of structures on the site.

7.0 Development of Conservation Policy

The Conservation Policy is developed in consideration of the best way to achieve the objectives stated in the constraints section above whilst maintaining the overriding goal of preserving the cultural significance of the site.

7.1 DATASHEETS

The detailed policy objectives, and the arguments for them, are included in the building datasheets. A summary of the main policy statements from the datasheets is included in Chapter 8 – Conservation Policy.

7.2 RESOLVING CONSTRAINTS

In the main there is a great deal of harmony between the identified significance of the study site and the constraints noted above. The following issues need some consideration in the development of policy.

7.2.1 NPWS Immediate Requirements

NPWS intend to occupy the site and buildings, at least in the short to medium term for ongoing residential accommodation, offices and works depot. These uses have the consequent need for toilet facilities, machinery and equipment, tools and material storage. Residential and office uses are compatible uses for the buildings.

Heavy machinery and materials stores are not compatible with the sensitivity of the site, and heavy traffic should not be permitted on a regular basis onto the core area of the site. These elements should be located in an area of low sensitivity with minimal impact.

7.2.2 New Structures on the Site

Any new structures on the site should make reference to Fig 5.4.1 – Archaeological Zoning Plan in determining a suitable location. The site is also an important headland under the *Sydney Harbour REP*, and views to the site are an important element in the wider Sydney Harbour National Park. One of these views is from Balmoral, which looks up towards MH29 and the site of the former tennis court and surrounds.

Activities that have potential for impact on significance should be confined to the area outside the former moat and wall, approximately the area adjacent to the former tennis court. The preferred option for any new structures would be in this zone with careful siting of new or temporary structures to minimise any visual or aesthetic impact. Another, less preferred response is to locate any temporary structure in the fill zone adjacent to MH29, with an orientation that reduces visual impact from Balmoral. Other sections of the site within the moat are not appropriate for future development.

Any proposed structures should ensure, by considerate design, that they have a low impact upon their environment through appropriate choice of materials, colours, roof form and size of building. In addition, screening through vegetation can be utilised to reduce impact.

7.2.3 Regenerating Bushland

One of the important aspects of the site to emerge from this study is how important the historic clearing of the site was to its function as a military establishment. It is now difficult to appreciate the purpose of the site due to regrowth of bushland during the latter phase of the military occupation.

The issue of bushland regrowth requires a balance between the cultural values of a historic site, and the natural values of a National Park environment. The NPWS Sydney

Harbour National Park Plan of Management recognises that regenerating vegetation should not be at the expense of a culturally significant site, and Gojak notes that the regrowth in the latter period of the military establishment is not significant. He encourages clearing in order to recover the lost cultural significance of the gun emplacements, and this study argues likewise to recover lost significance of the barracks site.

The site however cannot be returned to the cleared landscape of the early photographs. The place is now a bush covered headland and has significance as such. The policy recommends a limited clearing to recover the setting of the buildings, restore the significant roadways, and to reintroduce limited views to the harbour as part of an interpretation of the site's surveillance role. This will leave the headland appearance largely intact from the harbour.

7.2.4 Toilet facilities

The recommendations in the datasheets for MH29 and MH31 will result in greater pressure for new toilet facilities on the site, and there is also potential for such an issue to arise in MH26 and MH30.

Further opening of the site to the public will require the provision of a disabled toilet under the provisions of the BCA and the Disability Discrimination Act. At present there are public toilets provided at Middle Head Oval for the whole headland. There is also the potential for provision of disabled facilities within the Sydney Harbour Trust site.

None of the buildings on the site have been identified as having the potential to accommodate a disabled toilet due to size constraints and difficulties in providing access to AS1284.1. Given the sensitivity of the site, priority should be given to the provision of this facility outside the zone of the study area.

8.0 Conservation Policy

8.1 DEFINITIONS

<i>Fabric</i>	All the physical material of the place including components, fixtures, contents, and objects.
<i>Conservation</i>	All the processes of looking after a place so as to retain its cultural significance.
<i>Maintenance</i>	The continuous protective care of the fabric and setting of a place, and is to be distinguished from repair. Repair involves restoration or reconstruction.
<i>Preservation</i>	Maintaining the fabric of a place in its existing state and retarding deterioration.
<i>Restoration</i>	Returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.
<i>Reconstruction</i>	Returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric.
<i>Adaptation</i>	Modifying a place to suit the existing use or a proposed use.

8.2 RELATIONSHIP TO COMPOSITE CONSERVATION MANAGEMENT PLAN

8.2.1 This Conservation Management Plan for the Historic Buildings at Middle Head forms part of what is to be a comprehensive document for the Middle Head section of the Sydney Harbour National Park. It must be read in conjunction with the *Draft Conservation Plan for the Fortifications at Middle Head and Georges Head*, the *Interpretation Plan for Middle Head and Georges Head*, the *Natural Heritage Conservation Plan*, and a plan assessing the Aboriginal heritage of the site.

8.3 DATASHEETS

8.3.1 The sections identified as *policy*, *maintenance assessment*, and *BCA constraints* in the datasheets at the end of Chapter 4 of this plan form part of the detailed policy statements of this plan.

8.4 PLACE

8.4.1 The Middle Head Historic Buildings and the area within the defensive moat (ditch) is a place of high significance and is to be conserved in accordance with the methodology of the *ICOMOS Burra Charter 1999* as outlined by this Conservation Management Plan.

8.4.2 The historic buildings at Middle Head form a group of significant buildings intrinsically related to the Middle Head fortifications. The State Heritage Register listing for the site should retain the group and the fortifications as a single listing of State significance.

8.5 USE AND OWNERSHIP

8.5.1 The historic use of the site as a site of military training, surveillance, and defence activity is of high significance and all identified fabric, site and building relationships that demonstrate the site's military history is to be conserved and interpreted.

- 8.5.2 The National Parks and Wildlife Service, as a body legally committed to the conservation of historic cultural sites, is an appropriate custodian of the site.
- 8.5.3 Within the bounds of preserving the site's significance, works to allow compatible uses of the buildings may be undertaken under the direction of this Conservation Management Plan.

Table 8.5.4 Summary of Compatible Use assessments from building datasheets

Compatible Use	Stores/ Utility	Single Residence	Double Residence	Dormitory Residence	Office	Training/ conference	Interp Centre
MH26	- NC	- ACC	- NC	HIS ACC	CUR ACC	- ACC	- ACC
MH29	- NC	HIS ACC	CUR POSS	HIS ACC	- ACC	- ACC	- NC
MH30	- NC	HIS ACC	- NC	HIS ACC	- ACC	- NC	- ACC
MH31	- NC	CUR ACC	- NC	- POSS	- ACC	HIS ACC	- ACC
MH32	CUR ACC	- NC	- NC	- NC	- ACC	- NC	- ACC
MH34	CUR ACC	- NC	- NC	- NC	- NC	- NC	- NC
Historic Use				Compatibility			
- – not related				ACC – acceptable use			
HIS – historic use				NC – not compatible			
CUR – current use				POSS – possible use with adaptation			

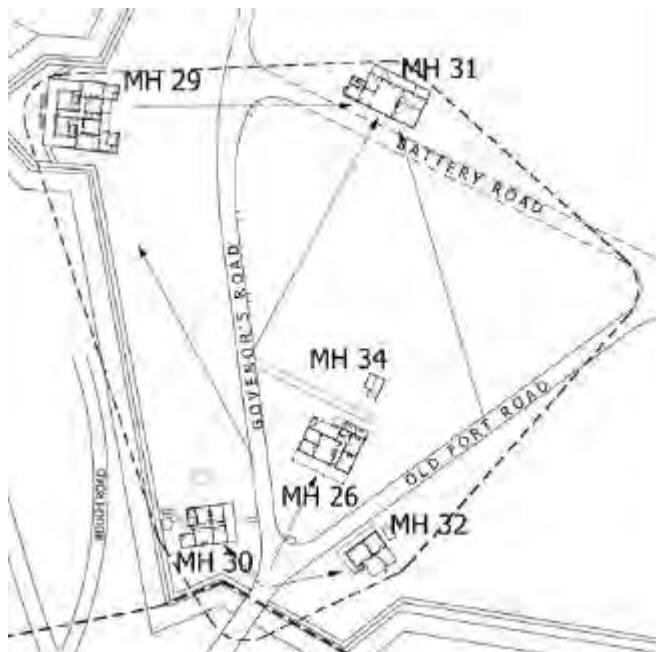
- 8.5.4 Compatible uses for buildings are to be assessed in accordance with Table 8.5.4. Uses defined as *not compatible* should be considered as inappropriate for the building. Any use defined as *acceptable* is an appropriate use.
- 8.5.5 Uses outside Table 8.5.4 should be considered against the criteria of relationship to the historic use, ability to be accommodated, impact upon the significance of the fabric, ongoing viability, and expectation of regular maintenance. Compatible uses are uses that have a minimal impact on all aspects of the significance of a building.
- 8.5.6 Compatible uses for buildings must not significantly increase traffic density on the site.

Explanation

Uses that generate large amounts of traffic will increase the potential for damage to the archaeologically sensitive areas of the site, and will generate a need for large areas of parking that cannot be accommodated without compromising the integrity of these areas.

- 8.6 SITE CONTEXT
- 8.6.1 No works or structures are to break or obscure the relationship between the barracks and the fortifications, and where possible their relationship is to be strengthened.
- 8.6.2 The relationship between the Middle Head barracks and fortifications and the other fortification sites within the Sydney Harbour National Park are to be strengthened where possible, and interpretation between the sites should be coordinated in order to enhance public perception of the various sites as a historically related unit.
- 8.6.3 A site management plan that is in accordance with this Conservation Management Plan (and accompanying documents) should be prepared and endorsed by NPWS to set out the medium term objectives for the site and to establish the important site relationships. An example of a Suggested Site Management Plan has been attached as Appendix G.

- 8.6.4 This *Conservation Management Plan* adopts the diagram Fig 5.3.1 as the area of the site that should remain free of new structures to maintain the visual curtilage of the structures.



Explanation

This diagram aims to ensure clear sight lines between buildings and to emphasise the triangle as an area clear of structures. It is important that new structures do not intrude on these inter-relationships.

Fig 5.3.1 Curtilage Diagram

- 8.6.5 All vegetation except ground cover and significant trees should be removed within the triangle formed by the three roadways within the site as shown in Appendix G and in Fig 5.3.1

Explanation

A clear site is important to the experience of the site in its historical context. As it is inappropriate to clear the whole headland, a limited amount of clearing will contribute to an understanding of the immediate context of the site and its remnant buildings.

- 8.6.6 Maintain existing cleared areas and extend the perimeter clearing
- to provide a cleared setting around MH29 and forecourt, MH32 and MH31,
 - to recover the defensive wall and line of moat at the entry, adjacent to MH29, and behind MH32
 - to redefine the cobble stone road to the inner fortifications
 - to define a surveillance corridor from MH31 to the harbour

Explanation

The buildings were traditionally set on a cleared headland. The regrowth of vegetation is intrusive to the historic character of the site. The site was traditionally framed by the moat and defensive wall and the vegetation obscuring them from view makes this significant relationship difficult to understand.

- 8.6.7 The container behind MH32 should be removed from the site. Remove or relocate the shed immediately adjacent MH32 (if shed is required) to an area of the site that does not impact upon building curtilage or archaeological sensitivity.

8.7 MANAGEMENT OF HISTORICAL ARCHAEOLOGICAL SITES AND AREAS

- 8.7.1 Disturbance of areas likely to contain archaeological features and deposits should be minimised. The historical archaeological sites and areas of archaeological potential within the Middle Head Historic Site should be managed in accordance with the Archaeological Zoning Plan (Fig 5.4.1). Management actions that may

affect the sites should be assessed through a formal archaeological assessment process.

Explanation

Many parts of the Middle Head Barracks Area are considered to have historical archaeological potential. Action should be taken to ensure that this resource is conserved and/or investigated as appropriate prior to any disturbance. NPWS should seek to minimise the need for disturbance of areas assessed to have High and Medium levels of potential. Where disturbance is unavoidable, prior archaeological assessment will be required.

8.7.2 Demolished structures should not be reconstructed. Their sites should be marked where known and interpreted as set out in an Interpretation Plan for the site. These sites are designated as having high sensitivity in the Archaeological Zoning Plan (Fig 5.4.1).

8.8 SITE MOVEMENT AND ACCESS

8.8.1 Large and/or heavy vehicles are not appropriate for regular access to the core of the site and should not generally be allowed beyond the entry gates. Limited access when other options are unavailable is allowed.

8.8.2 Battery Road should be redefined in gravel as an important part of the site's road network.

8.8.3 Access to Battery Road should be limited to pedestrians.

Explanation:

Battery Road is an important part of the early road network that should be interpreted. Sealing the road would cause damage to the existing fabric. Car traffic on the existing surface would cause damage to the existing fabric.

8.8.4 Visitor and staff parking areas should be consolidated to a zone of low impact.

8.8.5 The carport structure associated with MH31 should be removed.

8.8.6 Where possible, carport structures should be removed from the site. Residential site parking may continue within fenced grassed areas.

8.9 FABRIC

8.9.1 The historic fabric of the site and the nominated historic buildings are of high significance and are to be conserved. The conservation of the building fabric should refer to the recommendations in the Datasheets, and in particular the sections titled *policy* and *maintenance assessment*. Significant fabric on the site as a whole is identified in the Archaeological Zoning Plan.

8.9.2 All works to the fabric should be carried out by contractors and consultants trained in the conservation of historic buildings with suitable qualifications in their profession, trade or craft. All works to historical structures should be carried out using traditional materials and techniques unless modern equivalents provide substantial conservation benefits.

8.9.3 The datasheets have been arranged for a staged implementation. Urgent works should be undertaken within 12 months of endorsement of this plan.

8.9.4 Preservation works to prevent further damage to the fabric of the buildings are included in the relevant datasheets. Preservation works are generally works

designed to prevent damage to the building or element and can be found in the urgent works sections.

8.9.5 Required preservation works to the site generally include;

8.9.5.1 The removal of plant growth that is damaging historic fabric on the defensive wall and moat structures.

8.9.5.2 Clearing drainage lines and sumps to prevent water damage to elements

8.9.5.3 Undertaking fuel management programs within bush areas to protect structures from risk of fire.

8.9.5.4 Protect remnant fabric of early drains and early roadway kerbing from damage.

8.9.6 Restoration works to return the historic buildings to a known earlier state or removal of accretions are included in the datasheets. In all cases, restoration works need to be in accordance with Article 15.4 of the Burra Charter 1999. Later periods of work should be respected unless they are of much lesser significance than the earlier and they damage or obscure the earlier fabric's significance. Restoration works can be found in the general works recommendations as well as in the optional interpretative works category.

8.9.7 Recommended restoration works to the site generally include;

8.9.7.1 Remove fill where it obscures the defensive wall in association with the moat in accordance with Fig 4.20. Investigate the potential for further excavation in accordance with the directions of the NSW Plan of Management.

8.9.7.2 Remove all planting from the forecourt of MH29 and retain as a formal lawn.

8.9.7.3 Investigate significance of radio masts and if no significance can be supported, remove them from the site in accordance with the recommendations of the NPWS Plan of Management. Refer to Register of National Estate listing in Appendix F

8.9.7.4 Remove asbestos sheeting in cases where the material has broken down sufficiently to become a risk to public safety, or in cases where the fire risk is sufficient to justify the action. Ensure contractors are certified by the EPA and are fully inducted to OH&S requirements. Disposal is to be in accordance with the requirements of the EPA.

8.9.7.5 Restore the tennis courts

8.9.8 Reconstruction works to return the historic buildings to a known earlier state or to repair damage to the fabric are included in the datasheets. Reconstruction must be based on evidence and is only justified if it contributes to a greater understanding of the significance. Restoration works can be found in the general works recommendations but are more likely to be in the optional interpretative works category.

Note:

The Burra Charter 1999 (Article 20.2) has two means of ensuring that reconstruction work is identifiable. One is through a distinction in the fabric; the other is through interpretation and record keeping. Where a building has undergone considerable reconstruction of significant fabric, and that fabric is important to understanding the building, then the latter is the preferable identification method. This is especially the case in situations where the fabric has a limited life.

For example, the timber structures at Middle Head have definitive joinery detailing, and this detailing is the language of the architectural style. This element of the fabric allows the building to be understood. Some reconstruction work in the past has used simplified profiles to ensure that repair work is distinct from the original fabric. Over time this process breaks down the legibility of the joinery in the building, and some of the significance is lost. In this case, exactly matching profiles are an appropriate repair, and well kept records ensure that new fabric is identifiable.

- 8.9.9 Recommended reconstruction works to the site generally include;
- 8.9.9.1 *Reconstruct areas of the mass concrete defensive walls and moat that have broken down and are endangering the integrity of the wall. As an important material element and an early use of mass concrete, only specialists who are experienced in the analysis of mortar compositions should be employed to repair the wall.*
- 8.9.9.2 *Reconstruct damaged picket fences around MH29*
- 8.9.10 Adaptation works to modify a place to suit a new or existing use, to comply with building codes, or to protect the fabric from decay are included in the datasheets. Adaptation is given a dedicated section within the datasheets as all the buildings are in the process of change of use and this needs to be managed within a framework that respects the cultural significance of the fabric.
- 8.9.11 Adaptation works to the site generally include;
- 8.9.11.1 *Provide perimeter drainage lines to MH31 and MH29 as shown in Appendix G.*
- 8.9.11.2 *Where appropriate, provide security fencing to the site boundaries*
- 8.9.12 Maintenance works to keep the building in working order and to prevent damage to the fabric are included in the datasheets. Cyclical maintenance works are included with approximate frequencies.
- 8.9.13 Maintenance works for the site as a whole include;
- 8.9.13.1 *Clear and maintain drains and sumps on a two monthly basis.*
- 8.9.13.2 *Maintain the site in a clear and clean state. Prune trees regularly. Keep grass mown. Prevent vegetation from encroaching on site area.*
- 8.9.13.3 *Maintain edges to grass, do not let grass cover over sumps, drains or site features.*
- 8.9.13.4 *Maintain lawns*
- 8.9.13.5 *Maintain tennis court if reconstructed*
- 8.10 ASSOCIATIONS
- 8.10.1 Provide an interpretative response to the associations of significance as outlined in the Statement of Significance, and as described in the Interpretation Outline (Appendix H).
- 8.11 CONSERVATION PRINCIPLES OF CHANGE
- 8.11.1 Proposed changes are to be assessed against the provisions of this plan and subsequent plans as they are updated.
- 8.11.2 Change in order to maintain the use of the building is acceptable within the limits of preserving the significance of the fabric. Works to allow that change must be assessed against the likely impacts upon the significance of the use, the fabric, and the context of the place.
- 8.11.3 If change has the potential to reduce the significance of some aspect of the place, that change is to be reversible.
- 8.12 CONTENTS
- 8.12.1 Contents and fixtures that contribute to the understanding of the site should be retained on the site and their preservation ensured. In general the policies in the datasheets encourage existing fittings to be retained unless there are good reasons to do otherwise.

8.13 RECORDS AND DOCUMENT MANAGEMENT

- 8.13.1 The existing condition and relationships of the fabric is to be recorded in accordance with the *NSW Heritage Office's Archival Recording* guidelines before any works are carried out.
- 8.13.2 During conservation works, records of the processes undertaken, the fabric used, and any discoveries about the fabric made are to be photographically recorded and described in a report that is to be filed with the building information for future reference. Digital records are to be of sufficient quality to be legible upon retrieval.
- 8.13.3 An archival repository should be set up to manage the documentation related to the Middle Head site (and other NPWS sites). Wherever possible, historic documentation related to the history of the site should be kept together in one repository, and it would be best if this were to be on the site itself. This service should be publicly accessible, even if only by appointment.
- 8.13.4 Colour schemes for the buildings throughout their history are to be researched through paint scrapings, and to be recorded with the archive file for each element.

Note:

Research on the historic paint schemes provides important social information about the occupants and their society, and should be recorded. There is however no requirement to return buildings to a traditional paint scheme. Paint schemes are reversible and as such do not impact upon the significance of the fabric. A well chosen site based colour scheme is more important to the whole site than a mismatched group of individual schemes.

Traditional paint schemes run the risk of misjudging the date of the building through fabric changes (such as the possible cladding change to MH26), through historic removal of paint, or through simple difficulty matching colour schemes to a period. Paint scrapings must take into account the fading of external colours under UV radiation, the yellowing of enamel paints as they age, the discolouration from the build up of smoke and dust in the air, and the potential for the final coat to be an undercoat.

In addition, if the aim were to be historically correct, a traditional scheme could not be applied to a building that has undergone numerous additions and transformations, as an early paint scheme would be misapplied on the later elements.

- 8.13.5 This *Conservation Management Plan* is a public document and contains information of benefit to the local community. A public hard copy should be held in the Mosman Municipal Library in the *Local Studies* section.
- 8.13.6 A copy of this *Conservation Management Plan* should be retained by NPWS as a record of the decision making process, and should be filed with the main archive on the site.
- 8.13.7 Once endorsed, a copy of this *Conservation Management Plan* will be made available in the *Department of Urban Affairs & Planning* library in Sydney.
- 8.13.8 This *Conservation Management Plan* should be reviewed in the year 2007 and no later than 2012.
- 8.13.9 Paul Davies Pty Ltd retains the copyright for this *Conservation Management Plan*.

8.14 MANAGEMENT RESPONSIBILITIES

- 8.14.1 The NSW National Parks and Wildlife Service is to ensure that all staff, consultants and contractors have adequate conservation training and experience before they are permitted to work on the historic buildings at Middle Head. All works on the buildings or site need to refer to the Conservation Management Plan for the relevant part of the site. Project leaders are to clearly brief staff on the conservation objectives relevant to the proposed activity.
- 8.14.2 This plan is to be submitted to the NSW Heritage Office for endorsement. The co-ordination of this plan with the other plans for the site should be co-ordinated in the lead up to the submission.
- 8.14.3 The NSW National Parks and Wildlife Service is to assign the responsibility for conservation of the site to an individual or position on site. This person will need to be familiar with the contents of this *Conservation Management Plan* and the process of the *ICOMOS Burra Charter 1999*, and will need to be the interface between NPWS and such bodies as the local Council, NSW Heritage Office, architects, consultants, craftsmen, contractors and maintenance staff.
- 8.14.4 Where the responsible person does not have the level of expertise in conservation matters, a suitably qualified and experienced consultant should direct works and be responsible to NPWS representative. Inadequate experience can lead to errors of judgement that have costly implications, and the correct advice should be sought at all times.

9.0 Implementation

9.1 DATASHEETS

- 9.1.1 The datasheets include a staged implementation strategy. Priorities are placed upon works that will prevent damage to significant fabric, and upon cyclical maintenance that should begin immediately upon endorsement. Other works are defined as either medium term, or optional (as the means becomes available).

9.2 GENERAL SITE IMPLEMENTATION

- 9.2.1 The general site work is similar in that the preservation works and the maintenance works have the highest priority.
- 9.2.2 Record management and the management responsibilities should be dealt with as a priority for the site.

9.3 STRATEGIES AND ACTIONS FOR AREAS OF HISTORICAL ARCHAEOLOGICAL POTENTIAL

- 9.3.1 Refer to the archaeological zoning plan prior to planning any site works.
- 9.3.2 Plan all activities to minimise below ground disturbance.
- 9.3.3 Where below ground disturbance is unavoidable ensure that all necessary approvals under the *Heritage Act 1977* and *Heritage Amendment Act 1998* have been obtained prior to commencing any works. The Manager, NPWS Cultural Heritage Division has delegated authority for approval of minor archaeological works.
- 9.3.4 Allow sufficient planning time to allow for necessary archaeological assessment and implementation work.

10.0 Appendices

10.1 APPENDIX A - AUSTRALIA ICOMOS BURRA CHARTER, 1999

The Australia ICOMOS charter for the conservation of places of cultural significance

PREAMBLE

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988 and 26 November 1999.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

WHO IS THE CHARTER FOR?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

USING THE CHARTER

The Charter should be read as a whole. Many articles are interdependent. Articles in the Conservation Principles section are often further developed in the Conservation Processes and Conservation Practice sections. Headings have been included for ease of reading but do not form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained in the following Australia ICOMOS documents:

- Guidelines to the Burra Charter: Cultural Significance;
- Guidelines to the Burra Charter: Conservation Policy;
- Guidelines to the Burra Charter: Procedures for Undertaking Studies and Reports;
- Code on the Ethics of Coexistence in Conserving Significant Places

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the Australian Natural Heritage Charter and the Draft Guidelines for the Protection, Management and Use of Aboriginal and Torres Strait Islander Cultural Heritage Places.

WHY CONSERVE?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records that are important as tangible expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

ARTICLE 1 DEFINITION

For the purpose of this Charter:

- 1.1 Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.
- 1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*. Places may have a range of values for different individuals or groups.
- 1.3 *Fabric* means all the physical material of the *place* including components, fixtures, contents, and objects.
- 1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.
- 1.5 *Maintenance* means the continuous protective care of the *fabric* and *setting* of a *place*, and is to be distinguished from repair. Repair involves *restoration* or *reconstruction*.
- 1.6 *Preservation* means maintaining the *fabric* of a *place* in its existing state and retarding deterioration.
- 1.7 *Restoration* means returning the existing *fabric* of a *place* to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.
- 1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material into the *fabric*.
- 1.9 *Adaptation* means modifying a *place* to suit the existing *use* or a proposed use.
- 1.10 *Use* means the functions of a place, as well as the activities and practices that may occur at the place.
- 1.11 *Compatible use* means a *use* that respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.
- 1.12 *Setting* means the area around a *place*, which may include the visual catchment.
- 1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.
- 1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.
- 1.15 *Associations* mean the special connections that exist between people and a *place*.
- 1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses.
- 1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.

Conservation Principles

ARTICLE 2 CONSERVATION AND MANAGEMENT

- 2.1 *Places* of *cultural significance* should be conserved.
- 2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.
- 2.3 *Conservation* is an integral part of good management of *places* of *cultural significance*.
- 2.4 *Places* of *cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

ARTICLE 3 CAUTIOUS APPROACH

- 3.1 *Conservation* is based on a respect for the existing *fabric*, *use*, *associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.
- 3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

ARTICLE 4 KNOWLEDGE, SKILLS AND TECHNIQUES

- 4.1 *Conservation* should make use of all the knowledge, skills and disciplines that can contribute to the study and care of the *place*.

- 4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials that offer substantial conservation benefits may be appropriate.

ARTICLE 5 VALUES

- 5.1 *Conservation of a place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.
- 5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

ARTICLE 6 BURRA CHARTER PROCESS

- 6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy.
- 6.2 The policy for managing a *place* must be based on an understanding of its *cultural significance*.
- 6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.

ARTICLE 7 USE

- 7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.
- 7.2 A *place* should have a *compatible use*.

ARTICLE 8 SETTING

- 8.1 *Conservation* requires the retention of an appropriate visual *setting* and other relationships that contribute to the *cultural significance* of the *place*.
New construction, demolition, intrusions or other changes that would adversely affect the setting or relationships are not appropriate.

ARTICLE 9 LOCATION

- 9.1 The physical location of a *place* is part of its *cultural significance*. A building, work or other component of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.
- 9.2 Some buildings, works or other components of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other components do not have significant links with their present location, removal may be appropriate.
- 9.3 If any building, work or other component is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

ARTICLE 10 CONTENTS

- 10.1 Contents, fixtures and objects that contribute to the cultural significance of a place should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

ARTICLE 11 RELATED PLACES AND OBJECTS

- 11.1 The contribution that related places and related objects make to the cultural significance of the place should be retained.

ARTICLE 12 PARTICIPATION

- 12.1 *Conservation, interpretation* and management of a *place* should provide for the participation of people for whom the place has special *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

ARTICLE 13 CO-EXISTENCE OF CULTURAL VALUES

- 13.1 Co-existence of cultural values should be recognised, respected and encouraged, especially in cases where they conflict.

Conservation Processes

ARTICLE 14 CONSERVATION PROCESSES

- 14.1 *Conservation* may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance*, *preservation*, *restoration*, *reconstruction*, *adaptation* and *interpretation*; and will commonly include a combination of more than one of these.

ARTICLE 15 CHANGE

- 15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.
- 15.2 Changes that reduce cultural significance should be reversible, and be reversed when circumstances permit.
- 15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.
- 15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

ARTICLE 16 MAINTENANCE

- 16.1 *Maintenance* is fundamental to *conservation* and should be undertaken where *fabric* is of *cultural significance* and its *maintenance* is necessary to retain that *cultural significance*.

ARTICLE 17 PRESERVATION

- 17.1 *Preservation* is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance*, or where insufficient evidence is available to allow other *conservation* processes to be carried out.

ARTICLE 18 RESTORATION AND RECONSTRUCTION

- 18.1 *Restoration* and *reconstruction* should reveal culturally significant aspects of the *place*.

ARTICLE 19 RESTORATION

- 19.1 *Restoration* is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

ARTICLE 20 RECONSTRUCTION

- 20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In rare cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.
- 20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

ARTICLE 21 ADAPTATION

- 21.1 *Adaptation* must be limited to that which is essential to a use for the *place* determined in accordance with Articles 6 and 7.
- 21.2 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.
- 21.3 *Adaptation* should involve minimal change to significant fabric, achieved only after considering alternatives.

ARTICLE 22 NEW WORK

- 22.1 New work such as additions to the *place* may be acceptable where it does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.
- 22.2 New work should be readily identifiable as such.

ARTICLE 23 CONSERVING USE

- 23.1 Continuing, modifying or reinstating a significant *use* may be appropriate and preferred forms of *conservation*.

ARTICLE 24 RETAINING ASSOCIATIONS AND MEANINGS

- 24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.
- 24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

ARTICLE 25 INTERPRETATION

- 25.1 The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and enjoyment, and be culturally appropriate.

ARTICLE 26 APPLYING THE BURRA CHARTER PROCESS

- 26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.
- 26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.
- 26.3 Groups and individuals with *associations* with a *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

ARTICLE 27 MANAGING CHANGE

- 27.1 The impact of proposed changes on the *cultural significance* of a *place* should be analysed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes following analysis to better retain cultural significance.
- 27.2 Existing *fabric*, *use*, *associations* and *meanings* should be adequately recorded before any changes are made to the *place*.

ARTICLE 28 DISTURBANCE OF FABRIC

- 28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.
- 28.2 Investigation of a *place* that requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

ARTICLE 29 RESPONSIBILITY FOR DECISIONS

- 29.1 The organisations and individuals responsible for management decisions should be named and specific responsibility taken for each such decision.

ARTICLE 30 DIRECTION, SUPERVISION AND IMPLEMENTATION

30.1 Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

ARTICLE 31 DOCUMENTING EVIDENCE AND DECISIONS

31.1 A log of new evidence and additional decisions should be kept.

ARTICLE 32 RECORDS

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

ARTICLE 33 REMOVED FABRIC

33.1 Significant fabric that has been removed from a place including contents, fixtures and objects, should be catalogued, and protected in accordance with its cultural significance.

33.2 Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

ARTICLE 34 RESOURCES

34.1 Adequate resources should be provided for *conservation*.

10.2 APPENDIX B 1903 LIST - ASSESSMENT

The transfer of the site from the NSW Colonial Government to the Commonwealth at Federation required an assessment of the contents of the site. The list is necessarily brief and uses names of buildings that have in some cases become ambiguous. In addition many of the materials have been altered. The following is an attempt at reconciling the information about the main structures remaining on the site.

Barracks No 1

- Description:* Recreation, reading room store, caretaker's quarters, corrugated iron sides and roof, lined, brick chimney and verandahs
- Cost:* £252
- Assessment:* MH26 is lined with an early type of weatherboard, not corrugated iron. The layout in 1903 would have had one large room (possible recreation room), a separate room and kitchen (possible caretaker's quarters) with what appears to be a pantry (possible reading room store – i.e. bookshelves). It does have brick chimneys and two verandahs.
- Possible Scenario:* The building was lined with corrugated iron, which deteriorated and was replaced with timber cladding subsequent to 1903. No fabric evidence has been found to support this, but it is possible and would reconcile the reference.

Barracks No 2

- Description:* No's 1 & 2 Men's rooms, sergeants mess and offices, weatherboard building, lined corrugated iron roof, wooden ceiling
- Cost:* £735
- Assessment:* Fig 4.6 shows the original layout of the building with the two central rooms shaded. It is clear the structure originally consisted of two large central rooms (No's 1 & 2 Men's Rooms) with two rooms and a kitchen at one end (sergeants' mess) and three smaller rooms at the other end accessible from a verandah (sergeants' offices). The cost implies a large building, which correlates with the plan.

Cool store

- Description:* Weatherboard
- Cost:* £21
- Assessment:* Whilst there appears no physical evidence of action or design response that would contribute to MH34 being 'cooler' than any other structure, the building size and cladding fits the cost and description. The building is more likely a 'coal store'. It is likely that this is either Wilson's typographic error or an original misnomer on the 1903 list.

Lower barrack room

- Description:* Lower barrack room and outhouses, weatherboard
- Cost:* £210
- Assessment:* MH28, since demolished

Sergeant Major's Quarters

Description: Weatherboard, corrugated iron roof, verandah and outhouses
Cost: £294
Assessment: The description fits MH30. The outhouses are clearly early structures. Unfortunately the designation SM Quarters could also indicate Single Men's Quarters (MH31) and the description is sufficiently general to include both.

Guard house

Description: Brick, iron roof, wood ceiling, verandah
Cost: £176
Assessment: The description and name can only be MH32. The description shows the building unrendered in 1903, the ceilings timber lined, and the roof clad with corrugated iron, and the verandah intact.

Officers' Quarters

Description: Stone basement and verandah, supported on stone piers, stone wall and steps to verandah in front, weatherboard building with corrugated iron roof containing six rooms, verandah round three sides, outhouses and underground tanks
Cost: £1,050
Assessment: The description closely matches MH29. From this description it is clear that the original layout was still intact in 1903, the roof was still corrugated iron, the verandahs not yet enclosed, and that it is likely that the kitchen outbuilding had not yet been demolished.

Document D58 - transcript

State Properties Transferred to the Commonwealth

REPORT TO THE COMMITTEE 1903

Archive Reference A0 6/5544

	£
Battery with four open pits, excavated in rock with concrete floor, loading galleries and shell and small arms recesses, covered passages to reserve magazine for each gun, shell store, surgery, tackle store and passages to electric light station and DRF stations	12,600
Battery with two open gun pits, en barbette excavated in rock and built in concrete (very heavy work) covered passages two general store magazines, shell stores lifts &c	14,700
Old 18 Ton 10" RML battery, emplacement in rock, built in stone	3,150
Emplacement for QF gun	210
Battery for two guns, with shell store two magazines, two cartridge stores, artillery and expense stores, two DRF stations	6,300
Search and beam light and directing station for same	367/10/0
Electric light Engine Room, underground	2,625
Tank for same	105
Old submarine miners test room, underground with ventilation, skylight,	735

sight &c not in use	
B.C. station fitted with DRF system.	157/10/0
Two emplacements for Nordenfeldt machineguns with store and magazine (Obelisk Bay)	630
General store, weatherboard, corrugated iron roof, not lined, asphalt floor	126
Machine QF gun shed, same as above, boarded floor both with sliding doors and 400 gallon tanks	126
Artificers workshop	42
Two huts	84
General store, old school of gunnery – weatherboard, not lined, corrugated iron roof, very old	94/10/0
Barracks No 1 – recreation, reading room store, caretaker’s quarters, <i>corrugated iron sides</i> and roof, lined, brick chimney and verandahs	252
Barracks No 2 – Nos 1 & 2 Mens rooms, sergeants mess and offices, weatherboard building, lined corrugated iron roof, wooden ceiling	735
Canteen, brick, corrugated iron roof, wooden ceiling	210
Kitchen, two small stores and lavatories of weatherboard corrugated iron roof, brick chimney and concrete floor	262/10/0
Asphalt yard with three underground tanks	157/10/0
Q.M. store, brick, corrugated iron roof and ceiling	126
Two latrines	42
Women’s washhouse, weatherboard, corrugated iron roof, brick chimney	52/10/0
Cool store, weatherboard	21
Lower barrack room and outhouses, weatherboard	210
S.M. Quarters, weatherboard, corrugated iron roof, verandah and outhouses	294
Guard house, brick, iron roof, wood ceiling, verandah	176
Officers’ Quarters, stone basement and verandah, supported on stone piers, stone wall and steps to verandah in front, weatherboard building with corrugated iron roof containing six rooms, verandah round three sides, outhouses and underground tanks	1,050

10.3 APPENDIX C – REFERENCED SITE PLANS

List of site-related building plans, maps and drawings

- Trigonometric Survey of Port Jackson, 1828
- King Bungaree's Farm AO 4752 (Wilson 1985)
- Officers Quarters Middle Head (1530, 1528) James Barnet, 1878 ML James Barnet collection
- Outer and Inner Middle Head shewing position of batteries 1881 NPWS (Wilson 1985)
- Middle Head Block Plan of Buildings* NAA DHC FA 160 T40 nd (c1905) Series C4177
- Middle Head* NAA FA 160 T33 1905 Series C4177
- Middle Head District* NAA FA 160 T44
- Surface Drain and Roadway* Series C4177 1905
- Middle Head and Georges Heights* NAA DHC FA 160 T39 1907 Series C4177
- Plan of Gunnery Stores* NAA FA 160 T43 (plan of Guardhouse, Stables, School of Gunnery, Series C4177
- Soldiers' Institute [called Single Men's Quarters]) nd (c1905-1915)
- Middle Head Huts for AFA and AE* NAA FA 160 B39 1915 Series C4177
- Middle Head New Store Room* NAA FA 160 T47 (Soldiers' Institute Shed) Series C4177 1915
- Middle Head Mens Barracks* NAA FA 160 B3 *conversion into married mens quarters* Series C4177/14 1924
- Georges Heights, Middle Head and Chowder Bay* NPWS (Wilson 1985) *Electric Light Mains etc* 1934
- Middle Head proposed site of workshop etc* NAA SP857/3 Item PC/397 1939
- Site plans and drawings NAA SP553/1 Item 1 Middle Battery Fort Record Book 1940s
- Middle Head Married Quarter T2579* NPWS 8068, 8068A 1948 Also NAA SP459/1
- Middle Head Proposed alterations to married qtrs* NPWS 8393 1950
- Middle Head married qtrs 135, 136, 137, 138* NPWS CEN 9879 1953
- Middle Head MQs No9* NPWS CEN 382 1955
- Middle Head Site Plan* NPWS CEN 1515, /1, /2 Water Main Reticulation, Sewerage Reticulation 1960+
- Middle Head married qtrs 134* NPWS CEN 1769 1963
- Orthophotomap NPWS Mosman U1852-63 1978
- Middle Head married qtrs 134* NPWS CEN 3236 1981

10.4 APPENDIX D – STATE HERITAGE REGISTER LISTING

State Heritage Inventory - Item View

Middle Head Fort Complex

Item

Name of Item:

Middle Head Fort Complex

Other Name/s:

Middle Head Battery and Barracks

Type of Item:

Built

Primary Address:

Sydney Harbour National Park, Old Fort Road, Mosman, NSW 2088

Local Govt. Area:

Mosman

Property Description:

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number	Boundary:
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Physical Boundaries of Sydney Harbour National Park, from HMAS Platypus, south to Obelisk Point

All Addresses

Street Address Sydney Harbour National Park, Old Fort Road

Suburb/Town Mosman

LGA Mosman

Parish Willoughby

County Cumberland

Type Primary

Statement of Significance

The Middle Head Fort Complex at Mosman contains a collection of military fortifications and facilities that date from first settlement through to the mid-Twentieth Century, making one of the most significant historic areas in Sydney. Taken with other sites in Sydney, the technology and philosophy of military defence is demonstrated and recorded. The Park also has important scenic, ecological and geological qualities and a symbolic value as part of the visual landscape making up the social icon of Sydney Harbour.

Description

Designer: James Barnet **Builder:** Not known

Physical Description:

The Middle Head Fort Complex comprises a series of gun emplacements, magazines, structures and buildings dating from 1801 through to WWII. The most important individual sites are the group of buildings surviving from the Barracks, the Middle Head Fort and the Inner Middle Head Fort. Associated with these are early roads, a stone lined defensive moat and numerous isolated structures such as Observation Posts and Searchlight Posts, range finding stations, quarry sites and archaeological remnants of earlier structures. The whole area is littered with remnants of military occupation of various types and is related to adjoining areas still in military occupation.

Modifications and Dates:

Minor Alteration.

History

Historical Notes:

The European colonists first used Middle Head in 1801 for the erection of a defensive battery at Georges Head (sic) but this was abandoned after a few years. In 1815, Governor Maquarie established an Aboriginal farm, led by Bungaree, but this was unsuccessful and abandoned by 1822. In the 1850s, defensive works were commenced at Middle Head and Bradleys Head, with the major period of military activity commencing in the 1870s following the resumption of large portions of the headlands for this purpose. A major artillery, harbour defence and barracks complex became established over the next decades, with fortifications added and upgraded progressively till the 1930s and through WW2. By the 1960s, though, the military had ceased to use much of the area and in 1970, unused portions were transferred to the Sydney Harbour National Park and the area is now largely used for recreation - purposes.

Assessment of Significance

SHR Criteria g) -[Representative]

This item is aesthetically representative regionally.

This item is historically representative statewide.

This item is scientifically representative statewide.

This item is socially representative statewide.

Integrity/Intactness:

Intact

Items are assessed against the State Heritage Register (SHR) Criteria to determine the level of significance. Click [here](#) to view the SHR criteria. Refer to the Listings below for the level of statutory protection.

Listings

Heritage Listing	Listing Title	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan	Middle Head Fort Complex		23 Feb 01	41
Local Environmental Plan – Lapsed			G&M	

References

None

Study Details

Title	Year	Number	Author	Inspected by	Guidelines Used
Mosman Heritage Study	1996	498	Godden MacKay Logan Pty Ltd	TB	Yes

Images

(Click on Thumbnail for Full Size Image and Image Details)

Source of information for this entry

Name: Local Government **Email:** Contact Local Council **Web Page:** www.dlg.nsw.gov.au/

Administration

Database Number: 2060498 **File Number:** 498

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the [Database Manager](#).

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10.5 APPENDIX E - REGISTER OF THE NATIONAL ESTATE LISTING

Register of the National Estate Database

[RNE search | AHC Home | Disclaimer | ©]

Defence Site - Georges Heights and Middle Head, Georges Heights NSW

Class: Historic

Legal Status: Identified Place

Database Number: 102619

File Number: 1/13/026/0026

Statement of Significance:

The Defence Site within the headland complex of Middle Head and Georges Heights is important as an area of significant cultural and natural heritage interaction recording a long history of Aboriginal occupation and the defence of Sydney Harbour since European settlement. The two areas of the Defence Site are contiguous with two sub-areas of Sydney Harbour National Park (Register No. 2584) and linked by important evolving cultural landscape frameworks within the scenic foreshores of Sydney Harbour, perhaps Australia's best-known waterway, and a nationally significant icon. The cultural landscape framework comprises a range of historic sites and structures that contribute individually and in groups to the national estate values of the Defence Site. Not all structures or sites within the boundaries are of significance. Sites and places of individual significance include the Military Road Framework (Reg. No. 103266), Headquarters 8th Brigade Precinct (Reg. No. 103292), Batteries A83 & C9a (Reg. No. 103295), Battery B42 (Reg. No. 103294), WRAAC Officers Mess (Reg. No. 2871), Battery for Five Guns (Reg. No. 2870), Headquarters Training Command Precinct (Reg. No. 103338), 30 Terminal Squadron Precinct (Reg. No. 103339), Chowder Bay Submarine Miners Barracks (Reg. No. 2876), Navy Refuelling Depot and Caretakers House (Reg. No. 103337), Commonwealth Avenue Defence Housing (Reg. No. 103341), Ten Terminal Regiment Headquarters and AUSAID Training Centre Precinct (Reg. No. 103342) and the former Golf Clubhouse (Reg. No. 103293), most of which are or will be managed by the Sydney Harbour Federation Trust. HMAS Penguin (Reg. No. 103327) remains in use as an operational Naval Base and represents the continuing presence of Defence at Middle Head and Georges Heights.

The Defence Site occupies part of Middle Head and Georges Heights which are held in high esteem by Sydney residents for their natural and scenic values as a significant part of Sydney Harbour's foreshore, and as a relatively natural vantage point and landmark in an otherwise highly urbanised environment. Middle Head has featured in paintings of the Sydney Heads by artists such as Augustus Earle c.1825 and in photographic works by Holtermann c.1875 and, in conjunction with Georges Heights, has been a significant part of the cultural and social life of Sydney and the colony of NSW. (Criterion E.1 and G.1)

The remnant natural vegetation is contiguous with Sydney Harbour National Park that is considered one of the finest harbour foreshore parks in the world. (Criteria B.1 and D.1)

Middle Head and Georges Heights have significant associations with the science of botany and the study of eucalypts in Australia. A number of early eucalypt specimens were collected by botanists including Robert Brown in 1802, Ferdinand Von Mueller in 1855, Joseph Henry Maiden in 1897, and William S. Blakely in 1937. (Criterion C.1)

Middle Head also documents an important story in post-contact history. In 1815, Governor Macquarie attempted to settle King Bungaree and his people on the upper areas of Middle Head. (Criterion A.4)

As a natural vantage point, Middle Head and Georges Heights have played a significant role in the development of colonial and national defence policy and military training in Australia from the Napoleonic Wars until the 1960s and in the implementation of military technology important for its historic values, research and archaeological potential and social values. The evolving cultural landscapes of the headland areas, produced by over 150 years of military and naval use, and linked by a network of military roads, are important for their association with, and ability to illustrate, a broad range of processes which exemplify the strategic role of Middle Head and Georges Heights in the growth of Sydney, the Colony of New South Wales and Australia under Imperial, Colonial and Commonwealth government policies. In this respect the suite of defence related sites are particularly important in illustrating the adoption and development of military technology and the provision of housing for military personnel. The drill hall located in Headquarters 8th Brigade illustrates the universal training scheme which followed the 1909 Defence Act. The former Middle Head barracks complex is also important for its association with the Australian School of Pacific Administration and subsequently as the Commonwealth's AUSAid Centre from the 1970s. (Criterion A.4)

The defensive works at Middle Head and Georges Heights are particularly important for their association with; Lt Colonel J Gordon, who introduced the 'two tier' Gordon scheme for the defence of Sydney Harbour in 1845; Colonial Architect James Barnet for the design of the Artillery Barracks in 1873; and General Sir William Jervois RE and Lt Colonel Peter Scratchley, whose report of 1877 formed the basis of defence planning in Australia until after federation in 1901.

The growth of leisure and recreation in the late nineteenth and early twentieth centuries, and the establishment of Mosman Municipal Council in 1893, following the sub-divisions of the 1880s, is illustrated by a number of sites which are now important elements in the cultural landscapes associated with military use of the headlands. Important structures include the former Mosman Golf Club House of 1927 and the former 'Mosman Septic Tank' used as a swimming pool during the 1920s and which remains in use as part of HMAS Penguin, the focus of Naval training and hospitalisation in Sydney Harbour. (Criterion A.4 and Criterion H.1)

Australian Historic Themes: 4.2 Supplying urban services,
7.7 Defending Australia,
7.7.1 Providing for the common defence,
7.7.2 Preparing to face invasion,
7.7.3 Going to war,
8.1 Organising recreation

The evolving cultural landscapes contain a wide range of military sites, structures and complexes which are important for their ability to yield information which will lead to a wider understanding of the historical context, design, construction and operation of military barracks, defence housing, fortifications, gun batteries and defensive works in Australia from 1870 to the post war years of the twentieth century. (Criterion C.2)

Individual sites and complexes within the relict cultural landscape areas are important for their ability to demonstrate technical innovation in the early use of concrete and the principal characteristics and operation of military barracks, drill halls, defence housing, fortifications, gun batteries and defensive technology and policy in Australia and the architectural styles employed by (NSW) Colonial architects from 1870 and Commonwealth architects from 1901. (Criteria D.2 and F.1))

A number of individual sites are important in demonstrating functions or designs of exceptional interest. Amongst others these include: the Submarine Miners Barracks and

Workshops of 1890-93 at Chowder Bay; the former Military Hospital erected towards the end of the First World War; the three c.1930 roofed fuel storage tanks which were the first example of large scale camouflage in Australia; and HMAS Penguin as a purpose built naval training and hospitalisation complex. (Criterion B.2)

Defence land at Georges Heights and Middle Head is important for its contribution to the Sydney Harbour foreshores and contains places, which are highly valued by the community. The headland areas are also important for their associations with recreational use, which began in the nineteenth century and for their symbolic associations as part of the setting of Sydney Harbour and the Sydney Heads. (Criterion G.1)

It is possible that Indigenous cultural values of national estate significance may exist in this place. As yet, the AHC has not identified, documented or assessed these values.

Description :

BACKGROUND

Military fortifications and defence reserves have played a major role in the development of Sydney Harbour's landscapes. Middle Head has featured in paintings of the Sydney Heads by many artists including Augustus Earle c.1825 and in photographic works by Holtermann c.1875, recording gun batteries and fortifications. Consequently Middle Head and Georges Heights have been a significant part of the cultural and social life of the colony of NSW, as part of the backdrop to the harbour and as the site of major defence works. The defences of Port Jackson and Sydney Harbour have developed in phases subject to changes in defence policy.

HISTORY

1788-1839

During the early 1800s any threat to Sydney was seen as coming from the sea. Following a warning from Sir Joseph Banks, during the Napoleonic Wars, Governor King constructed a battery between Georges Heights and Middle Head in 1802 that remained the most forward battery in Sydney's defences until the 1850s. This site was chosen for its strategic position at the entrance to Port Jackson. The disadvantage of the site was its isolation and distance from Sydney. Middle Head was occupied for uses other than defence as early as 1815 with Governor Macquarie attempting unsuccessfully to form an Aboriginal settlement on Middle Head. By 1828 the area was described as King Bungaree's Farm, with King Bungaree having been appointed Chief of the Broken Bay tribes by the Governor. The venture appears to have failed. In 1839 the British government admitted that the harbour was defenceless, following the arrival of two American warships at night, and a number of reports into Harbour defences were commissioned.

1839-1877

A report by Captain G Barney led to the construction of defences on Pinchgut Island (now Fort Denison) and Bradley's Head but this work ceased in 1842. The first comprehensive plan for the defence of Sydney Harbour, made by Lt Colonel J Gordon in 1845, recognised the defence potential of the headlands near the entrance to Port Jackson. The 'Gordon' scheme was implemented from 1847 establishing a two line defensive system with the inner line at Sydney Cove with Georges Heights and Middle Head as part of an outer line of defence. The Gordon scheme recognised the limitations of armaments of the day with their limited range.

The Crimean War of 1853-56 accelerated the selection of sites for defensive purposes. Sites selected at Middle Head and Inner South Head were designed to command the entrance

to the harbour, the shipping channels and the area to seawards of the Heads. These outer works ceased in 1855 with the arrival of Sir William Denison, the new Governor of NSW. The experience of the American Civil War had restated the need for heavier weapons and more secure gun emplacements; the armoured casemate principle was to be used on open sites with circular gun pits in more protected areas. In 1855 Denison submitted a report that stressed that the inner defences were more important and works were concentrated in the inner harbour when Fort Denison was completed. To assist in navigation of the important shipping channel between Middle Head and the Sow and Pigs Reef two obelisks were constructed above Obelisk Bay in 1858.

In 1862 the British government resolved that colonies with responsible government should bear the cost of their own defence. During the 1860s a Royal Commission investigated the state of the colony's defences. By 1870 the last British (Imperial) line regiment had left Australia. The Defence Committee of September 1870 recommended the construction of batteries on Middle Head and Georges Heights as well as Bradley's Head, Steel Point and South Head. The 1870-1877 program concentrated on an outer line of defences with batteries erected on Middle Head and Georges Heights as well as South Head. A major development in 1872 was the formation of the Engineers Corps of NSW, which was to assist in the works. Plans were drawn up in the Office of the Colonial Architect James Barnet, with construction starting in 1871. Executed by 1876, this work included the construction of military roads. At Georges Heights three separate batteries (B42, A83 and A84) were commenced between 1871 and 1888. A new Rock Casemate Battery constructed 1872 -76 near the shoreline at Georges Heights was designed to operate in conjunction with the batteries at Georges Heights and a series of booms and submarine mine fields.

The Outer Middle Head Battery was commenced in January 1871 with at least 8 gun pits completed by 1874 with the Inner Middle Head Battery functional by 1881. Between 1871 and 1890 the barracks area of Middle Head was developed and a defensive moat constructed across the headland separating the gun batteries from the barracks. To support the development of defences, Artillery Barracks, designed by the office of the Colonial Architect, were erected in 1873 at Georges Heights. The lower barracks for Submarine Miners at Chowder Bay was equipped with outhouses and by 1877 Officers Quarters were in place. Fortifications were of necessity connected by roads; the road to Middle Head, Military Road, was commenced in 1870 and finished by 1871. These military roads allowed guns to be rolled to the batteries and provided strategic access between batteries and barracks. These roads also became, in part, thoroughfares for the area from the 1870s, when developer Richard Harnett organised the formation of many of the roads of Mosman.

1877-1900

British fortifications expert General Sir William Jervois RE (Royal Engineers) was appointed governor of South Australia in 1877. Sir William Jervois and Lt Colonel Peter Scratchley inspected each colony's defences leading to the Jervois-Scratchley reports, which were to form the basis of defence planning in Australia for the next 30 years. The reorganisation of the batteries on Middle Head and Georges Head and South Head between 1885 and 1890 resulted from their reports in which the need for better designed defences and for torpedoes or submarine mines was stressed. In 1878 submarine mine observing stations were constructed on Green Point, Inner South Head and Georges Heights. Recommendations made 1877-1885 included the construction of an Armoured Casemate Battery in 1882 at Georges Head, completed in 1886 under the direction of

Colonel Scratchley. By 1889 areas of Middle and Georges Heads were clearly identified as resumed by the Crown for military purposes.

Technical developments in the 1880s resulted in changes to the fortifications of Sydney Harbour, including the use of telephone lines in the late 1880s, and the construction of a Submarine Miners Observing Station in 1890 at Chowder Bay. The Submarine Mining facility was completed in 1893. The Hidden Guns of the 1880s were generally replaced in the 1890s, as a matter of policy, by Quick Firing Guns mounted in deep open concrete emplacements. Such emplacements were constructed on Georges Heights and Middle (and South) Head, remaining the standard form until after World War Two. The office of Colonial Architect James Barnet was responsible for much of the new works. The struggle between Lieut. Colonel de Wolski of the NSW Engineers and James Barnet in 1886, over defects in execution and design, was to lead to Barnet's retirement.

The development of defence facilities was mirrored by the subdivision of land north of Military Road in the 1880s. By July 1884 the North Shore Ferry Co was providing a regular ferry service to the city. This active subdivision continued in the 1890s with the Municipality of Mosman established in 1893. Balmoral Beach had been dedicated as a Public Reserve in 1878. During the 1880s and 1890s the headland areas provided recreational and viewing areas.

1900-1945

By 1903 the most important defence works in Sydney Harbour were concentrated on Georges Heights, Middle Head and at South Head.

Supporting structures at Georges Heights by 1903 included Sergeant Majors quarters, cool store, artificers workshop, Quarter Masters store, machine gun shed, women's wash house, huts, an asphalt (drill) yard, four married quarters, a married sergeants quarters, a laboratory for filling cartridges and an artillery store. Battery A84 stayed as a firing station for the minefield, while battery A83 kept its 6 inch pneumatic disappearing guns. Two other batteries were decommissioned. Towards the end of WW1 a weatherboard military hospital was established at Georges Heights.

In 1906 the 'pleasure ground', on the Clifton Estate at Chowder Bay, was purchased by Sydney Ferries Ltd, and a circular, offshore swimming pool added with space for over 3,000 spectators. This facility was mirrored by the 1904 Balmoral Beach 'Mosman Septic Tank', which in 1927 was converted into a swimming pool. The pool was utilised by the Cavill family until 1940 when resumed by the Navy and incorporated into HMAS Penguin. The Cavill family are reputed to have developed the 'Australian Crawl' swimming stroke.

In 1923 two portions of military land were leased to Mosman Council and Mosman Golf Club for public recreation. The golf club on 59 acres was a Clifton Gardens initiative having been founded in the Clifton Gardens Hotel at Chowder Bay. A nine-hole golf course was cleared and a clubhouse built for the 300 members overlooking Middle Harbour. The club operated until 1940, when Defence resumed the site for the development of HMAS Penguin.

The Submarine Miners Corps was disbanded in 1922 although Battery A84 remained a fortress command post until 1934 at Georges Heights. Other developments included the installation of anti torpedo boat guns during the 1920s following the re-armament of Singapore by Britain. This type of gun was also mounted on Georges Head and Obelisk Point to guard the anti-submarine net between Green Point and Georges Head.

The only fixed armaments at Georges Heights in 1939 were two 6 inch guns at battery B42 but these were moved to South Head. Defences were in general however, improved during the Second World War when Middle Head and Georges Heights were important barracks and administration centres for the military, as well as an active part of coastal fortifications. Barracks complexes were constructed at Middle Head and Georges Heights at this time. Additional rapid-fire guns were erected at Obelisk Point and Georges Head to provide covering fire for the Anti-Submarine Boom from Green Point to Georges Head. Similar guns were also erected at Inner Middle Head to cover the northern channel defined by the Sow and Pigs Reef. In 1942 the Navy's refuelling storage tanks at Chowder bay, erected in the 1930s, were, with a similar facility on Garden Island, camouflaged by the erection of pitched roofs above the tanks.

The only significant defence action in the harbour was the Japanese midget submarine raid in 1943. Radio monitoring equipment at the Middle Head Barracks intercepted the transmissions of the submarines alerting defence forces to the attack. Defence installations on Middle and Georges Heads failed to identify the attackers, although one of the submarines was caught in the anti-submarine net. HMAS Penguin, commissioned in 1942, has continued to operate on the northern edge of the headland since 1945. In 1945 Italian prisoners of war were housed in the barracks above Obelisk Bay.

1945-PRESENT

From 1946, with the end of the war, the almost obsolete military fortifications and barracks were rationalised. One group of barracks was handed over to the Department of Foreign Affairs to house the newly formed School of Pacific Administration, intended to train officers to work as administrators in the Pacific and Asian Islands. This school (AUSAID) played an important role in International Affairs over the next 40 years. In 1948 the Military Board decided to maintain a regular coastal artillery unit when Obelisk Section were returned to full serviceability. In 1948 the Police requested use of the area for its wireless receiving station.

The School of Military Intelligence took over part of Middle Head Barracks, constructing a barracks and teaching complex and using the fortifications for their training activities during the Vietnam War of the 1960s. However, from 1962 the role of the coastal artillery defences was considered to be outmoded.

In 1965 the army constructed houses for personnel along Middle Head Road at Georges Heights, adding to the prefabricated Riley-Newsum type houses erected in the 1950s, for the Navy, near HMAS Penguin. Between the 1960s and 1980s new single storey houses were also erected for Defence personnel on Commonwealth Avenue. The HMAS Penguin Naval Base at Balmoral developed rapidly with training schools established from 1951 to 1964 when it was the main submarine base in Sydney harbour. In support of these developments new refuelling facilities were erected at the Navy Refuelling Depot, including steel oil tanks and a new caretakers cottage. The Diving and Hydrographic Survey teams have had a long and close relationship with the base and continue to utilise the 'septic tank' pools. The increasing role of recreation in the defence forces was expressed in the construction of the Georges Heights and Naval ovals.

In 1979 parts of the headland were included in the newly formed Sydney Harbour National Park. The transfer excluded the Naval Base, HMAS Penguin, the 10th Terminal Squadron buildings, the School of Pacific Administration (AusAid Training Centre), the Army Maritime School at Chowder Bay and the majority of the Army headquarters training command and accommodation facilities at Georges Heights. By the 1980s military

units had been dismantled or converted to other uses, with the relocation of all Defence operations imminent.

PHYSICAL DESCRIPTION

The headland areas comprise a relict cultural landscape articulated by one of the most diverse collections of coastal defence heritage in Australia set amidst remnant native vegetation, which extends in places from the high water level into developed areas. Natural and Indigenous and historic cultural values are described separately.

Natural:

Middle and Georges Heads are contiguous sandstone headlands on the western side of the main channel of Sydney Harbour. The headlands are comprised primarily of Hawkesbury Sandstone and the soils overlying this parent material are shallow, easily eroded, infertile quartz sands.

The remaining vegetation of is dominated by a mature bangalay (*EUCALYPTUS BOTRYOIDES*) and red bloodwood (*E. GUMMIFERA*) woodland with a dense shrub understorey. Because the absence of fire in recent decades, sweet pittosporum (*PITTOSPORUM UNDULATUM*) now dominates the vegetation at Middle Head. The area has a reasonably comprehensive fauna list, with 129 species of birds, 1 species of frog, 11 species of reptiles and 8 species of mammals. Birds recorded at Middle Head include the whistling kite (*HALIASTUR SPHENURUS*), rufous fantail (*RHIPIDURA RUFIFRONS*) and the brown gerygone (*GERYGONE MOUKI*). Short-beaked echidnas (*TACHYGLOSSUS ACULEATUS*) have also been recorded at Middle Head.

Indigenous:

No evidence of King Bungaree's farm appears to remain above surface, although it is possible that there are archaeological remains. Indigenous rock carvings and engravings recorded in the nineteenth century have not been identified.

Historic:

Historic sites and precincts within the Defence Site are connected by Middle Head Road, which terminates at Middle Head in Governor's and Old Fort roads and at Chowder Bay via Chowder Bay Road. The Defence Site comprise an evolving cultural landscape, which retains pockets of native vegetation with introduced species identifying developed areas centred on the military road system. Military roads formed a strategic framework for gun emplacements, batteries and the nineteenth century military buildings as part of the evolving cultural landscape. The Military Roads Framework (Register No.103266) is an historically important link between the National Park areas (formerly Defence land) managed by the NSW NPWS.

Individually significant sites and structures within the Defence Site are discussed at items 1-10. Terminology reflects Defence usage and the 1998 Heritage Assessment by Godden Mackay Logan for Defence.

1. Headquarters 8th Brigade Precinct (Register No 103292) is adjacent to Rawson Park at the western end of the defence area on Cross Street, an expression of the original line of the Military Road. The site includes the regionally significant 1913 former Mosman Drill Hall and several locally significant weatherboard structures. The Drill Hall in its location illustrates the political and social role of drill halls in the community in the years preceding the First World War.

2. Gun Batteries and former Officers Mess

The ridge at Georges Heights, commanding the harbour approaches, was chosen in 1870 as the location for major defensive works comprising gun batteries A83, A84, B42 and C9a and the associated Artillery Barracks completed in 1873.

-Battery A83 (Register No. 103295) is largely an underground structure with above ground features limited to circular in ground concrete roofs to the gun pits, two entrances to the complex, and a brick walled observation post. The complex retains its underground passages, gunpowder magazine and gun pits relatively intact complete with many internal fittings which illustrate the working of the battery; in this respect it is the only battery in the area with timber fittings in place.

-Battery A84 (Battery for Five Guns Register No. 2870) was built as a five-gun battery with a sixth emplacement added on completion in 1873. The complex is connected with the 1873 Artillery Barracks complex via a sloping passageway cut in the bedrock.

-Battery C9a (Register No. 103295) appears to have been excavated 1871-1888. Only the pecked sandstone glacis of one gun pit is visible at ground level.

-Battery B42 (Register No. 103294) displays two periods of construction. The earliest construction 1877-1903, located below ground level, includes the Main gallery with its dead end branches and storage alcoves, the original Cartridge Stores, the Magazine access passage and the Powder Magazine.

-The WRAAC Officers Mess (Register No. 2871), completed in 1873 as an Artillery Barracks, is an ashlar sandstone Victorian Georgian style building roofed with corrugated galvanised iron set in an excavated terrace with steep rock faces to the rear and sides. The single storey, hipped roof section, at the front, was extended c.1891 by Lt Colonel de Wolski by the addition of a two storey gabled section at the rear.

3. Headquarters Training Command (Register No. 103338) occupies buildings associated with the development of Georges Heights as the command centre of artillery defences during the nineteenth century and the military hospital of the First World War period.

Nineteenth century buildings associated with the four batteries include the WRAAC Officers Mess (with battery A84), Gunshot Alley, at the junction of Suakim Drive and Commonwealth Avenue, weatherboard cottages and the remains of an Artillery Command Post, Building A76, of the 1890s.

- Gunshot Alley built 1898-1900 as accommodation for married soldiers. The terraced form is typical of army housing of the 1890s ;exterior and cross walls of brick with internal walls in timber; gabled pitched roofs with the end houses returned as hipped bays to enclose the verandah on the north side.

- Victorian Regency weatherboard cottage (Buildings A6, A7 &A8) built as an Officers residence c.1890s and a single storey weatherboard cottage of c.1900 erected opposite Gunshot Alley.

Twentieth century structures include single storey buildings and structures dating from WW1, WW2 and the post war era. The irregularly shaped asphalt parade ground utilises part of battery A83 as the site for the ceremonial Flagpole. Notable buildings include

- Hospital buildings 1914-1918, which together represent a single storey purpose-built weatherboard and corrugated galvanised iron military hospital, include Buildings 24, 21, 23, 15, 13, 29, 26, 27, 28, 3, 4 and 5.

-Barracks style accommodation c.1918 includes a single storey brick barracks and the associated brick kitchen in the Federation style. (Buildings 54, 55)

- Weatherboard buildings associated with the Inter War, Second World War and Post War periods include the Duty Room (A1). Buildings 38, 34, 32, 30, 9, 12 and 11.

4. 30 Terminal Squadron (Register No. 103339) includes the following significant structures. A c.1890 corrugated iron, paired gable roofed shed (Building B1) used to house artillery; a corrugated asbestos cement HQ building of c.1918 (Building B4); a range of weatherboard structures including the All Ranks Club (Building B3 c.1940), Orderly Room (Building B13) and a small weatherboard Gardeners shed/cottage associated with the operation of battery B42. Stores Buildings B16 and B17 erected c.1918 appear to have been associated with the military hospital of 1914-18. Supporting buildings include a range of buildings in brick, corrugated galvanised iron and weatherboard.

5. Chowder Bay Submarine Miners Barracks (Register No. 2876) was constructed from 1890-93 to provide accommodation, storage and operational facilities for the NSW Submarine Corps. The complex developed as a series of terraces connecting Chowder Bay Road with the wharf on the western, sheltered side of the headland. The complex is listed in the RNE at

6. Navy Refuelling Depot and Caretakers Cottage (Register No. 103337) comprises 2 (in use) fuel tanks and 3 1930s roofed storage tanks (Tanks 3, 4 & 5) with associated pumps, fire fighting equipment and a 1930s brick Naval Caretakers Cottage in the prevailing Functionalist style, linked to an off-shore refuelling facility. The roofed storage tanks are the first large-scale example of camouflage in Australia.

7. Commonwealth Avenue Defence Housing (Register No. 103341)

A group of Defence housing erected from the 1930s-1980s, which illustrates the characteristics of housing types provided for Defence personnel. Whilst the group as a whole has some historical significance only two are above the threshold for the RNE.

-Number 5 Commonwealth Avenue erected as Officers Quarters c.1935 in brick and tile in the prevailing Art Deco style

-Former Navy Cottage of the Riley-Newsum prefabricated type imported in the 1950s to meet the Commonwealth's demand for housing.

8. Middle Head Road Defence Housing

Eight Navy Cottages on Middle Head Road are representative examples of prefabricated Riley-Newsum houses manufactured in Britain in the early 1950s. This group of 8 has been reclad externally in Hardiplank. The associated group of masonry housing, MQ1101-1107, on the opposite side of Middle Head Road, was developed in the 1960s. Whilst the housing has some historical significance in illustrating the development and provision of housing types it is considered to be below the threshold for the RNE.

9. 10 Terminal Regiment Headquarters and AUSAID Training Centre Precinct (Register No. 103342)

The AUSAID Training Centre, formerly Middle Head Barracks, comprises some 15 vernacular timber and corrugated galvanised iron huts (Buildings in the range 1-21) characteristic of Defence barracks style accommodation in the 1939-45 period, known generally as type P-1 huts. As a group the huts comprise the largest surviving complex of standard weatherboard gabled P-1 type huts on the headland areas and are important for their use as an Italian POW camp.

The 10 Terminal Regiment complex comprises a range of buildings including three weatherboard huts (Buildings 1, 14 and 18), formerly part of the adjacent former Middle Head Barracks. The School of Military Intelligence commenced in 1959 was housed

primarily in red-brick buildings with green Marseilles tiled hipped roofs reflecting in general the influence of the Inter War Stripped Classical style employed at HMAS Penguin. Buildings of particular importance include Headquarters Building (1), Workshop and Rear Annexe (6 & 7), Officers Mess (2 and 3), and the later Other Ranks Accommodation (Barracks 1, 2, 3) comprising three 3-storey weatherboard dormitory buildings.

9. HMAS Penguin Naval Base (Register No. 103327) comprises significant groups of weatherboard and brick buildings in the bush setting of the Middle Harbour foreshores. The main complex comprises 12 buildings, including hospital and barracks style accommodation of 1-3 storeys with a nautical character constructed in brick with green Marseilles tiled hipped roofs. This group provides the dominant character of the site and includes: the Gatehouse (1); Conference Hall (2); Admin Support Centre (3); Naval Stores (4); Naval Hospital (8); Naval Police School (26); Accommodation (28); Senior Sailors Accommodation and Mess (17); Ward Room/Officers Mess (20); Administration (19); Information Technology (18); and Junior Sailors Quarters (16). Other structures include the Naval Flagstaff and the Sewer Vent Stack and Swimming Pool, formerly part of the Mosman Sewage Treatment Works.

The waterfront areas include a group of weatherboard single storey gabled buildings with green Marseilles tiled roofs, amongst the earliest erected on the site, associated with the jetty complex. Of particular significance are the Diving School (46) and Workshops, Stores and Administration (47, 48).

10. Golf Clubhouse

The former Mosman golf clubhouse (Register No. 103293) constructed in sandstone in the California Bungalow style in 1925 has been adapted for Defence use but retains its essential form intact as the focus of the former 9-hole golf course. The grassed area in front of the clubhouse provides an appropriate setting.

Condition and Integrity:

Historic:

The range of historic places and their integrity and condition was documented by Godden Mackay Logan (1998) for Defence as part of the Georges Heights and Middle Head Defence Site Heritage Assessment.

Specific details of the condition and integrity of each structure is beyond the scope of this assessment.

Location : About 60ha, at Georges Heights and Clifton Gardens, comprising generally the Department of Defence lands at Georges Heights/Middle Head, and in particular:

- (1) The whole of the property Headquarters 8th Brigade, Cross Street, Clifton Gardens, and
- (2) The whole of the Department of Defence land, Middle Head Road, Georges Heights, other than 1st Commando Company HQ and adjacent defence housing areas on Markham Close and at the end of Dominion Crescent, being the area to the north and west of a line consisting of the rear (south) boundaries of defence housing blocks to the north of Georges Heights Oval and extending westerly from Middle Head Road to the southern most point of Lot 19 DP831153, then south easterly via the alignment of the south west boundary of Lot 19 to its intersection with AMG easting 338280mE (approximate AMG point 38305452), then directly south westerly to the intersection of the

western boundary of Lot 202 with AMG easting 338200mE (approximate AMG point 38255445).

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The Register of the National Estate has been compiled since 1976. The Commission is in the process of developing and/or upgrading official statements of significance for places listed prior to 1991.

Report produced : 6/6/2002

RNEDB URL : <http://www.ahc.gov.au/register/easydatabase/database.html>

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10.6 APPENDIX F - REGISTER OF THE NATIONAL ESTATE LISTING
RADIO MASTS

Register of the National Estate Database

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Radio Signal Station - Middle Head, Georges Heights NSW

Class: Historic

Legal Status: Registered (25/08/1981)

Database Number: 101955

File Number: 1/13/026/0023

Nominator's Statement of Significance:

The Middle Head Radio Station played a significant role in the defence of Australia during World War II. It is perhaps the sole remaining example of such an installation, certainly in the Sydney Metropolitan Area. It was the first Radio Station to provide a frequency standard for measurement purposes and thus its importance to the early development of the science of communication seems clearly established.

Description:

HISTORY

The Middle Head Peninsula has had a long association with the Army and in particular the artillery. At a very early stage, major gun emplacements were established, as a part of the defences of Sydney, at various strategic points to the north, south and east of the headlands and along the shoreline, towards Chowder Bay, which prior to World War II was termed the Sydney Fortress.

In the years immediately prior to the Second World War, the area to the west of the old fortifications, which consists of a stone wall and moat, was used extensively for Militia activities, the Ready Reserve, as they would now be called. In 1939 the Militia provided initial training for newly recruited servicemen who were assigned to the Army Signal Corps and it appears that training continued in this area during the war. It was here that in 1939 as new recruits, Mr R Robert Carr and Mr D (Donald) Each were trained by the Militia based at Middle Head, and prior to their departure for active service elsewhere.

During the War years, two major Army Signals complexes were established, one close to the old Department of Communications Radio Station to the eastern end of the peninsula and the other located further west, at Lower Georges Heights. The eastern complex, which was the home of 12 LFC Signals, had access to six guyed radio masts each ninety feet in height. These had originally been erected under the supervision of a Sergeant Riley. They were set up with one pair close to the eastern perimeter cliffs, one pair to the north, close to Cobblers Beach and another pair overlooking Obelisk Beach. With these masts it was possible to operate with a receiving system which was known as dual diversity. A small side effect of the existence of the Army Signals aerial masts was that, under the influence of the wind, they produced a noise which could be heard both at day and night in the area.

The complex at Lower Georges Heights, which was later to become the home of Eastern Command Signals, also had substantial radio masts erected in the immediate area. The easternmost Army Signals complex formed a part of the Sydney Fortress together with North and South Heads and was controlled from Victoria Barracks. These four units formed the elements of a network, which was linked together by telephone line. In the case of Middle Head, this line passed under the Harbour as a submarine telephone cable

running from Watsons Bay to Cobblers Beach and across to North Head. At that time, the transmitters in use were Type 133 and receivers were Number Fours. The receivers were later replaced with improved apparatus which appears to have been the AR7, a radio made in Australia by the Melbourne based firm of Kingsley.

During the latter part of the War, the complex was commanded by Major A (Arthur) Tokorsky-Brown and in 1947 Major C (Charles) Alien took over the post. Promoted to the rank of Major in 1942, Major Alien had moved to Middle Head in 1945.

The eastern Signals establishment was to operate at this location until 1947, at which time the buildings were surrendered to the School of Pacific Administration. The Army Signals establishment transferred initially to timber huts immediately to the west and adjoining the complex that they had originally occupied. However, in the early 1950s the Signals operatives were entirely withdrawn from this part of Middle Head.

The land upon which is now located the remains of the Department of Communications Surveillance and Monitoring Station originally formed part of the old Middle Head component of the Sydney fortress. It is to be found directly to the east of the stone outer wall and moat. The buildings used to accommodate the transmitting and receiving apparatus had been the Guardhouse of the Fort and two cells, from this earlier period, are to be found in it still. In 1934, on the basis of a permissive occupancy, the site was handed over to the Post Master General's Department and was not finally vacated until 1985, by which time the Army had handed over the bulk of the site to the State of New South Wales. From 1934 on, a variety of antennae were erected. One of the tallest masts was said to have been from the sailing vessel, Helen B Sterling that foundered in 1922. This same mast was reputed to have been used initially by a commercial radio station, One of the other timber antenna poles that remain on the site also appears to have once been the mast of a sailing vessel.

By the time of the outbreak of War in 1939, the Postmaster General's Department had created a Wireless Branch under the superintendence of Mr W (Bill) Crawford with Mr J (John) Metherall, formerly of the British Navy, as Assistant Superintendent. Initially this had been formed to control and monitor the operations of the many broadcast stations that had appeared during the previous fifteen years or so and to ensure that the provisions of the Geneva Convention with regard to frequency of signals was complied with. In this context it appears that the advice of the eminent engineer, Sir George Julius (inventor of the Automatic Totaliser), was sought. Despite his advice that the site was unsuitable for establishing a frequency standard, unless a huge concrete base was provided for the equipment, the Post Office proceeded to develop it for this purpose. It appears that the station provided what seems to have been the first of a series of frequency stable transmissions for comparison purposes in Australia. The station call sign at this stage was VNS and the transmitter used was an old Lister. The frequency signal was actually produced at the Post Office research laboratories in Victoria and conveyed to VNS by means of telephone land line. At a later stage a number of other similar stations were created in other States.

At the present time, the only remaining radio station which provides such a service in Australia is located at Llandillo near Penrith in New South Wales: further this radio station, call sign VNG, is not in its original location.

Apart from monitoring the activities of radio amateurs and at this period the station was assigned the amateur call sign, VIK 2 AA.

During this same period the Wireless Branch was given the task of supervising the training of the radio operators recruited to the newly formed Department of Civil

Aviation and exams were conducted both at Middle Head and in the City at the Haymarket.

By 1940 the Middle Head Station had five personnel and it was at this stage that Mr G (George) Murden was recruited as a Telegraphist. During this period, although there was no official contact with the Military in the immediate area, new recruits to the Royal Australian Signals, would come up to the Shack, as the PMG personnel referred to the Station, to look at the installation. It was at this time that a new recruit, Mr D (Donald) Eatch, was able to inspect the Station.

With the commencement of the World War II, the duties of the Station expanded to the monitoring of all transmissions and during this period the volume of illicit traffic increased markedly. The favoured location for such traffic was in the 14 megaHertz or twenty metre amateur band. It appears that clandestine transmitters sprang up all over the place and in particular the activities of a station signing itself PAK were observed and reported to Melbourne, where direction finding equipment was located. During the time that this station was in operation, its procedure was to send out code in the form of five figure groups and from time to time change frequency unexpectedly. After some while this traffic ceased, Mr Murden recalls, and it was assumed that it was dealt with.

The other major task, during this early part of the War, was to intercept German press material sent out by the station which signed itself as DAN. The material was sent on to the Department of Information as a substitute for information which was no longer available from the pre-War press services.

With the entry of Japan into the War, the station personnel took steps to deal with this new situation. Together with the officer in charge, Mr V (Vivian) Horder, a Post Office trained Telephone mechanic, Mr Murden learnt the Japanese Morse Code. This has approximately twice as many characters as the International Morse Code. These two officers then commenced the interception of traffic from the North and the Pacific Islands. The intercepted material was provided to the newly created Military decoding and decyphering group which was known as the Discrimination Unit and was located in the Victoria Barracks, at Paddington. During this period the receivers in use were made by Hallicrafters, a well known American firm, but were not well suited to interception work, being rather unstable. At a later stage in the War, new receivers made by the American firm RCA and known as the AR 88 were brought into replace the earlier apparatus, with a significant improvement in performance.

Other personnel at the station during this period were Mr P (Peter) Sinclair and Mr C (Charlie) Carrol who were both Radio Inspectors and responsible for checking the radio systems of vessels which entered the Harbour. During the period that vessels were in the Harbour their radios were required to be sealed.

During this period, the Middle Head Radio Station kept a permanent 24 hour-a-day watch on the official Marine distress frequency of 500 KiloHertz (Kilocycles per second) or 600 metres. It was this factor which allowed the traffic of the Japanese submarines that entered Sydney Harbour to be intercepted. For reasons which are not at all clear, the first submarine which penetrated the Harbour by following a ferry through the boom, gave instructions to the second submarine on the Marine distress frequency. Naturally it was immediately intercepted by Middle Head and an alarm was given.

Following this, some time in 1943, it was decided that the Middle Head Station was very vulnerable to attack. When it was also decided that slit trenches were too hard to dig in the rocky peninsula, a decision was made to move the station to the old Post Office

building at Pyrnble. For the last couple of years of the War, the Middle Head Station was simply locked up and used to occasionally for demonstrations to visiting dignitaries.

At the end of the hostilities in 1946, the Post Master General's Department once more occupied the Middle Head Station and the former activities of frequency measuring and monitoring of radio traffic was resumed. It was at this time that Mr H (Horrie) Young, freshly demobilized from service in the Navy, joined the PMG and commenced work at Middle Head.

The operations of the Middle Head Radio Station were to continue, ultimately administered by the Department of Communications, until 1985, at which time the station was abandoned and passed into the care of the State of New South Wales as part of the Sydney Harbour National Park.

Unfortunately, given the passage of time since the Second World War, many of the operatives who were directly involved with the Middle Head Radio Station have long since deceased. This circumstance, coupled with the clandestine nature of the work being undertaken at the Middle Head Radio Station, has resulted in great difficulty in determining the full extent of its role in the War.

DESCRIPTION

The site consists of 8 wireless masts, 2 sheds and the radio house (former the guard house).

MOAT AND STONE WALL

Stone wall and moat surrounding the radio station site.

THE RADIO HOUSE

The radio house is a four room sandstone cottage [sic] with iron roof [sic] and a verandah on two sides. The verandah posts are simple timber posts with a curved decorative valance.

The interior was not inspected.

SHED

A shed stands adjacent (to the north-east) of the radio house.

WIRELESS MASTS

6 of the wireless masts (constructed during World War II) are 90ft: timber posts with switch gear. At least a couple of the timber antennae are reused ship's masts.

Steel masts - 3

CABLE HUT

corrugated iron

Condition and Integrity :

Location : Old Fort Rd, Georges Heights.

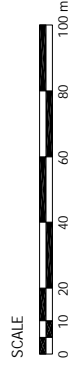
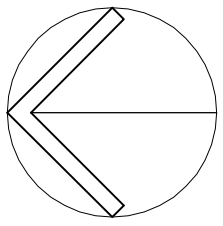
The Register of the National Estate has been compiled since 1976. The Commission is in the process of developing and/or upgrading official statements of significance for places listed prior to 1991.

Report produced : 6/6/2002

RNEDB URL : <http://www.ahc.gov.au/register/easydatabase/database.html>

10.7 APPENDIX G – SUGGESTED SITE MANAGEMENT PLAN

APPENDIX G SUGGESTED SITE MANAGEMENT PLAN



MIDDLE HEAD HISTORIC BUILDINGS
CONSERVATION MANAGEMENT PLAN
FOR NSW NPWS
PAUL DAVIES PTY LTD 2002

10.8 APPENDIX H - INTERPRETATION OUTLINE

10.8.1 *Interpretation strategies*

The Middle Head Barracks site offers a range of interpretive possibilities, centred around its history as a military site.

The site is small and easily accessible and therefore offers opportunities for a variety of interpretation strategies, including self-guided tours possibly using the cleared defensive moats as a path guide, and exterior and interior interpretation signage. Utilisation of at least one building as an interpretation/visitors centre is encouraged, possibly incorporating audio using oral histories and soundscape. A number of the buildings have been identified as a potential site for this use, with MH32 – Guardhouse identified as the preferred site. This should not be seen to restrict the potential of other sites identified as acceptable for this use.

Any interpretation should be considered as part of a wider interpretive trail involving the other fortified sites of Sydney Harbour, of which Middle Harbour was an integral part.

10.8.2 *Wider context*

Interpretation should cover the historical context of the original site construction, dealing with the changing relationship between Britain and the Australian colonies, and the influences of shifting European alliances on distant Australia.

It should present a brief overview of military technology of the time to give visitors an understanding of the thinking behind the construction of the fort. This discussion should also address the relationship between the buildings and the fortifications, and the relationship of Middle Head to other fortified sites around Sydney Harbour.

10.8.3 *Building technology and architecture*

Another brief topic should be the people and personalities of those involved in the site's design and layout, and the subsequent problems arising out of this. This should be coupled with discussion of the buildings themselves, particularly MH29 as an example of a small-scale domestic building designed by James Barnet, better known for his large sandstone civic buildings.

This topic area should also allude to the nature of government, military and institutional building generally, with specific reference to design, choice of materials and maintenance practices.

10.8.4 *Natural heritage*

An important aspect of interpretation should be the natural heritage of the site and how the establishment and use of Middle Head Barracks over time has impacted on the topography and vegetation. This is particularly important to assist visitors to understand how the site would have operated as a fort in the past, as well as explaining future changes in vegetation management of the site.

10.8.5 *Life in the military*

Because of its size the Middle Head Barracks offers the opportunity to present an easily accessible microcosm of Australian military life over the last 150 years. The small number of buildings, each with their clearly defined functions and spatial relationships, can give visitors an understanding of the processes and practices associated with life in a highly regimented and hierarchical community, whose main function is characterised by lengthy

periods of inactivity interspersed with shorter times of intense and potentially stressful watchfulness.

One area of interpretation that requires further research is the role of women on the site, both in its first main phase of development and use, and later as the buildings were converted to married quarters and developments during WWII.

10.9 APPENDIX J – WILSON LIST 1985

Building number	Building Name	Reference Number	Description
MH7	Entrenchments	D55:5, D58:3, M1, M35, M52	
MH8	Walls	D58:3 M1, M35, M52	M1 Line of walls sketched on plan of 1881 M35 Present by 1899 M52 Reference, plan of 1934
MH9	Magazine (1801 Battery)	D47:3, D48:2	D47:3 Almost complete 1801 D48:2 Reference August 1806
MH10	Commanding Officer's Station	M48	M48 Reference to Old C.O. Station associated with 10" 25 ton Battery 1900
MH11	Battery Commanders Station	M26, M36	M26 Plan for construction of B.C. Station August 1917
MH12	Battery Commanders Station (fitted with DRF)	D58:3	D58:3 Reference 1903
MH13	DRF station (80 Pdr Battery)	D58:3	D58:3 Reference 1903
MH22	Searchlight No. 23 (Inner Middle Head)	M5	M5 Present 1944
MH23	Electric Light Engine Room and Tank	D58:3 M25	D58:3 Present 1903
MH24	Cable Trenches	D49:5	D49:5 Under construction September 1889
MH25	Submarine Miners Observing Station	D49:5, D55:5, D58:3	D49:5 Under construction September 1889 D55:5 Under construction November 1890 D58:3 Reference, not in use 1903
MH26	Barrack No.1	D3:1, D4:1, D35:2, D36:2, D37:2, D40:2, D42:2, D43:2, D45:2, D46:2, D58:3 M1, M35, M52, M58 P6	D3:1 Tenders called in November 1875 D4:1 Tenders accepted January 1876 D35:2 Construction commenced and finished 1876 D36:2 Additions 1877 M52 Present 1934
MH27	Barrack No.2	D5:1, D5:3, D38:2, D39:2, D41:2, D44:2 D58:3 M1, M35, M52, M58, M59 P6	D5:1 Tenders called in September 1878 D5:3 Tenders accepted October 1878 D38:2 Under construction 1879 D39:2 Finished 1880

Building number	Building Name	Reference Number	Description
			D44:2 Alterations and repairs 1885 M52 Present 1934
MH28	Lower barrack Room and Outhouses	D58:3	D58:3 Present 1903
MH29	Officers' Quarters	D58:3 M1, M22a, M22b, M35, M52, M58, M59	M22 a & b Plans forming part of Bond signed January 1879 M1 Present on plan of 1881, described as 'new' M52 Present 1934
MH30	Sergeant Major's Quarters	D58:3 M52, M58, M59	D58:3 Present 1903
MH31	Soldier's Institute	D12:1 M52, M58, M59	D12:1 Tenders called June 1892 M58 Present 1907 M52 Present 1934
MH32	Guard House	D58:3 M35, M52, M58, M59	M35 Present 1899 M52 Present 1934
MH33	General Store	D58:3 M35, M58, M59	M35 Present 1899 M58 Present 1907
MH34	Cool Store	D58:3	D58:3 Present 1903
MH35	Kitchen	D58:3 M35, M58, M59	M35 Present 1899 M58 Present 1907
MH36	Canteen	D58:3 M35, M58, M59	M35 Present 1899 M58 Present 1907
MH37	Two latrines	D58:3 M35, M58, M59	M35 Present 1899 M58 Present 1907
MH38	General store, Old School of Gunnery	D58:3 M52, M58, M59	D58:3 Present 1903 M52 Present 1934
MH39	Artificers' Workshop	D58:3	D58:3 Present 1903
MH40	Q.M. Store	D58:3	D58:3 Present 1903
MH41	Machine QF Gun Shed with 400 gall. Tank	D58:3	D58:3 Present 1903
MH42	Women's Wash house	D58:3	D58:3 Present 1903
MH43	Hut	D58:3	D58:3 Present 1903
MH44	Hut	D58:3	D58:3 Present 1903
MH45	Shed (Store)	D55:2	D55:2 Reference June 1889, shed for cleaning H.P. gun will become store
MH46	Structure (unknown function - between barracks and 80Pdr Battery)	M35 P6	P6 Appears in photograph, post 1881 M35 Present 1899
MH47	Flagstaff	D36:2 M2	D36:2 Commenced and finished 1877

Building number	Building Name	Reference Number	Description
			M2 Appears on plan of 1894
MH48	Jetty, Cobblers Beach	D58:3 M2, M49, M52	D9:1 Tenders called January 1885 D9:2 Tender accepted March 1885 M2 Present 1894 M52 Present 1934
MH49	Roads	D30:2 M1, M35, M49, M52, M58, M59	D30:2 Road to Middle Head commenced 1870 D30:2 Road to Middle Head finished 1871 M1 Road to Inner Middle Head Battery present 1881 M1 Road to Outer Middle Head Battery present 1881 M1 Road to rear of New barracks 1881 M49 Road to Cobblers Beach present 1885-94
MH50	Asphalt yard	D58:3	D58:3 Present 1903

10.10 APPENDIX K - COMPATIBILITY OF ROOFING MATERIALS

When selecting a roofing material care must be taken that the combination of materials is compatible and will not contribute to premature failure. The following table is a summary guideline for selection of compatible materials. The notes below must be read with the table, as there are circumstances where the materials may not perform as outlined below and galvanic activity is governed by circumstances. This table has been prepared from available information.

Table K.1 – Summary of Metal Compatibility

Upper ↑	Zinc or galvanised	Zincalume® BHP uSteel	Aluminium	Lead	Unprotected Steel	Unprotected Iron	Stainless 304 active	Copper	Stainless 316 active	Stainless 304 passive	Stainless 316 passive
Lower ↓											
Zinc or galv		☹️↓	☹️↓		☹️↓	☹️↓		☹️↓			
Zincalume®	☹️↑		(1)	☹️↓	☹️↓	☹️↓		☹️↓			
Aluminium	☹️↑							☹️↓			
Lead											
Unprotected steel	☹️↑	☹️↓	☹️↓		(2)	(2)	(2)	☹️↓		(2)	
Unprotected Iron	☹️↑	☹️↓	☹️↓		(2)	(2)	(2)	☹️↓		(2)	
Stainless 304 active											
Copper	☹️↑	☹️↑	☹️↑		☹️↑	☹️↑					
Stainless 316 active											
Stainless 304 passive											
Stainless 316 passive											

- ☹️↓ - Corrodes lower material – do not use
- ☹️↑ - Corrodes upper material – separation strip required
- Compatible
- Largely compatible - (1) possible discolouration
- (2) rust products may affect base metal
- Forms protective oxide on more reactive metal – note discolouration effects

References: MIL-STD-889
Army Missile Command Report RS-TR-67-11, "Practical Galvanic Series" from www.eaa1000.av.org/technic/alodine/galvanic.htm
BHP Steel ZINCALUME® Steel Technical Bulletin #2
Schlenker, B.R. Introduction to Material Science – SI Edition
Sydney 1974

NOTES ON CORROSION TABLE

Metal compatibility is concerned with protection from corrosion (oxidisation). The natural rate of corrosion will be greatly accelerated if a metal of low reactivity (cathodic) is in contact with one of high reactivity (anodic). In this case the highly reactive metal will *sacrifice* itself to protect the low reactivity metal, causing a greater than normal rate of corrosion. This process is summarised by a concept known as the *Galvanic Series*. The most common use of this property of metals is in the *galvanising* of steel, where a zinc coating is used as a *sacrificial anode* to protect the steel sheet. It will do this even if the sheet is scratched, because it involves swapping electrons to protect the steel.

The Galvanic Series below is a list of metals arranged from most reactive to the least reactive. Metals that are close together are largely compatible with each other; those far apart are not compatible.

Table K.2 – Galvanic Series

<p>Anodic End (Sacrificial) Magnesium <i>Zinc</i> (hot-dip, die cast, or plated) <i>Zincalume</i>® (according to BHP website) Aluminium (various types) Tin (plated) <i>Lead</i> <i>Steel 1010</i> Iron (cast) Nickel (plated) Chromium (Plated) <i>Stainless steel 304</i> (active) Yellow Brass Muntz Metal 280 Bronze 220 <i>Copper 110</i> Red Brass Monel 400 <i>Stainless steel 316</i> (active) <i>Stainless steel 304</i> (passive) <i>Stainless steel 316L</i> (passive) Titanium Alloys Silver Gold Graphite Cathodic End (Noble or Protected)</p>

VARIATIONS IN MATERIAL PERFORMANCE

The above list is based on electro-potential differences in pure metals and specified alloys (I have removed the numerous aluminium phases for clarity). When considering the performance of a material in practice, the following issues can affect performance.

1. Variation in Alloys and Phases

Metals like aluminium, stainless steel and steel have numerous commercial alloy and metal phase variations. Each of these has different properties, although the variation is usually within a range similar to the base metal.

Stainless steel has the largest variation, and care must be taken to select the correct grade when using it in combination with metals like copper. Stainless steel also has variations depending on whether it has been passivated (similar to pre-weathered) or not. In practice passivation is usually specified in construction projects.

The variations in other iron and steels can substantially affect their properties. The product of the corrosion of mild steel (rust) will enhance the rate of corrosion of the steel base metal, whereas the rust on cast iron forms a protective barrier that retards its deterioration, and allows early cast iron downpipes to survive the discharge from a copper roof. Similarly wrought iron has better corrosion performance than mild steel.

BHP Zinalume® (incl. Colorbond®) is a relatively complex alloy of zinc and aluminium coated steel, and reference should be made to the manufacturer's recommendations when using this product. In general, Zinalume® and Colorbond® products are like galvanised products in that they perform best when used as a complete system.

2. Variation in potential for oxides

In similar fashion to the rust on steel (above), other materials vary greatly in practice because of the performance of their oxides. Whilst pure aluminium is extremely reactive, its oxides are relatively unreactive and (as a cathode) can contribute to the accelerated corrosion of materials (such as zinc and iron). This oxide of aluminium forms part of the protection of the BHP Zinalume® product and is the reason why raw aluminium products are long lasting. Lead and copper overwash will still breakdown this oxide coating and will then attack the base metal.

Lead and copper also form oxides (or sometimes a sulphate, chloride or carbonate), but these do not appear to cause damage to other materials beyond what would be expected of the base metal, and contribute to the protection of the base metal. The development of oxides contributes to the long life associated with lead flashings, even though the base metal is more reactive than unprotected steel.

Zinc sheeting, and the zinc coating on galvanized steel products develop a protective surface film as a result of natural weathering. This provides the longevity of performance that is typically known of galvanized products. Rainwater will dissolve small amounts of minerals and salts from the zinc surface (various oxides and the like). These minerals and salts promote and maintain the protective film and enhance the corrosion resistance of other galvanized steel products such as gutters and valleys. This protective coating is only obtainable from a completely galvanised system from capping to downpipe.

3. Variation due to protective measures

Table K.1 is a table largely regarding the properties of the base metal. Such treatments as galvanising, electro-plating, weathering and ageing will contribute to substantial changes in the properties of a material. The advantage of anodic-sacrificial systems like galvanising is that they are self healing, whereas an electroplated protective coating will not be effective if damaged. If the anode (such as the galvanised coating) has a large area and the cathode (such as an exposed edge or scratch in the iron sheet) is small, then the process of sacrificial protection is likely to be successful. If the reverse happens, the protection will not survive long enough to be effective.

A simple physical separation strip can (where there is no overwash) prevent the galvanic action from occurring. In this case a copper gutter can be installed on a galvanised roof, as long as there is a physical separation, and the gutter cannot discharge onto a lower galvanised roof.

4. Other factors in the corrosion of metals

Corrosion can also be accelerated by other environmental factors. Chlorine has a particularly detrimental affect on both steel and stainless steels. This will have an impact in marine environments and in chlorinated swimming pool related spaces. In these areas only high grade stainless steels and metals that form protective chlorides (such as titanium-zinc and copper) should be used, although the resulting colours should be researched.

Heavy pollution, acidic atmospheric conditions, graphite fixtures and some chemicals will also contribute to the deterioration of metals, perhaps only in the nature of unsightly discolouration. Chemically treated timbers (and some natural timber oils such as Western Red Cedar) will also impact upon the life of a metal, particularly copper and zincalume.

10.11 APPENDIX L - KNOWN OCCUPANTS OF OFFICERS QUARTERS

Extract from AWM MSS0762

History of Middle Head and Biography of William Throsby Bridges (who lived there for seven years) compiled by H G Ricketts

Known Occupants of Officers Quarters – Building No 14

Later Permanent Married Quarter No 9, Middle Head, Mosman

1878	Built for single officers
1884-85	Lieutenant A G H Morris later Major A G H Morris RAA
1886	Lieutenant A G H Morris and Lieutenant W T Bridges
1887-91	Lieutenant W T Bridges, NSW Permanent Artillery
1882-93	Captain W T Bridges later Major-General Sir William T Bridges, KCB, KCMG
1908	Major J C Hawker RAA
1909	Lieutenant A G R Cross RAA
1911-12	Major A G H Morris RAA
1913-15	Lieutenant W Tomkinson RAA
1926-27	Major J H Russell
1928-29	Major G E Manchester
1930-34	Major F W Lennox
1935-38	Major P W Dobson

10.12 GLOSSARY OF TERMS

The following abbreviations and terms are used throughout this document.

60/60/60 FRL	<i>A fire rating for a material that maintains its structure/integrity/insulation for 60 minutes as defined by the Building Code of Australia. This means the material will not collapse, not break down to allow fire through itself, and not allow heat conduction spread a fire. This is a certified rating by an approved certification authority.</i>
AC	<i>Asbestos cement sheeting</i>
BCA	<i>Building Code of Australia</i>
Bolection mould	<i>A decorative joinery trim (usually in door panels) that protrudes beyond the surface of the door</i>
FC	<i>Fibre cement sheeting</i>
Staff mould	<i>A rounded moulding used on an exposed corner of rendered wall, usually internally.</i>
Stop chamfer	<i>A bevelled edge of timber or render that does not continue to the end of the corner.</i>
Twelve pane double hung window	<i>A window with six panes in the upper sash, and six panes in the lower sash. The window indicates either a Georgian or Georgian Revival style.</i>

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Sydney 1974



Fig A1 - Site Aerial Photo 1930 - CMA

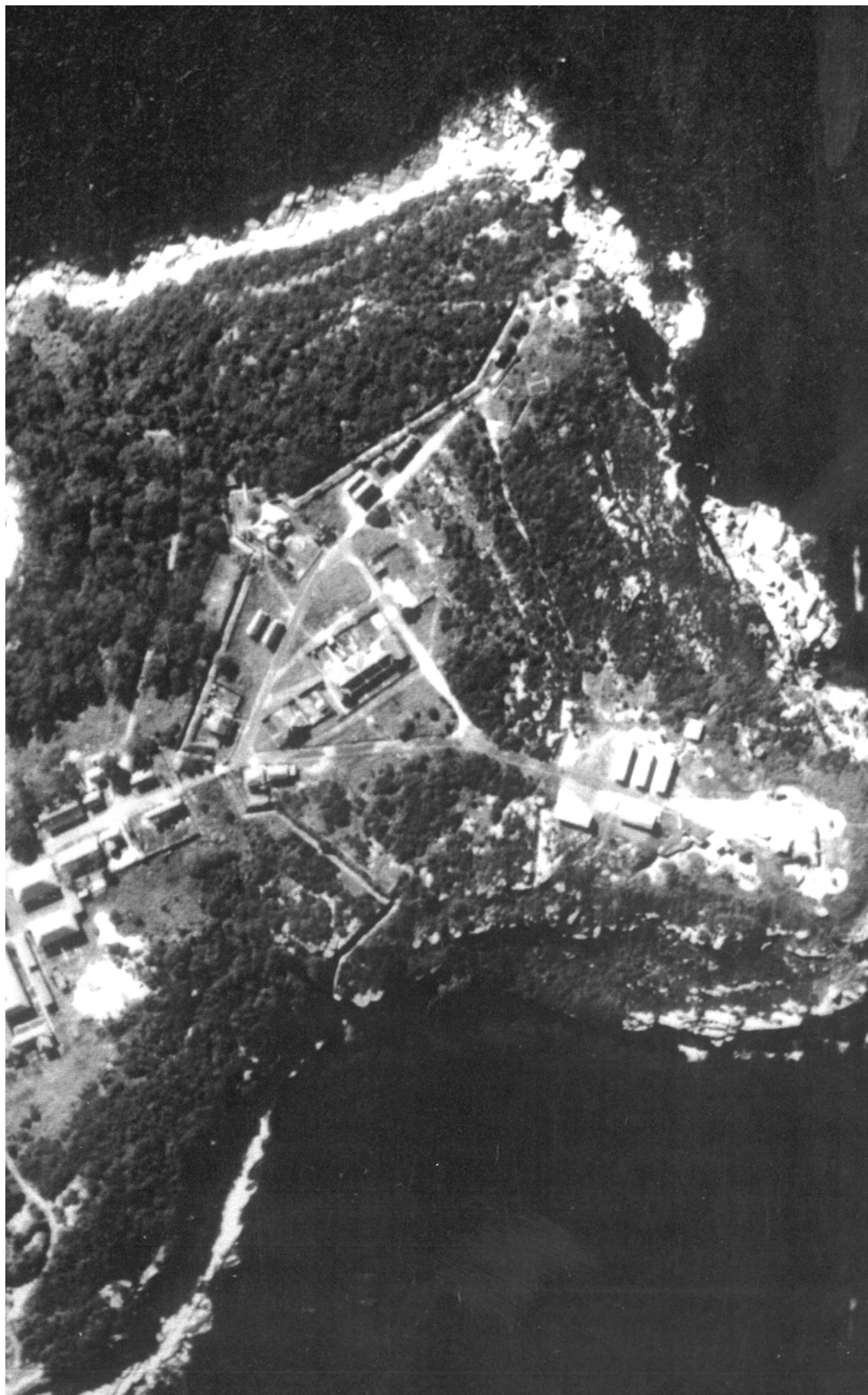


Fig A2 - Site Aerial Photo 1951 - CMA



Fig A3 - Site Aerial Photo 1978 - NSW 2707 168



Fig A4 - Site Aerial
Photograph c2000
www.ipan.australis.net.au
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