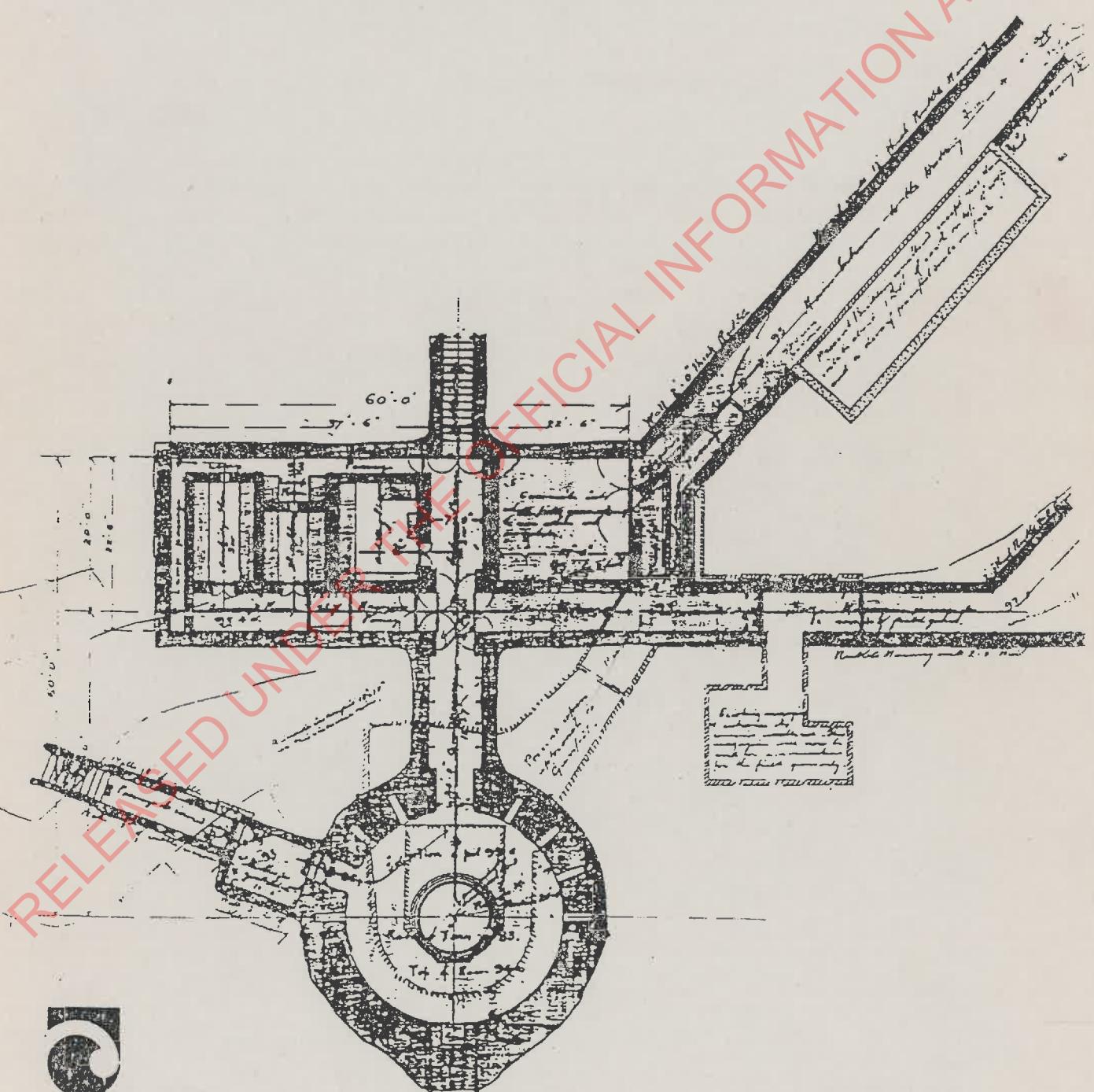


NORTH HEAD INVESTIGATION, 1992
INTERIM RESEARCH REPORT



J.L.Treadwell

CONSERVATION
TE PAPA ATAWHAI

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INTERIM RESEARCH REPORT

by

JL Treadwell

This report has been commissioned and supervised by the Department of Conservation, Auckland.

Cover: Part plan of North Battery showing modifications necessary to emplace the 8" breech loading gun in the former 7" muzzle loading gun pit.

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Auckland



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TE PAPA ATAWHAI

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PREFACE

This report is the first stage in the ongoing efforts by the Department of Conservation to investigate the old Fort at North Head, on Auckland's North Shore. Over the years there have been suggestions that the tunnels and underground structures visible today do not constitute all that has existed at the Fort.

A number of people have claimed that they remember other tunnels that are no longer visible. It has also been claimed that these "hidden" tunnels may contain old ammunition.

It is for reasons of public safety that this investigation is being carried out.

Before any physical examination of the Fort is started a full search of all the documentary records available was carried out. This report records this work. It should be noted that this is a working document, not a final report. It was prepared originally to determine in which areas it would be most productive to carry out further work. It is presented as a referenced chronology with little analysis.

As well as the chronology, copies of a number of original documents are included. These are mostly from the 1920s, when the Royal Navy used parts of the Fort and its magazine space for storing naval ammunition. The Royal Naval assessors of the time have left a fascinating account of the Fort and its layout at this date. Also included is a 1927 letter from the Devonport Borough Council to the Minister of Defence voicing local fears over ammunition storage in the Borough. The association of forts, ammunition and the concerns of the residents of Devonport has a long history.

Any comments or further information are welcome. This can be addressed to

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CONTENTS

	Page №
PREFACE	i
1.0 INTRODUCTION	
1.1 Background to this report	1
1.2 Method	1
1.3 Summary	1
2.0 CHRONOLOGY OF CONSTRUCTION AND EVENTS ON NORTH HEAD 1885 TO 1975	3
3.0 APPENDICES	35
1. List of general abbreviations	
2. List of reference abbreviations	
3. Material surveyed:	
National Archives Wellington	
National Archives Auckland	
Defence Records Registry Wellington	
Naval Museum & Library Devonport	
North Shore City, Devonport Service Centre	
Whites Aviation, Browns Bay	
Walsh Memorial Library, Museum of Transport & Technology	
Works Consultancy Services, Auckland	
Waiouru Army Museum	
4) Archival Correspondence	
5) Correspondence	

FIGURE

1. Plan of North Battery showing Engine Room (c.1885)	31
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PLATES

1. Excavation in vicinity of laboratory site (c. 1885)	32
2. Excavation in progress near South Battery entrance (c. 1904)	33
3. Excavation for Main Magazine (c. 1910)	34

1.0 INTRODUCTION

1.1 Background to this report

In 1992 the Department of Conservation began an investigation into the rumours concerning tunnels and ammunition concealed at North Head. At the request of and under the direction of the Department, archival research was initiated as part of the investigation and as a precursor to the physical examination of the site.

1.2 Method

Rather than conduct a general review of all official records of the military occupation of North Head it was decided to focus the investigation towards the specific areas of public concern; the hidden underground structures, and the storage of ammunition. However because of various claims that archival collections are incomplete, or have been selectively purged, it was decided to try and conduct the research in a way that could reveal if alteration of records had occurred.

To this end it was also decided to establish a chronology of entries concerning all underground and excavated developments and of entries specifically recording the storage and handling of ordnance and ammunition. It was hoped that this chronology could reveal significant gaps in the sequence if they occurred and that the document could further reveal any underlying patterns of development on North Head.

1.3 Summary

An examination of the following chronology will reveal that there are only two main periods of major construction on North Head. The first period includes; the initial hurried fortifications of 1885, the re-working and consolidation in the 1890's and ends with the completion of the 12 pounder Battery in 1900. Although the main magazine and the Mk VII battery were built outside this period they were planned for much earlier, the abandoned Mk VII emplacement was begun in 1904.

The second major period of development extends from 1935 until the end of 1944 and includes; the construction of two search light emplacements, a Battery Observation Post, and a 4" gun emplacement as well as alterations to the existing engine room plus sundry barracks and workshops. Outside this period were the two well recorded searchlight emplacements constructed during 1915 & 16.

The general picture revealed by the research is that, outside the periods of development mentioned above, the intervening years were filled with military routine and general maintenance. At times even the maintenance became neglected

and North Head became run down, as occurred during the depression years of the late 1920's and early 1930's. This picture was repeated in the 1950's; the fort becoming gradually derelict as the army presence diminished before they finally left in 1964.

It would be hard to argue that the following chronology of North Head's development is complete and that every year and every construction is thoroughly referenced in official records. It is, however, equally certain that every official structure on the Head is referenced in time, if not in detail, within the country's archives. There are no excavated structures apart from Annies cave and the impromptu south battery excavations that do not appear somewhere on official records.

A full discussion of the archival research will be produced in a final report at the conclusion of the investigation.

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**2.0 CHRONOLOGY OF CONSTRUCTION AND EVENTS ON
NORTH HEAD 1885 TO 1975**

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YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1885	Work commenced North Head at three batteries, Fort Cautley 2 x 7" RML guns at summit 1 x 7" RML North Battery 64 pr at South Battery	Report on Defence Works of Auckland 1885 - 1895 NA WN AD Acc 29:5 N° 7	See full report description of timber lined emplacements and work sequence.	Fort Resolution Mt Victoria & Bastion Point begun Also Bastion Point
	At end of 1885 the gun pit for an 8" BL (Elswick) was begun with magazine and store room, also open galleries leading to the 7" RML gunpits at summit. All work initially done by unemployed labour and supervised by PWD. The men were dismissed and work stopped. Colonel Bodham took charge as Engineer of Defences with Mr A. Bell as resident engineer. Torpedo Boat arrived - "A Brick magazine for these guns was built in a central position behind the crest of the hill. This magazine is now the 8" Artillery Store". An open Gallery was excavated connecting the two 7" and 8" guns To get to the guns on entering the fort one turned to the left and passed through a cutting in the hillside entering the central passage at the point where it turns northward to the left hand 7" gun. On going down steps, the lower level of the 8" gun stores was reached. To get to the right hand 7" gun another flight of steps had to be mounted. Retaining walls bordered this passage, that in rear being of rough stone five feet thick.	Drg 1574 Drawer Is.. NZ Defences Auckland Harbour North Head at summit. Interior fittings signed A. Bell 3/10/85. A. Forder. Chronological History of North Head	Fort Record Book Chap 11 1885-1910	
18/3/85	Nth Battery. Construction of 7" RML gun pit and magazine. Drawings completed for magazines for 7" ML at North Battery & 64 pr at South battery	AK Weekly News 25 April 1885 Drg 1260 Drawer 15 18/3/85 NZ Defences AK Harbour Magazine for N° 1 & N° 4 Gun. Interior fittings etc DOC Library	Shows plan outline for similar magazine to serve the 64pr at South Battery. These magazines exist today at North & South Batteries	

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1885 contd	Covered way probably built at same time as original SL. Engine room and test room built on eastern slope. Minefield established across Rangitoto channel using 600lb ground mines from the Imperial stores Sydney. Observation hut placed on beach and the point for observation and cross intersection connected with telephones. Significant excavated trench with parapet constructed below and east of laboratory site with possible tunnel entrance formed just below road. Colonel Bodham's report to GS Whitmore: 7" & 64pr in place...timber magazines being constructed, roads tramways etc. Magazines completed... Due to changes in armaments & new forts, existing fort designs had to be abandoned. Bodham redesigned emplacements & magazines, where magazines not begun...; to be constructed in concrete & brick. Tunnels construction was revised with brick vaulting replaced with the much cheaper concrete slab & railway iron.	Drg 1573 N° 7 NZD Ak Harbour North Head Emplacement for 8" Gun at North Battery to replace 7", gun now mounted. Report on survey of Ak minefields. A. Bell 1892 NA WN AD 57/25 See Plate 1. Neg 3001 A.P.L. c. 1885 AJHR H-13-6 1885	It is not clear what power source was used to activate the mines and where it was located. See Fig. 1. showing engine room coalstore & tunnel associated with North Battery.	
1886	Armed Constabulary resume work on North Head fortifications under Defence Department control Ground mines not satisfactory - new work planned Government purchased 23 Nordenfeldt & Hotchkiss guns and 6" & 8" guns. 8" gun pit on summit completed as were magazines. Jetty built with tramway to summit. Under direction of Colonel Bodham. 8" gun and carriage were winched by steam engine to the summit. Minefield not satisfactory, new works planned,..expect generator & light equipment within the month	RDWA AJHR H-13-7 AJHR 1886/7 2nd Ref FRB Ch II AJHR 1886 H-13-17	Cutting for tramway to the summit is still visible.	Report on survey of Auckland minefield A. Bell 1892. N.A. WN 57/25.

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1887	8" gun mounted in summit emplacement. Three observing stations were built, one between the 8" gun and each 7" gun and the third on the top of the 7" magazine. They were reached by vertical iron laddering in rear. Colonel Bodham resigned & A. Bell took charge as Engineer of Defences at about this time.	FRB Ch II FRB Ch II	The two forward OP's were filled in during the 1891 remodelling	
1888	Prisoners from Mt Eden barracked at summit in adapted building excavated and built large concrete tank in barrack yard. Demolished 7" gunpit at North Battery (gun sent to Wellington) excavates sites for & built new gun pits, magazines, casemates store rooms & two observing stations for 8" guns in the north & south batteries. These guns were landed by boat & brought up incline as for the other summit gun. Mounted nine months later after concrete settled. Defence Report to Parliament: Ammunition Up to 100 rounds per gun ML in the colony	RDWA		
1889	Two 6pr QF Nordenfeldt guns on recoil mountings arrived and were mounted on each flank of summit battery. Reports progress in completion of Submarine Mining Depot and associated works. Study and preliminary preparations in progress for the position and laying of minefields in Auckland harbour. 8" guns not yet mounted.	FRB Ch II AJHR H-16 1888 Govt Printer	Originally only one gun arrived, was mounted on tramway to cover both flanks.	
1890/91	Remodelling of Fort Cautley begun: open passages were roofed with concrete and covered with earth, the steps which led from the lower to the upper level were removed and the floors graded to suit, new passages, casemates, magazines and store rooms were built and also retaining walls to connect with the two QF 6pr Nordenfeldts, their gun pits being at each wing. The entire system of ventilation was altered, the earthworks remodelled and the crest of the hill toned down to suit the alterations. The old entrance to the central passage was filled in, a passage cut out for each gun westward of the barracks. The two front observing stations were filled in. The depth of earth over the magazines is 12 ft, in some places more; that over the passages is less.	RDWA NA WN FRB Ch II		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1891	<p>The work in connection with building the emplacement for the electric light South Battery was commenced. This involved the demolition of the 64pr gunpit with its passages and approaches and joining them to the existing passages leading to 8" gunpit and 64pr magazine etc. The new position of the 64pr gunpit was lower down the hill and nearer the cliff than the old one so as to command the mine field. The other works were: excavating site for & building new room and passages for engine and dynamo, building two emplacements, one for QF gun/6pr on garrison recoil mountings and the other for electric light projector, excavating 6' shaft from this level to 20' above High Water Level with two passages with tramlines running to the face of the cliff, storerooms for projectors etc.</p> <p>Also at Fort Caultley, new foundations and loading chambers with partially new walls to the pits were put into 7" gunpits, the old timber foundations of pits and walls of loading chambers having become rotten and the walls of the pits cracked & broken. A new observing station was built and a telephone room, pipes laid and telephone communications made with the different batteries on the North Head. 12 feet of earth was established over the magazines at Fort Caultley. There were three emplacements for the light, one 64', the other 20' above HWOST*. The upper one was 71 yards distant from the engine room. Cables were conducted underground in cement channels to the top of the shaft. SL was mounted on trolley in tunnel and could be shone from either emplacement. The projector was lowered down the shaft fixed to the trolley. "One of two lower emplacements will be used for the light the other will be required for a QF gun."</p> <p>- Observing station. "There is no observing station and the defence of the friendly channel cannot be carried on without one."</p> <p>- Test room was not located at the yard at this time. Report recommended that it should be.</p> <p>- Priming pit recommended at the torpedo yard.</p>	<p>RDWA NA WN</p> <p>RDWA</p>	<p>The original position of the 64 pr emplacement has not been determined but was possibly the alcove of the passage to the present emplacement.</p> <p>This SL was to be used to illuminate the minefield in its final position</p>	<p>Remodelling of Fort Resolution was begun</p>

*High Water Ordinary Spring Tide

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1892	The third & final position for the minefield was proposed to be between North Head & Bastion rock.	Report on Survey of Auckland minefield 1892 AD 57/25 NA WN	This was a period of continuing works and many of works recorded during 1891 would have run on to 1892 work.	
1892	<p>Following recommendation by General Schaw a new casemate for the Electric Light installation has been built in connection with the work on the south battery over the past year. Eastern slope casemate housed boiler, engine and dynamo at this time, which powered the general search light for the approach water.</p> <p>Bell recommended retention of the plant in the Eastern casemate and additional plant previously destined for Harrington Point, Dunedin be installed at the new casemate at South Battery.</p> <p>- Table provides following information in <u>Submarine Mining Establishment</u> - original minefield test room is on casemate on eastern slope of N. Head.</p> <p>- Mine store and gun cotton pit and primer testing pit are at Bastion Point. Whitehead torpedo shed 60' x 90' includes secret room and machinery for maintaining and preparing torpedoes. Other buildings include general store, 60' & 16', workshops, fitting rooms, smiths shop, quarters.</p> <p>- Table provides following information on <u>Electric Light Installation</u></p> <p>Engine, boiler and dynamo at eastern slope casemate. Second casemate ready for plant at south battery. South Battery Casemate 36' x 16' x 10' high. Permanent emplacements for projector 65' & 90' above H.W. the latter in gallery in cliff reached by shaft.</p> <p>Recommendation that the search light associated with the Eastern casemate be retained there for artillery purposes.</p> <p>- An observation station for the ground mines, placed at the base of the cliff a little in advance of the Submarine Mining depot.</p> <p>N° 1 electric searchlight on east slope of the North Head with leads to adjoining casemate. N° 2 Electric Search light on south slope of North Head with leads to Casemate in South Battery</p> <p>- Report confirms role of shaft at SL emplacements as recorded in Report of Progress of work from 1885 to Oct 1895.</p>	<p>Electric Light at South Battery N. Head. A. Bell 1892 NA WN AD 57/25</p> <p>Report on Auckland & Wellington Minefields 1888-93 NA WN AD 57/25</p>	<p>This SL is recorded as having been trolley mounted & run along the covered way.</p> <p>This report is likely to have been written by A. Bell as it includes his recommendations re engine rooms on Nth Head etc</p>	<p>Author of this report cites the projector emplacements as being 65' & 90' above high water. It is not clear which sites are being referred to here. Bell cites 70' & McKenzie records 64' for the S Battery Projector site. This observation post would appear to predate station existing below South Battery</p>

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YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1892 contd	<p>Submarine mining depot consists of:</p> <ol style="list-style-type: none"> 1) General Store 60' x 16'. 2) Whitehead Torpedo store 60' x 20'. 3) Fitting shops. 4) Workshop 40' x 20'. 5) Office 12' x 10'. 6) Tanks, cable and water, outbuildings etc. 7) Yard and connecting up ground between above buildings. 8) Jetty and 2 ton whip crane. 9) Tramway, narrow gauge, in yard and along jetty. <p>The report also contains an appendix with 5 proposals to enlarge the Submarine Mining Depot.</p> <p>N° IV proposal calls for major tunnelling and linking of existing tunnel structures.</p> <p>Includes - gallery driven through cliff to observing station presently sited around the point from the depot</p> <ul style="list-style-type: none"> - jetty constructed at height of existing SL & QF gun emplacements - quarry out at above level, sufficient chambers for all the purposes of a mine store - Alternatively to above, drive an inclined subway from the low level galleries to the low ground near the officers quarters and there erect a bomb proof casemate or frame building for mine store with tramway communication throughout. <p>-Another proposal was reclamation</p> <ul style="list-style-type: none"> - New bombproof engine room and communications for the electric light completed. - Also completed, the new emplacement for the 64pr & emplacements for the QF gun and the electric light projector, musketry parapet & connections to the 8" battery. 	<p>Appendix C of above ref.</p> <p>No archival material has been found to show the military authorities reactions to the five proposals for extending the submarine depot.No other references have been found to suggest tunnels may have been excavated in the depot yard. (see 5/5/23)</p>		
1892	<p>"The whole of the extensive alterations and rearrangements at Fort Cautley have been completed, a heavy and complicated work but has been brought to a successful issue. The fort is now as effective as the embarrassing circumstances of its original construction would allow and is no longer in great proportion an untenable shell trap."</p> <p>- The damaged 8" 13 ton gun has been removed from the North Battery and has been taken down to the jetty. As the tramway has been removed this was a difficult and heavy job.</p> <p>- Proposed works for Submarine Depot</p> <ol style="list-style-type: none"> 1) Extension of area by reclamation 2) Abolition of Bastion Point subsidiary station etc concentration on NH Depot 3) Lengthening of jetty, new torpedo boat shed 	<p>Photo Neg ATL 44881/1 1896 Annual Report Harbour Defences A. Bell NA WN AD 66</p> <p>Ibid.</p> <p>Ibid.</p>		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1893	<p>Contains detailed schedule of forts including North Head. Includes descriptions of batteries, details of ordnance, magazines and state of development.</p> <p>- North Battery (North slope of North Head). BL gun and magazines built in deep excavations and hill slope thereafter restored largely to natural lines; no definite trace, left flank extended as musketry parapet total length 50 yards with gun banks for field guns to fire on Cheltenham Beach.</p> <p>- Fort Cawley (summit of North Head) Fortress generally. 8" gun in front centre, 7" on either side. Magazines between guns and 3 bomb proof casemates under back of front rampart: flank & gorge closed by musketry parapets without continuous ditches, wire entanglements being intended. No flanking fire. Wooden barracks and accessories for 60 men. The casemates and galleries (bomb proof) could take 50 men in war. Heavy guns are about 120' apart. Total length of parapet musketry about 200 yards.</p>	Report on the NZ Permanent & Volunteer Forces Lt Col Fox 1893. AJHR	Schedule also records each Battery Magazine as having 100 cartridges & projectiles for each 8" BL gun.	Schedule shows 8" gun on Mt Victoria was not mounted at this time.
1893	<p>- South Battery (South Slope of North Head) BL gun magazines etc & casemate for electric light in deep excavation and hill slope largely restored to natural lines no definite trace. 64pr with separate magazine is to right of BL gun and right flank from 64pr is extended to form musketry parapet, length 50 yards, on top of cliff with emplacements for QF gun and electric light projector. Covered by fire from Fort Cawley parapets.</p> <p>Mr A. Bell resigned this year. Control of defence reverted to PWD. Vickerman was resident engineer.</p>	RDWA 1885-95		Bastion Point Fort almost completed
1895	New concrete foundations were put into the 7" gun pits, also new concrete walls for the loading chambers because the old timber foundations of the pits and walls of the loading chambers had become rotten and the walls of the pits cracked and rotten.	<i>Ibid.</i>		
c.1895	Smith Shop constructed on western slope parallel with barracks.	A. Forder. Chronological History of North Head		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT																				
1896	<p>Telephone room built at Fort Cautley and communications established with the other batteries on North Head. Barbed wire fences running from Cautley to North and South Batteries were placed there as obstacles.</p> <p>British Admiralty Report on colonial coastal defences</p> <table> <tr><td>North Head</td><td>*HASL</td><td>8"</td><td>6"</td><td>7"</td></tr> <tr><td>Fort Cautley</td><td>192'-203'</td><td>1</td><td>-</td><td>64pr</td></tr> <tr><td>North Face</td><td>94'-101'</td><td>1</td><td>-</td><td>2</td></tr> <tr><td>South Face</td><td>121'-134'</td><td>-</td><td>-</td><td>1</td></tr> </table> <p>NB 64pr will ultimately be dismounted</p> <p>Mines: Three lines of mines between North Head and Bastion Point D</p> <p>Electric Light: there is an electric light apparatus (Victoria Brush D dynamo with test room casemates on North Head)</p> <p>- Photograph looking toward North Head from Torpedo Bay shows reclamation in progress. The bulk of the material clearly being excavated from the cliff.</p> <p>* Height above sea level</p>	North Head	*HASL	8"	6"	7"	Fort Cautley	192'-203'	1	-	64pr	North Face	94'-101'	1	-	2	South Face	121'-134'	-	-	1	<p>FRB Ch II</p> <p>British Colonies Precis of Existing & Proposed Coast Defence Revised 1896. Admiralty Intelligence Dept N° 463.</p> <p>Submarine mining depot. Neg. N° 44861/1 ATL 1896</p>		
North Head	*HASL	8"	6"	7"																				
Fort Cautley	192'-203'	1	-	64pr																				
North Face	94'-101'	1	-	2																				
South Face	121'-134'	-	-	1																				
1897	<p>The Report of the Engineer in Chief of the Public Works.</p> <p>The works in hand are in connection with the submarine mining depot at North Head.</p> <p>About half an acre of land has been reclaimed and the outside wall is being pitched with stones from the Bastion Mine Store and barracks under construction. Observation station also in progress. The works are being done by prisoners of whom an average of about 28 have been employed each day.</p>	<p>AJHR 1897 2nd source A. Forder</p>																						
1898	<p>Telephone station excavated in north traverse of summit earthwork. Telephonic communication by means of underground wires was established between Fort Cautley & Fort Takapuna.</p> <p>Defence report to Parliament</p> <ul style="list-style-type: none"> - construction of barracks at submarine mining depot - two concrete cable tanks - excavations for a tramway & for a miners store have been made. <p>The material excavated was used to reclaim land.</p> <ul style="list-style-type: none"> - a bomb proof observing station constructed with all the fittings. - test room built in the depot yard - a store for loaded mines is about half finished. - the emplacement for a new gun is in hand 	<p>FRB Ch II</p> <p>AJHR 1898 2nd source A. Forder</p>		<p>This is probably the 12pr battery.</p>																				

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1899	A barrack room was built about halfway down the western slope of North Head Reference made to getting up steam in the Electric Light Boiler & running one electric light at North Head.	FRB Ch II AD A 4.1 NA WN		
1900	Emplacements constructed for QF 12pr guns constructed by prison labour.	From notes compiled by W. Ruffel (not published)		
1901	2 x 12pr MK 1A 12 cwt guns arrive and are mounted on emplacements at North Head. Small cottage constructed in Quarry site.	Defence Scheme of NZ Part III. Auckland District Only. 1908 Photo Neg W1114 APL c. 1904		
1902	Army launch <i>Lady Roberts</i> arrives. Faults develop in telephone circuitry between Fort Victoria & Fort Cautley.	From notes compiled by A. Forder (not published) AD.A.3 W1849 N°5 NA WN		
1904	Summit guns B1 & D1 7" RML were dismounted	FRB Ch II <i>Ibid.</i>		
/04	Northern 6 pr Nordenfeldt was dismounted to make room for new emplacements for 6" MK VII gun. These excavations included the demolition of northern RML emplacement. - Work on these emplacements were discontinued as site not considered suitable. Excavation fill visible in vicinity above Engine room in vicinity of south battery. Laboratory building present but main magazine clearly not built.	<i>Ibid.</i> Winklemann Photo W1114 A.P.L. 1904 (Plate 2)		
21/6/04	Letter to minister of Defence re-siting of 6" Battery - Probable cost £1900/gun. Discussion of reasons for shifting. - 8" gun consistently inaccurate, change to cordite led to replacement of breech shield with a tie brace on Auckland guns. Experimentation with other types of charge.	Army file AD.115/13 NA WN Army File AD.1 57/82 NA WN		
1905 21/8/05 18/12/05	Two 6" MK VII guns arrived North Head Water supply to Fort Cautley not adequate	FRB Ch II DBC Minute Book		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1907	Main magazine constructed around this period. Excavations clearly visible in photograph. Good contextual information dates the magazine construction between 1904 & 1911. Minefield dismantled and the searchlight moved to the eastern extremity of the head.	<i>See Plate 3. Neg N° 3531/4 Price Collection ATL</i> North Head: A History HGMPBd	Compare with Winkelman Neg W1114 APL	
1908 19/2/08	New excavations underway for Mk VII emplacement (present site). 1908 Defence Scheme review records HQ for OC Harbour Defences at Mt Victoria Fort Caultley having the following guns three 8" BL H.P., two 12 pr QF & two 6pr QF.	FRB Ch II 1908 Defence Scheme of NZ Part III Auckland DOC		
1909	Prisoners excavating sites for 6" Mk VII QF guns and magazines	Alison Forder (Unpublished notes)	6" Mk VII guns were known as QF guns	
1910 /2/10	Visit by Lord Kitchener. Report to Sir Joseph Ward: .criticises the relocation of the 6" Mk V11 guns, felt they should be located at the summit, also recommends an additional 9.2" BL gun on North Head and a battery of 6" Mk V11 at Bartons Point. 6" Mk VII emplacement ready for guns to be mounted SL moved to temporary wooden shed on eastern shoreline	G14 159/10 NA WN FRB Ch II Takapuna Fort Record Book		
1911 20/6/11	New entrances cut in engine room for electric light	PWD NH BBAD 1054/2495 b NA AK <i>Ibid.</i>	South battery generator produced insufficient voltage to strike arc	
11/5/11	New gates for magazine and recommendations from Capt Nickel NZMF to DE PWD that main magazine should have vertical ventilating shafts established above each casemate and that the southern end should be opened the same way as the north in order that a current of air will pass through the magazine passage.			
1912 9/12/12	NZMF to DE PWD. Provision is to be made to accommodate 40 tons of coal (for steam engines in bunkers on the same level as the engine room). This will necessitate an additional space of 20' x 12' being built into the left hand side of the engine room.	PWD NH BBAD 1054/2495a		
7/10/12	Commander Defence 'P' Force Nickel to OC Artillery Three searchlights recommended for North Head, one pair to illuminate the inner harbour.	Army File AD 11.15/13 NA WN		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1913 15/1/13	Estimate for new BC & DRF station for Mk VII Battery: £100.	PWD NH BBAD 1054/2495		
23.1.13	Re: Searchlights at Forts Cawley & Takapuna: "present (Fort Cawley) engine room to be extended back 9 ft, holes to be cut for belting to dynamo ... provision to be made to accommodate the steam engine boiler & dynamo from Takapuna by extending present engine room 16' in width to full length of existing room including proposed extensions."		Proposal for 210' tunnel at Fort Takapuna to connect with engine room there.	
1914 14/12/14	Detailed estimate for installing two lights Fort Cawley included 1) Removal of present search light shed to new position with rail extension for running out light £60.00 2) Facing up cliff excavation for light room & forming approaches £25.00 to same. 3) Erection of light room front including all concrete & timber etc work in connection therewith £55.00 4) Cutting down cliff to gain clear vision of light & facing of same with concrete £5.00 5) Excavated trench for cable & jarrah casing including pitching 400 Yards @ 5/- yard 6) Facing up cliff and excavating for emplacement of secondary lighting 7) Erecting the above light room front including all concrete work, timber etc in connection therewith.	PWD NH BBAD 1054/2495 c NA AK	There is related discussion to tunnelling proposals in connection with Engine Room extensions at Fort Takapuna. Because of expense 210 yd tunnel put on hold 22/12/14	
1915 22/12/15	A searchlight ordered from England would comprise Projector instruments, engine, dynamo cables etc	Coast Defence AD 10 16/24 Coast Defence Auckland NA WN		See Entry 14/12/14. This is probably a reference to Fort Takapuna but needs to be established. Correspondence does not make it clear. Detailed estimate of work 14/12/14 at Fort Cawley does not refer to a tunnel, but short tunnels associated with SL's do exist on North Head.
1916 17/1/16	210 foot tunnel Fort Takapuna estimated £525: short tunnel and alteration of old searchlight emplacement estimated £187.00	Ibid.		
1917	Defence to Parliament: Harbour defences: ..clean & well cared for, guns ready for instant action, ammunition sufficient, engines dynamos & projectors all working	AJHR 1917 H-19-7	Same Ref. records trained gunners overseas & coastal batteries staffed by cadets & reserve officers.	

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1918 4/7/18	Auckland guns well sited and efficient but electric light at North Head is dependent on a steam engine and requires 2 hours notice before being available. Recommends one 6pr should be moved from Fort Cautley to Fort Bastion. North Head Cautley & Victoria had the following ordnance: Two 6" Mk VII:2-6 BL and two lights. 12pr QF guns being away on ships are not provided for. Repairs to defence wharf	Report on Coastal Defences of NZ by Lt Col Gardiner DSO RNZA AD 10 Secret Registry 16/16		
5/5/18	Auckland return 1918 8" 803 cartridges 600 shells 6" 923 cartridges (BL) 923 shells	PWD North Head Maintenance W.1 23/217 NA WN Ordnance & Ammunition Returns AD 10 14 /7 NA WN		
5/8/18	Memo C.D RNZA to Sir R.J. Walker G.S.O. AK District <i>Re Submarine mines & Magazines Devonport</i> a) The submarine mines at Devonport are absolutely harmless, the charges for them are all in the form of wet gun cotton and are stored under magazine conditions in stores on the southern side of North Head. Detonators retained for instructional purposes are also in stores on the south side of North Head. b) 1. Main magazine on the southern side of North Head -forty tons of explosive in the form of cordite & powder 2. Batteries on North Head (four) each having ammunition stores containing the equipment of ammunition for the guns.	Coastal Defence AD 10 (Secret Registry Confidential series) 14/4 NA WN		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1919	Defence Report to Parliament: GA stores practically complete. Large number of cordite charges destroyed owing to deterioration, can be replaced by stocks in hand.	AJHR 1919 H-19-18		
1920	Defence Report to Parliament: Forts harbour patrols, examination service, wireless & railways in Auckland: Expenditure £103,617	AJHR 1920 E-1		
1921 27/4/21	MK IV 15 prs BL to replace saluting battery North Head	Ordnance, obsolete. Disposal AD: 1 57/69 v2 NA WN		
21/7/21	Memo CSO from Director of Artillery, Accommodation will be found at Auckland for 2000 rounds 6" Naval ammunition			
1922 22/2/22	<p>Report by Brigadier General G.S.R. Richardson</p> <p>4) North Battery: The gun & mounting may be kept complete but all spare stores to be sold locally as magazine for storage of ammo. The gun is obsolete & will not be manned etc or part of Auckland Defence Scheme.</p> <p>5) a Fort Cautley: (One x 8" BL & one 6 pr QF) b South Battery: (One x 8" BL); Both batteries to be dealt with similarly to North Battery. Once caretaker or magazine keeper to be responsible for all magazines on North Head.</p> <p>6) Obsolete Ammunition: There is a large amount of obsolete ammunition for 8" BL guns and 6 pr QF guns. The powder cartridges are gradually being sold but it will take years to dispose of them at the present rate & the OC is urged to increase the sale if possible & to reduce the sale price if necessary. The corrugated cartridge case will probably be saleable for water tanks on small boats or for breaking up to use the brass fittings. The 8" Lyddite shells cannot be emptied. Their destruction is not an urgent matter, but the retention of obsolete shells filled with high explosive is undesirable and they should be destroyed as opportunity offers by the removal of the fuse hole plugs & throwing the shells into the sea outside the harbour limits. All other 8" shells & shot to be sold or otherwise disposed of & written off charge. All old 6" cordite other than MD cordite to be destroyed as laid down in the regulations.</p>	Coastal Defence Auckland AD 10 16/24 NA WN	8" BLH-P gun	

REF ID: A101624

OFFICIAL INFORMATION ACT

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1922 2/2/22 contd	7) Engine Room North Head: As soon as the Hornsby Ackroyd Oil Engines & El. equipment from Port Chalmers are installed here the steam engine & boiler should be sold in addition to any other obsolete equipment. 8) Submining Stores: The majority of these are entirely obsolete & useless for defence purposes. The OC has been instructed to dispose of them locally, harbour board, technical institute. The greater portion of the gun cotton to be sold if a purchaser can be found at 75% of its original cost. 9) Fort Victoria (see North Battery notes (4)). Fire Command Station should be used as a S.A.A. Magazine.			
1923 5/3/23	Captain C.S.O. Hamilton RN to Director of Artillery Reserve 6" ammunition for NZ ships is aboard HMS <i>Chatham</i> . Can it be stored at Mt Victoria or North Head? Require 1666 cubic feet of storage.	North Head & Mt Victoria Armament Storage 1921-33 N.I. 10/5/3		
5/5/23	Memo Gunnery Officer from HMS <i>Chatham</i> to CinC NZ - Describes visit to North Head to inspect storage facilities. He writes a very clear description of the 1890 search light emplacements & associated magazine. Describes need to secure searchlight emplacement & access passage before safe for use as magazine.	<i>Ibid.</i>	This memo shows that the Navy stored its ammunition in the tunnels of the old SL emplacement and not in the tunnels originating in the old submarine mining depot. It is worthwhile to note that by the mid 1920's the submarine mining depot had long been used for other purposes although as letters will show the name persisted. It is also important to note that the SL emplacement referred to was part of the minefield defences run from the old sub-mining depot in the late 19th and early 20th centuries.	
1924 11/11/24	Letter to Director of Artillery from Major Dandle RNZA Ref. to Richardson recommendation to locate Examination Battery at Fort Takapuna, mentions "two splendid searchlights below North Head serving the Mk VII guns as fighting lights corresponding to the arcs of the guns."	Coastal Defence AD 10 16/24 NA WN		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1924 contd 19/2/24	NZMF to DE PWD: "There is situated on the North Head an old underground engine room & barracks that it is possible might be converted into a magazine at a reasonable cost. The present magazine accommodation is insufficient for present requirements and in view of another large quantity of ammunition due to arrive in the near future it is thought that the building in question might be made suitable for storage of ammunition. Would an officer of your dept please prepare an estimate. Pack Cap Cmnd Dev."	PWD NH BBAD 1054/2489a NA AK	Ref. also states: earth cover to be removed to water proof roof, indicating that engine room is not excavated out of solid but cut in and earthed over.	
13/3/24	PWD to OC RNZA re-above Estimate £238 for above conversion. (SS <i>Mahia</i> due with ammunition 6/24)	PWD ND W.1.23/217 NA WN		
12/8/24	DE to permanent Head PWD Wellington. Work on magazines started, favourable weather... complete in six weeks.	PWD North Head BBAD 1054/2489b		
1925 26/3/25	Repair to Main magazine £35 requested by PWD from NZMF for new roof ventilation cowl.	<i>Ibid.</i>		
1925 26/3/25	Letter to CSO N.O. from Director of Artillery: Northern Military District reports that the following magazine accommodation is still occupied by Naval ammunition. North Battery: The whole magazine South Battery: One long passage & one magazine Fort Cautley: Three small magazines Submarine Mining Tunnel: One long passage letter from Naval secretary to Director of Artillery C.O. HMS <i>Philomel</i> states as follows: a) North Battery & South Battery: The shell in the North Battery is being moved to Mt Victoria. Owing to the lack of room in the magazines this shell is being stored in the fire control position to which a road has recently been made. The cordite in North Battery which occupies three small magazines & all the ammunition in South Battery is to be returned to England. b) Fort Cautley: The three magazines at Fort Cautley were cleared in August last. Two of them & Military ammunition is stowed in the other. c) Submining Tunnel: The passage in the submining tunnel will be cleared shortly.	North Head & Mt Victoria Armament N.I. 105/3	The individual magazine volumes quoted in associated correspondence is confirmed by volumes derived from original drawings. For explanation of submining tunnel see 5/5/23 Subsequent discussion describes security of ammunition storage at Mt Victoria and storage facilities at Ngaruawahaia.	

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1926 2/8/26	Summary of Naval ammunition storage options on North Head reveals that the old boiler house (Eastern engine room) was to be used. It is clear that accommodation is very limited.	North Head & Mt Victoria Armament Base N.I. 10/5/3 NA WN Magazines: Takapuna N.I. 10/5/2 NA WN	The obvious limitations of magazine storage on North Head is made clear in this letter and related correspondence.	
11/8/26	Letter from Squadron Gunnery Officer to Commodore: Fort Takapuna obsolete, one gun dismounted the other in place ... suggest gun pits be roofed over like Fort Ballance & the whole Fort form one naval magazine.		The development of Fort Takapuna as a naval magazine is a direct response to the storage shortfall in the area.	
13/10/26	Minister of Defence to Town Clerk DBC. Naval ammunition still stored at Mt Victoria and North Head.	DBC minute book 1925-27		
1927 27/7/27	Roof to main magazine leaking again around ventilator shafts. Privets planted around parade ground	PWD NH BBAD 1054/2489c NA AK <i>Ibid.</i>		
10/27	DC expresses dissatisfaction with reply from Minister of Defence re storage of ammunition at North Head & Mt Victoria.	DBC Minute Book 1927		
12/5/27	Report on Magazines Takapuna including schedule of all forms of explosives stored there. The smoke floats are still stored at North Head in submining tunnel.	Magazine Takapuna N.I. 10/5/2 NA WN		
27/8/27	Magazines at Mt Victoria empty (ammo. probably moved to newly converted Magazine at Takapuna.)	North Head Mt Victoria Armament Storage N.I. 10/5/3 NA WN NA WN		
26/10/27				
1928 31/1/28	Statement from the Navy Secretary:... The department has no further interest in the matter of the cottage or Fort Victoria.	Magazine: Takapuna N.I. 10/5/2 NA WN		
14/4/28	Drawing A.D.O. 9744 - Official drawing of Naval magazine at Takapuna, produced by PWD at the request of NZMF.	PWD North Head Maintenance BBAD 1054/2489c NA AK		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1929	Correspondence in several files concerning development of the Naval magazines at Takapuna.	PWD NH BBAD 1054/2496b		
6/2/29	Memo from Naval Secretary to various military personnel re naval magazine at Takapuna: include a history of storage of Naval ammunition at Devonport ... "the ammunition was stored at the time in the galleries and other chambers underneath the various disused forts on the north side of Auckland Harbour.	NA AK Magazine Takapuna N.1. 10/5/3 NA WN		
6/8/29	The PWD idea of solving the persistent leaks in the North Head Engine Room with a corrugated iron ceiling is withdrawn. The roof of the engine room has 2'6" concrete and 4 to 5' of earth on top. Solving leaks is difficult.	PWD NH BBAD 1054/2490b NA AK PWD Maintenance North Head W.1 23/217 NA WN	Earlier correspondence on leaks referred to an idea of establishing an independent corrugated iron roof within the Engine room.	
28/9/29				
1930 6/8/30	Dvt Deputy Mayor Hislop, statement to Prime Minister Forbes, DBC would rather the naval ammunition was stored at North Head than in Fort Takapuna. Prime Minister Forbes responded: "The idea that North Head has ample ammunition storage facility is farcical...the naval department abandoned North Head as unsuitable".	North Head Defence Reserve 203/8/vi NA WN	This statement is supported by correspondence in N.1 10/5/3 & N.1 10/5/2.	
1932	Report to Parliament on defence works, from OC NZMF Generally in fair condition...Only urgent repairs have been carried out during the year. This means normal maintenance work is accumulating.	AJHR 1932 H-19-5	due to world wide recession	
1933 30/5/33	NZ Defence Force to DE PWD: ... require estimate for the bricking up of the doorway connecting N°'s 1 & 2 engine rooms North Head.	PWD North Head BBAD 1054/2490b NA AK		
1933 3/8/33	NMD to HQ Issue, rehandling and return of ordnance. There is 10,899 lb of old submining cotton on charges ... in assorted slabs, "requires dumping".	Issue, rehandling & return of Ordnance 206/30/3 NA WN	See 26/2/22 Richardson recommendation re disposal of gun cotton.	
1934	Normal maintenance items, drains, repairs, etc recorded	PWD Files		
1935	Plans for modernising Coastal Defences are so far advanced that it is hoped they will be completed by 1936	AJHR 1935 H-1		
10/12/35	Alterations - defence electric light, engine room and emplacements North Head: Authorisation.	DWC&MP 203/1/1 VII NA WN	These alterations are not specified probably refer to raising the roof of the engine room. The electric light referred to was searchlight N° 1.	

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1936 28/9/36 /12/36	Proposal to alter engine room and construct DEL emplacement and direction position station. Proposed works for North Head includes three searchlight emplacements and twin 6 pr QF AMTB.	DWC&MP 203/1/1 VII NA WN Coastal Defence Modernisation AD11 11/14/1 NA WN	These works were related to harbour security as an adjunct to the examination service established at Takapuna.	
1937	Summary Defence measures North Head 1937 - Searchlight emplacement under construction with two more planned - 2 x 6" guns, two x 12 pr QF guns as existing and proposes twin 6 pr Estimates include: 1 twin 6 pr £5000 Ammunition for above £1000 2 x HCD 90 Searchlights £1000 Cables and telephone £500 2 x SL emplacements £800 Alteration to engine room £800 Engines £1800	Coastal Defence AD 11 5/6 Secret/ Register NA WN	Searchlights referred to are N°s 2 & 3	AJHR 1937 H-194

Coast defences:
Works at new batteries at Auckland and Wellington sanctioned under the 1933 expansion programme to be ready by July. The installation of armaments will then proceed.

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1937 contd	<p>Building Coordination Schedule 1937 -File entry: Magazine in steel and concrete to be constructed between June 39/December 39 for £10,000</p> <ul style="list-style-type: none"> - Degree of urgency: magazines in use becoming fully stocked and large orders for further supplies have been placed making provisions for further magazine accommodation during 1938 an urgent matter. - Entries for North Head include: construction of BOP to be finished 1937 Emplacements NH and Takapuna to be finished 1937 Buildings at Artillery Yard to be finished at early date £80,000 spent at North Head 1937/8/ 	DWC&MP 203/1/1 vii	A number of magazines were constructed at different locations around the country at this time including Ngaruawahia. No reference was found for any being built at North Head	
1/4/37	Letter from NZMF WN to DE PWD AK request for estimate for construction of BOP	PWD HD BBAD 1054/2490d NA AK		
17/5/37	Letter from NZMF WN to DE PWD AK request for survey information to locate position for new depression position finder to be installed on North Head.	Ibid.		
7/6/37	Letter from NZMF WN to DE PWD AK survey information required for new BOP for Mk VII battery	Ibid.		
1938 7/2/38	Letter from NZMF to CE PWD. Latest topographical information dates from 1880's need to update, intend to prepare a 50' 1" map for current and future works. Please prepare maps. Estimate required.	PWD NH BBAD 1054/2490c NA AK		
8/4/38	Notes from a Major Edney visit to DE PWD includes additional work to be done at North Head. a) raising of other half of engine room roof (old dynamo room) b) the construction of two further searchlight emplacements c) the construction of a twin 6 pr emplacement	PWD NH BBAD 1054/2176b NA AK	This is the old dynamo room the roof of which was apparently not altered in 1935/6 when the engine room roof was raised and waterproofed.	

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1938 contd 9/5/38	Two further aerial prints required, one for PWD. HO and one for Army H.Q. Cabinet approval for engine room alterations and construction of 2 new searchlight emplacements and BOP	PWD NH BBAD 1054/2490c NA AK <i>Ibid.</i>	This was part of the mapping project which produced the F&W Map 1104. North Head: Site Plan buildings, contours etc 1946	
12/7/38	Proposal to extend Annies Cave to road above 12 pr battery was declined due to amount of labour involved.		<i>Ibid.</i>	
27/9/38				
/ 38	Defence work carried out by PWD at North Head included DEL Station & BOP.	DWC&MP 203/1/1 v2 NA WN Notes compiled W. Ruffel Unpublished		
/ 38	110v Ruston Hornby generators installed Defence Report to Parliament; Plans prepared for ordnance depots at Ngarnuawahia & Burnham & for rebuilding ordnance workshop at Devonport	AJHR 1938 H-19-4		
1939	Expenditure estimates allow for extensions of ordnance workshops.	DWC&MP 203/1/1 v2 contd NA WN Fortifications North Head 203/10/7 NA WN PWD NH BBAD 1054/2490c. NA AK		
1/2/39	Excavation begun on two new searchlight emplacements. Reconcreting of floors of searchlights 4 & 5 carried out.	DWC&MP 203/1/1 v2 NA WN Note compiled W. Ruffel		
14/2/39	Request from Army secretary HO to DE PWD for survey information coordinator for a proposed emplacement	Works North Head File W.I. 23/74 pt 3 NA WN		
8/5/39	Cabinet approves £500 for gun shelters for 6" Mk VII guns (includes drawing & outline specification) 18 pr Field gun mounted above Cheltenham Beach			
7/12/39	Estimate master gunners store £2030. Minor works on North Head include tennis court £200. Enlarging 12 pr directing station £120, sealing engine room roof £188, steel shutters fitted to searchlights 4 & 5			

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1940 2/2/40	North Head Defence 6" Battery SL & BOP Guns Shelters Engine Room Pathway Drill hall Trees at 6" gun Store Freight Holiday pay	PWD NH BBAD 1054/2490c NA AK		
/10/40	18 pr guns on beach platforms replaced by 4 x 6 pr Hotchkiss guns. References to need to ventilate war shelters and night OPs Emplacements for four x 6 prs and SL emplacements Discussion of new 6" emplacement North Head. PWD total expend works 1939/40 North Head £31,374	FRB PWD NH BBAD 1054/2245b NA AK PWD NH W.1 23/74/pC3 NA WN PWD NH 1054/2245b NA AK	This emplacement did not eventuate & 4" Mk V11 guns from Takapuna were used.	
30/10/40		FRB PWD NH BBAD 1054/2245b NA AK		
18/11/40		FRB PWD NH W.1 23/74/pC3 NA WN PWD NH 1054/2245b NA AK		
21/11/40		FRB PWD NH BBAD 1054/2245b NA AK		
1941 6/2/41	Notification by NZMFF that the removal of 4" Naval guns from Narrow Neck to North Head is to be completed before 6" guns are moved to Whangaparaoa Head. 15th AA Regiment stationed on North Head with one AA LMG at the South Battery. Tender accepted for construction of 4" gun emplacement at North Head. NZMFF to DE PWD request to convert old 6" BOP in FCP & build new OP for 4" guns.	FRB PWD NH BBAD 1054/2245b NA AK FRB PWD NH BBAD 1054/2245 NA AK Ibid.		
9/5/41				

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1941 contd 1/7/41	NZMF to DE PWD Estimate requested for converting 8" gun pit into war shelter plans to follow£210	PWD ND W.1 23/74 pt3 NA WN		
21/8/41	6" MK VII taken to Whangaparaoa by this date. The former BOP is now the Night FCP. The 4" battery has its own BOP with DRF & SLDS. The South Battery OP is also a SLDS. The former Night BOP now works as SL Telephone exchange.	FRB		
14/9/41 21/10/41	4" Mk V11 guns emplaced Sergeants mess work & war shelter, expense overrun.	FRB P.47 DW&MP 203/1/1 v3 NA WN		
/10/41	NMD Fortification Appendix GP11 Master gunner store: Store accommodation for master gunners store and spare parts held at North Head for the various batteries controlled by the 9th Heavy regiment is totally inadequate. Underground tunnels in both north & south batteries are at present used as store rooms but the practice is a bad one and it is not possible to keep property and constant check on these valuable & essential stores. A total of 1500 sq ft is required. The PWD estimate is Building £1225 excavation £25.	Ibid.	It appears that there is not sufficient storage accommodation on the Head at this time.	
12/12/41	NMD Appendix AP 16: £1093 approved to convert drill hall into ordnance workshops. Overrun £133	Ibid.		
1942 17/2/42	NZMF to DE PWD overhead cover for 4" guns. Put in hand.	PWD NH BBAD 1054/2254b NA AK		
/4/42	Memo from QMG: AA works, two Bofors allocated to North Head.	PWD NH 203/1/1 v4 NA WN		
22/6/42	Extensions to ordnance Workshop ADO 19037	PWD NH W.1 23/74 NA WN		
31/7/42	NZMF to DE PWD. Proposed new searchlight & engine shed.	PWD NH BBAD 1054/2245b NA WN		
1/9/42	Cost on new searchlight emplacement at N. Head include: excavation for emplacement 40 cubic yards & for tunnel 30 cubic yards.	PWD NH 203/1/1 v5 NA AK		
1943 10/2/43	Searchlight now to be mounted on a concrete slab in a timber shed standing in open so as to avoid excavation ADO 19227	PWD NH BBAD 1054/2245b NA AK	This is searchlight 4A on Map F&W Map 1104 1946	
14/9/43 / 43	Timber framed searchlight directing station North Head Machine gun emplacement built on Cheltenham beach at the foot of North Head. Sited by Colonel Newham.	PWD NH W.1 23/74 pt 3 NA WN North Head: A History HGMPBd p 43		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1944 / 44	North Head expenditure 1943/44 £3146 Work continues on the 4A searchlight	DWC&MP 203/1/1 v10 NA WN		
1945	Memo on Fort Ballance clearance records 16pr moved to North Head for storage.	Mob & Demob Coastal Defences 271/22/11 NA WN		
1947	Schedule of Coastal Artillery Sites. Auckland Region lists sites armaments equipment & remarks. The following equipment was listed as being stored at North Head	Coastal Defences AD W 1449 NA WN	A.F.W Powrie (9th Coastal Master Gunner) at North Head in the late 1950's reports large quantities of similar machinery stored in buildings in artillery yard. Also see 1945, 16 pr from Fort Ballance	
	<u>SITE</u>			
	North Head	1 x 64pr 4 x 6 pr 1 x SL engines 1 x 6 pr twin 1 x HCD SL & engine SL switches, (motor directing) SL's		
	Motutapu	HCD SL's & engines		
	Bastion Point	3 x F.C. instruments 1 x switches (motor directing Mk V) F.C. Instruments SL's & engines Switches, (motor directing) DRF		
	Takapuna	Emplacement remains		
	Castor Bay	F.C Instruments		
	Whangaparaoa			
	Bay of Islands			
	Waitata Pt			
	Waiheke			
	Tiririki Matangi			
	Whangarei Heads			
7/3/47	Reconstruction of army wharf	DWC&MP 203/1/1 v 13 NA WN		
1948 15/2/48	1947/48 £2900 spent on North Head Army wharf cost £6167	Ibid. DWC&MP 203/1/1 v 14 NA WN DBC Minute Book		
3/11/48	DBC to Min Defence. Is there ammunition stored on the head? Dr Finlay MP responded by explaining the matter was confidential.			
1949 26/11/49	DBC to Min Defence. Council considers it desirable to shift ammunition off the head and out of the Borough	DBC Minute Book 1948-50		
1950 No date	Re siting of AMTB Battery as part of state subsidised work programme	DWC&MP 203/1/1 v15 NA WN		

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YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1951 C/1951/2	6" Mk VII guns bought back from Whangaparaoa with ammunition	Pers. Comm. A.F.W. Powrie. 1992		
1953	Summit magazines emptied in preparation for seaward Defence HQ's construction	Pers. Comm. R. Goldsworthy, Dvpt 1992		
10/6/53	Improvements made to lighting in North Head magazines Maintenance North Head & Artillery Yard in 1955/56 cost £5000	DWC&MP 203/1/1v17 NAWN		
1953	8" BLH-P gun moved from Summit Battery to South Battery	Pers. Comm. R. Goldsworthy, Dvpt 1992		
27/10/53	Proposal to convert summit emplacement and three magazines into a seaward Defence Headquarters	PWD NH BBAD 1054/2245		
	4" guns removed by this time	Pers. Comm. R. Goldsworthy		
1955 23/2/55	DBC approaches government to see if North Head can be made available to public on certain occasions.	DBC 1954/56 Minute Book		
1956/7	6" Mk VII guns were dismounted. Magazines were emptied by hand over several days. Ammunition was loaded on to ASC trucks and transported probably to Ardmore. The guns were sold for scrap.	Pers. Comm. A.F.W. Powrie 1992		
1957 28/8/57	Army Board orders discontinuation of 9th/10th/11th coastal regiments: details procedures for personnel transfers and accounting of stores. Detailed orders for disposal of ordnance to follow but the following guns were declared redundant. 4" naval guns, 6" Mk VII and 9.2" guns. Later model 6" guns were to be retained.	Brigadier Birch (Private Collection) Karori Wellington 92		
25/9/57	Mk V11 6" guns were dismounted and sold for scrap	Pers. Comm. A.F.W. Powrie 1992 1956-58 Minute Book		
	DBC Mayor drew attention to evacuation of North Head by 9th Coastal Battery and suggested government should remove all buildings and that North Head should revert to a reserve.			

THE OFFICIAL HISTORY OF THE NEW ZEALAND COASTAL DEFENCE FORCES

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1958	MK VII magazines stripped of all timber and left empty. Main magazine emptied of all remaining shells including some sub calibre 6" ammunition. All other magazines were also emptied of any remaining ammunition by this time. Defence report. Ammunition. Disposal of unserviceable and dangerous ammunition has continued at Makomako Waiouru and Belmont. 317,440 items of ammunition from detonators to 9.2 cartridges, 240,983 lb explosives were dumped at sea. "I am able to report that Makomako is now clear of dangerous ammunition.	Pers. Comm. R. Goldsworthy 1992 Pers. Comm. A.F.W. Powrie 1992 AJHR H19 1959	No entries were found in Defence Library re evacuation of 9th coastal regiment from North Head or ammunition clearance.	
1959	All records including training manuals, record books were packed in 5 cases and sent to NMD Army HQ.	Pers. Comm. Major R. Nuttford 1992	Castor Bay 6" guns were also sold at this time.	
1960	900 tons of obsolete ammunition dumped at sea, while over 130,000 rounds of artillery ammunition that was to dangerous to dispose of in this way has been destroyed by detonation or burning.	AJHR H-19 1960		
1962	Five 90 cm HCD searchlights were stored in main magazine during this period. Other equipment on the Head at this time were four 3.7" mobile guns and four 150 cm searchlights with Lister generators. The Ruston Hornby engines and generators were still operational at this time.	Pers. Comm. W. Ruffel 1992		
1964	All remaining army equipment as listed in 1962 was sent to Sylvia Park Army Stores. The Ruston Hornby engines were sold for scrap.	<i>Ibid.</i>		
1970 /8/70	HGMP Board sought to acquire existing army house on Head.	HGMPPBd NP43 Vol II DOC		

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1971 5/4/71	Report for Planning & Policy Committee: North Head: Proposed Action. Remove all broken down fences, unused telegraph poles, dilapidated buildings, some tunnels are suitable for the public to explore, some need to be sealed up.	HGMPPBd NP43 Vol II DOC	HGMPPBd Staff refer to the fabrication of steel gates and not sealing tunnels with masonry (see comment 1975)	
11/5/71	Report on visit traversed track around waters edge and came to the tunnel by the Artillery Yard which is closed off and which came out in the garden that the Board hoped to get possession of.	Minutes of the Meeting of the HGMPPBd DOC	The location of the tunnel in the garden confirms numerous stories of soldiers sneaking down the tunnel in the garden of Jubilee Avenue to avoid the long route down the N.E steps. This tunnel is the existing tunnel to the old searchlight emplacement. It is shown in early HGMPPBd map of North Head as exiting in the adjacent Jubilee Road garden.	
1972 12/72	DBC relinquished lease of North Head control and administration passed to Hauraki Gulf Maritime Park Board. The control of the summit area remained with the navy.	HGMPPBd NP43 Vol II DOC		
1973 15/2/73	Pat Gundry, Editor of <i>North Shore Times Advertiser</i> lowered into a hole, somewhere in the vicinity of North Battery. Carolyn Howden also in the photograph, assisted by Naval personnel with torches made her way into the gun pit which was full of earth and rubble at the time.	NSTA Feb 15 1973 p 53 Pers. Comm. C. Howden	It appears that the hole in the ground visible in the photograph is likely to have been the O.P behind the south battery.	
1975 /9/75	Report for Planning & Policy Committee Nth Hd Assess cost of closing tunnels Arrange finance for closing tunnels with screen wall type concrete blocks. Assess cost of constructing steel gates for tunnels & fortifications Development work: restore tunnels & fortifications. - Close to old workshops and approximately 20 m back from first hairpin bend in summit road, HGMPPBd staff filled in an existing hole that already had barbed wire and corrugated iron in it.	North Head Working Plan HGMPPBd Development Schedule (Preliminary documents) DOC Pers. Comm. W. Saunders (then Chief Ranger HGMPPBd)	The completed document does not refer to closing tunnels. Pers. Comm. B. Lang (was involved in the preparation of the document) referred to the general intention to open North Head up to the public & does not re-call any tunnels sealed. The 1975 Working Plan for North Head calls for the construction of steel gates & does not refer to permanently sealing tunnels.	REDACTED

YEAR	CONSTRUCTION/EVENT	REFERENCE	COMMENT	PARALLEL EVENT
1979	Main carpark on western slopes planned showing original existing contours, cut and filled.	HGMPPBd North Head material DOC		

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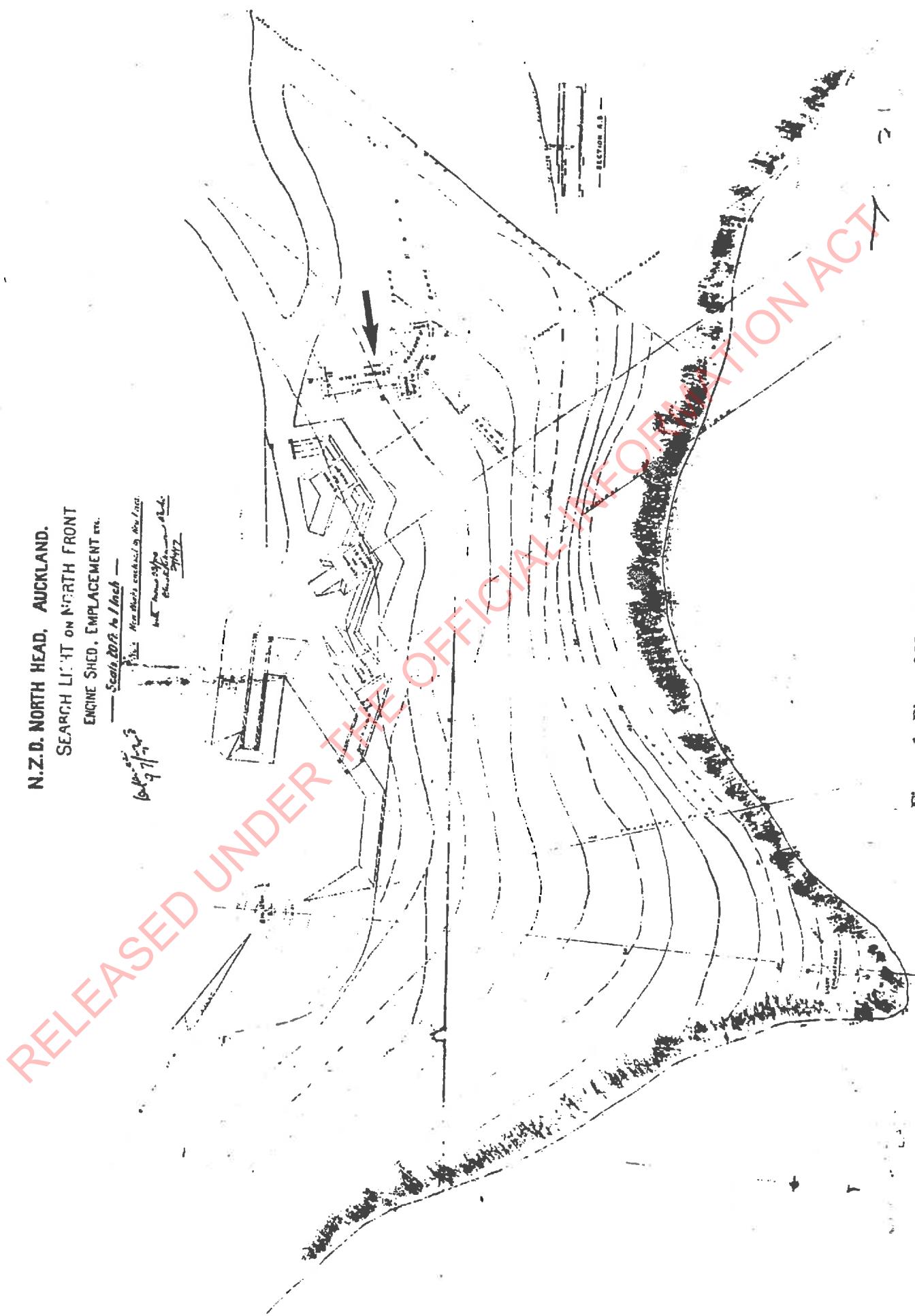


Figure 1. Plan of North Battery showing Engine Room (circa 1885). D.O.C. Archives



Plate 1. Excavation in vicinity of laboratory site (*circa* 1885). Reproduced by permission of Auckland Public Library. Neg 3001



Plate 2. Excavation in progress near South Battery entrance (*circa* 1904). Reproduced by permission of Auckland Public Library. Neg W1114.



Plate 3 Excavation for Main Magazine (*circa* 1910). Reproduced by permission of the Alexander Turnbull Library, W.A. Price collection Neg G353½

3.0 APPENDICES

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APPENDIX 1

LIST OF GENERAL ABBREVIATIONS

AA	Anti-Aircraft
AMTB	Anti-Motor Torpedo Boat
ASC	Army Service Corps
BL	Breech Loading
BOP	Battery Observation Post
CE	Chief Engineer
CinCNZ	Commander in Chief New Zealand
DE	District Engineer
DEL	Defence Electric Light
DBC	Devonport Borough Council
DRF	Direction Range Finder
EO	Elswick Ordnance Co - Manufacturers of the 8" H-P guns
FCP	Fire Control Post
GA	Garrison Artillery
HCD	High Current Density
HGMPBd	Hauraki Gulf Maritime Park Board
H-P	Hydro-Pneumatic - The disappearing gun mechanism
HQ	Head Quarters
LMG	Light Machine Gun
NMD	Northern Military District
NZMF	New Zealand Military Forces
OC (or CO)	Officer Commanding
pr	pounder
PWD	Public Works Department
QF	Quick-firing
QMG	Quarter-Master General
RML	Rifle Muzzle-loading
RNZA	Royal New Zealand Artillery
SAA	Small Arms Ammunition
SL	Search Light
SLDS	Searchlight Direction Station

APPENDIX 2

LIST OF REFERENCE ABBREVIATIONS

AIM	Auckland Institute Museum
AJHR	Appendices to the Journal of House of Representatives
APL	Auckland Public Library
ATL	Alexander Turnbull Library
DOC	Department of Conservation
DWC&MP	Defence Works: Construction and Maintenance Programme Works
FRB	Fort Record Book
HGMPBd	Hauraki Gulf Maritime Park Board
NA AK	National Archives Auckland
NA WN	National Archives Wellington
NSTA	<i>North Shore Times Advertiser</i>
Pers. Comm.	Personal Communication
RWDA	Report on Defence Works of Auckland 1885-1895

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APPENDIX 3

MATERIAL SURVEYED

National Archives Wellington - Army Files

Archival Reference

- AD1 203/1/1 v1-17 Defence works: Construction & Maintenance Programme Works
AD1 203/10/7 Fortifications North Head
AD1 203/173/2 Survey of Magazine Security
AD1 203/47/1 General Buildings
AD1 205/8/v Defence Reserve North Head
AD1 206/1/34 v2 Ammunition Unexploded Handling
AD1 206/1/34 v2 Issue & Instruction re-handling & Return of Ordnance
AD1 205/1/5 Rifle Ranges
AD1 271/22/11 Mobilisation and Demolition Coastal Defence NZ
AD1 244/2/43 Ammunition Inspection (stationary)
AD1 63/9/9 v1 Routine Orders Lists & Gazettes
AD W1449 65/18/3 Ammunition Storage
AD1 77/3/11 Administration Fort Cautley
AD1 1885/1302 Defence Work Cautley
AD1 57/82 8" BL EO Co general File
AD 1 57/69 Ordnance Obsolete Disposal
AD 3/282 Army File
AD 3/282/4 North Head Buildings
AD 6/184 Estimation Arsenal in NZ
AD 57/25 Report on Survey of Auckland Minefield 1888
AD 57/25 Electric Light at South Battery North Head 1892
AD 811/4 Defence Engineers Wellington
AD 62/1 Early unsorted Defence papers
- AD 10 14/4 Armament Auckland Coast
AD 10 14/6 Armament & Ammunition Navy
AD 10 14/7 Ordnance & Ammunition returns
AD 10 16/1 Coast Defence: Report on Efficiency
AD 10 /24 Coast Defence Auckland
- AD 11 5/13 Coast Defences
AD 11 5/5/3 AMTB Defences
AD 11 5/19 Coast Defence Auckland
AD 11 Coast Defence Modernising
AD 11 11/14/1 Coast Defence Modernising
AD 11 MO5 Secret Registry Coast Defence Modernisation
AD 11 (Secret Registry) 5/13 Coast Defence Scheme Northern District
AD 11 (Secret Registry) MO 5/13 Coast Defence Northern District
AD 11 (Secret Registry) 5/5/3 Anti submarine Defence
AD 11 (Secret Registry) 5/6 Coastal Defence
- AD 12 (Unnumbered files)
AD 12 25/1/12 9.2 Batteries NMD
AD 12 25/6 9.2 Batteries General
AD 12 25/32 Review of Coastal and AA Defence
AD 12 25/39 Coastal Defence
- AD 19 68/16 Report Auckland District
AD 19 68/693 Royal Artillery Committee Report
- AD 33 Submarine Mining 1,3,4,5&8
- AD 62.1 Early Defence Papers Drawings & specifications
- Series 66 Plans of NZ military Installations & Coastal Defence
AD 66z 1 Mt Victoria 8" Gun pit, magazine and ammunition lift
AD 66z 5&6 Wharf at Submarine Mining Depot
AD 66z 1
AD 66z 8 Harrington engine and Dynamo Room

AD 66z 31 North Head engine room (missing)
AD 66 1362/1-2 Submarine Mining depot

AD 66 F & W Plans & Maps 1939
(Map 1 104 North Head not listed)

RNZA Maps & Plans
AD 2/5/3 1-52 AD 2/5/3 No's 1-52

Fort Record Books

AD 88 10 Mt Victoria
AD 88 10 Takapuna
AD 88 10 Castor Bay
AD 88 10 Waiheke
AD 88 10 Whangaparaoa
AD 88 10 Motutapu

AD-A 1449.1 Record Book for Torpedo Station Devonport
AD-A 1449.2 Army letter Book 1891
AD-A 1449.3 Army letter Book
AD-A 1449.4 RNZA Detachment
AD-A 1449.6 Diary of Auckland Militia
AD-A 1449 Drg No 4022 Fort Cautley 6" Battery 1908
AD-A 1449 Drg No AD 1730 Coast Defence Auckland
AD-A 1449 Drg No 15322 Whangaparaoa Battery Arrangements (Magazine & Shell Store Details)
AD-A 1449 Drg No 15319 Searchlight emplacement North Head
AD-A 1449 Dr No ADO 17240 North Head Military Camp Layout Plan
AD-A 1449 Drg No 15352 Motutapu cabling
AD-A 1449 Drg No 15313 Examination Service
AD-A 1449 Schedule Coastal Artillery Site Auckland Region
AD 1449 V14 Coastal Fortifications:

Drawing Folders 1-8 (Contents include: Whangaparaoa, Waiheke, Castor Bay, Motuora, Wrights Hill, Russell.

AD S 6/4 Army File
F&W 1/1/26 Coastal Defences
AD S 13/4/1 NMD Home Defence Plan
AD S 44/8/4 Examination Service Auckland
AD S 25/1/8 Anti-aircraft Defences Auckland

AD 2518 ADA 63/9/6 Gazettes & Lists
AD 2518 AD-A 63/9/6 Lists & Gazettes
AD 2518 AD-A 77/3/1 Explosives & Demolition
AD 1 Box 1432 File 2
AD 1 Box 1460 File 20
AD 1 2nd seq Box 1403
AD 1 2nd seq Box 147
AD 1 2nd seq Box 145
AD 1 2nd seq Box 141
AD 1 2nd seq Box 175
AD 1 2nd seq Box 16
AD 1 2nd seq D35/16
AD 1 2nd seq D35/15

AD 2333 7/6/4 Coastal Defences Auckland
AD 2333 1/1/26 Forts: General 9.2 guns
AD 2333 7/6/5 Examination Service
AD 2333 1/4/4 Forts: Anti-torpedo boat armament
AD 2935.1 Correspondence
AD 2935.2 Instructions drill firing targets
AD 2935.3 Instructions drill firing targets
AD 2935.4 Machine Gun maintenance Instructions
AD 2935.5 Memo - roll information, general orders
AD 2935.7 Report of progress Defence Works Auckland from 1885-95

NAVY FILES

N 1 10/5/2 Magazines Takapuna
N 1 10/5/3 North Head & Fort Victoria 1921-33

PWD FILES

W 1 23/174/
W 1 23/112/9
W 1 23/2/7
W 1 23/74 pts 1-3

Works Maintenance Defence Works
Magazines General
PWD North Head Maintenance
Artillery Barracks North Head

National Archives Auckland

Public Works Files 1911-1957

Archival
Reference

BBAD 1054/2495a	North Head and Takapuna Construction & Maintenance.
BBAD 1054/2495b	North Head and Takapuna Construction & Maintenance
BBAD 1054/2495c	North Head and Takapuna Construction & Maintenance
BBAD 1054/2489a	North Head and Takapuna Construction & Maintenance
BBAD 1054/2489b	North Head and Takapuna Construction & Maintenance
BBAD 1054/2489c	North Head and Takapuna Construction & Maintenance
BBAD 1054/2490a	North Head and Takapuna Construction & Maintenance
BBAD 1054/2490b	North Head and Takapuna Construction & Maintenance
BBAD 1054/2490c	North Head and Takapuna Construction & Maintenance
BBAD 1054/2490d	North Head and Takapuna Construction & Maintenance
BBAD 1054/2474c	Devonport Naval Base
BBAD 1054/2474b	Devonport Naval Base
BBAD 1054/2474a	Devonport Naval Base
BBAD 1054/2486a	Devonport Naval Base
BBAD 1054/2486b	Devonport Naval Base
BBAD 1054/2467a	Devonport Naval Base
BBAD 1054/2469a	Devonport Naval Base
BBAD 1054/2469b	Devonport Naval Base
BBAD 1054/2469c	Devonport Naval Base
BBAD 1054/2469d	Devonport Naval Base

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Defence Records Registry, Wellington

Archival Reference

D 14/19/1 v2	Equipment & Stores Supply & Provisioning Disposal of Stores
D 40/1/1/ v1&2	Works Building and Land Policy and General Work Programme.
D 40/1/2 v 1-10	Works Building and Land Policy and General Works Programme
D 40/2/6	Works Building Lands Navy - Auckland Area
D 40/2/6	Works Building Lands Navy Auckland Miscell
D 41/9/1 v 2&8	Equipment Stores: Supply and Provision Disposal of Stores
D 41/1/20	Army Weapons & Equipment Policy
D 55/4/99 v 1	Information & documents & publications. Disposal of files, plans & archives
D 55/4/16 v 4	Requests for Historical Information
D 63/14/	Works & Buildings. Miscell Property register
D 63/5/12	Works & Building North Head Lands & Buildings
D 203/10/1	North Head General
D 203/10/5 v12	North Head Wharf at Artillery yard
D 203/10/6 v1	Electrical Installation North Head
D 203/10/ v3	North Head Land Exchange: House for Army Personnel
D 203/10/29 v1	Lease for Devonport pumping stations North Head
D 203/47 v7	
D 203/47/2	Fort Cautley - Narrow Neck minor works
D 203/47/4	Fort Cautley Electrical reticulation, heating, lighting maintenance
D 203/65	Building Devonport Artillery yard
D 203/169 v3	Rangitoto Waiheke Harbour fortifications
D 203/396 v3	Ardmore Magazine Area
D 205/18 v2	Fort Cautley & Takapuna

NAVY FILES

D 7833/414	Non defence property expenditure HD HGMDB
D 1540-000	General Administration
D 1325/3 v1-6	Aircraft North Head
D 40/3/10 v1-2	Works Building Lands Army Northern Area

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Naval Museum & Library, Devonport

Title	Drawing No	Date
Drawing Roll 1		
North Battery Plan	1573/2	n/d
North Battery Plan	1573/3	n/d
Cross Sections Sunken Way	1563/1	16/7/95
North Head & Cross Sections	485 or 1211	21/7/84
Cross Sections Right Battery	-	21/7/84
North Head Cross Sections & Longitudinal Section on Cart Road at right to Left Battery	-	n/d
Cross sections Left Battery	-	21/7/84
Cross section Left Battery (different drawing)	21/7/84	n/d
Untitled Survey information for batteries and sunken way	1563/2	n/d
Roll 2		
Left Battery Plan	-	21/7/84
General Details of Batteries North Head		
Emplacement Details CANCELLED		
Right Battery Plan Emplacement Details		21/7/84
Left & Right Battery Plan	PWD 8713	n/d
Blindage Engine & Test room (Abandoned)	1573/1	17/7/95*
Batteries North Head Site Plan	PWD 8712	n/d
modes of fixing positions of pivots and lines of fire CANCELLED	-	n/d
Batteries on North Head Sundry details of Ventilation fitting etc	1268	n/d
Plan of land taken at Takapuna Head		15/10/85
Emplacement 6" 5 ton BLR gun on HP carriage	1284	18/12/85
Batteries on North Head, details 7" emplacement CANCELLED	1573	n/d
Emplacement for 8" 13 ton BLR Gun on HP Carriage	1570-1	n/d

*Dates sometimes refer to an administrative event and not a date of drawing completion or issue.

Drawing Roll 3

Magazine at Summit: Interior fittings - 1556/3 17/7/95
 Magazines to show excavation free measurements are taken but rock should carefully be left standing between magazine n/d

Magazines plan and section for 1 & 2 gun 1556/- 1556 n/d
 Magazines plan and section for 1 & 2 gun 1556 n/d

Roll 4

Auckland Fortifications North Head & Takapuna: Cable Routes - 20/3/37
 Magazines No 1 & No 4 Gun Interior fitting 1260 18/3/85

Roll 5

Submarine Mining Depo North Shore 1993 22/4/96
 (show proposed cliff excavation & new building)
 Submarine Mining Depot Plan of proposed & existing building 1994 21/1/98

Roll 6

Submarine Mining Depo New forge (trace of old drawing)	-	1982
Submining launch with winch	1561/2	n/d
Untitled Possibly barge Construction Drawing	156/1	16/7/95
Untitled Wharf Construction Drawing	1310	15/4/86
Survey Plan of submarine Mining Depo	PWD14108	n/d
Site Plan Submarine Mining Depot Forge Closets	-	n/d
Survey Plan: Land required for Submining Depot	1634	19/2/97
Submarine Mining Depot Sheds Details of Fittings	1564-5	17/6/95
Plan & Details of Test Room Submarine mining depot	1564-4	16/7/95
Plan showing land required for submarine mining depot	1282/5	n/d
Submarine mining depot Ak Jetty Drawing 2	1564/7	12/3/86
Submarine mining depot Ak Mine Store shed	1564/10	24/4/86
Submarine mining depot stored for Whitehead Torpedoes	1564/12	12/3/86
Submarine mining depot stored for Whitehead Torpedoes	1564/13	16/7/95*
Submining Pit for testing primus	1564/15	n/d
Plan Showing land required at North Shore For Submining Depot	1282/9	26/6/86
Plan showing land required for submining depot	1282/11	10/2/98

Roll 7

Racer foundations with access to cylinder for 6" 5 ton Elswick HP Disappearing carriage	1577/1	17/7/91
Untitled. Plan & section of 6" gun pit	1577/2	17/7/91
Timber & concrete platform to 64 pr RML gun on colonial carriage & C pivot (plan and section)	1571/4	/4/98
Timber and concrete platform to 64 pr RML gun on ~C' pivot only (handwritten note for South Battery)	1571/3	/4/85
Shell Traveller for magazines for 7" guns (suspended)	1576	3/10/88
Magazine Fittings.	1566	8/7/84
Emplacement for 6 pr Nordenfelt gun	1568	1886
8" 13 ton BL Gun showing tramway round gun pit for travelling stage.	1569	1887
8" 13 ton BL Gun showing tramway round gun pit for travelling stage	1571/2	n/d
Traversing gear for 7" RML gun on C Pivot	1541/5	20/10/86
Plan showing fixing of racer for 64pr Mk at South Battery North Battery North Head.	1571/1	1891
Racer Foundation with pit for access to cylinder for 8" 13 ton BLR gun on Elswick HPDC.	1570/2	1887
Turntables trolley 6" & 8" shells.	-	1886
Details Magazine fittings	1566/4	1886
Traversing gear for 7" RML gun on C Pivot	1571/1	n/d

Racer & Bed plate for 64pr RML on colonial carriage with C Pivot.	-	3/4/85
Shell trolley for 6" 5 ton BLR Gun on H-P. Carriage	1567	1886
Untitled: Plans & sections: gallery & magazine & 6" gun pit Fort Takapuna	1566	3/8/86
Untitled: Associated drawing magazine and 6" gun pit	1566	3/8/86

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North Shore City, Devonport Service Centre

Domain Board Minute Book: 1881-98

Devonport Borough Council Minute Books: 1886-1974

NB Council minutes bound into volumes incorporating two years of entries.

File: Defence Properties 1925-45

Drawings & Photographs: Drawing North Head Outfall - Sewage flow data 1964.

Drawing North Head Outfall: Plans & section of tunnel & pumping chamber at beach site 1936.

N.S. Drainage Board: Plan of No 1 trunk sewer at Devonport Scheme 3 1966

Photographs (Aerial)

North Head 1'1" scale

24101 1959

24102

24103

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Whites Aviation, Browns Bay

Whites Aviation has a collection of aerial photographs of North Head dating from the 1930's. These photographs have been examined with care. A further examination will be made before the completion of the final report.

The Walsh Memorial Library, Museum of Transport & Technology

The director of the museum has made a search of the library holdings. See letter Appendix A.

Works Consultancy Services, Auckland

Formerly the Ministry of Works and Public Works Department, Works Consultancy have holding of microfilm records of public works. The following drawings have been examined.

ADO 1578	Observing Station and shield	17/7/95
ADO 1576	Shell Traveller for Magazines for 7" gun	17/7/95
ADO 1577-1	Racer Formulation with pit for access to cylinder for 6" 5 ton BL gun	17/7/95*
ADO 1577	Racer Formulation with pit for access to cylinder for 6" 5 ton BL gun	17/7/95
ADO 1573	Auckland Harbour North Head Blindage engine and test room (abandoned)	17/7/95
ADO 1573	General Details North Head Details of Emplacement for 64 pr emplacement (cancelled)	17/7/95
ADO 1572	Pattern lamps	n/d
ADO 1573/5 (PWD 8715)	General Details North Sundry details of fittings and ventilation	16/7/95*
ADO 1571	Plan showing fixing of Racer for 64 pr ML at South Battery	n/d
ADO 1571 SH4	Timber and concrete platform for 64pr RML gun on colonial carriage and 'C' pivot	1891
ADO 1571/5	Traversing gear for 7" RML gun on pivot	1885
ADO 1571/6	Racers and bedplates for 7" RML gun and 64 pr ML on 'C' pivot and colonial carriage	3/4/85
ADO 1571/3	Timber platform with concrete bed for 7" RML gun on C pivot	n/d
ADO 1567	Shell trolley for 6" 5 ton B.L.R gun on hydro pneumatic carriage	n/d
ADO 1570/5	Racer foundation with pit for access to cylinder for 8" 13 ton B.L.R. gun on Elswick H-P disappearing carriage	n/d
ADO 1570/1	Emplacement for Eight inch thirteen ton BLR gun on H-P carriage (showing altered recesses)	n/d
ADO 1569	8" 13 ton B.L.R gun. Plan showing tramway round gunpit for travelling stage.	n/d
ADO 1566/5	Magazine Fittings (not included)	1887
ADO 1566/4	Details Magazines fittings	8/7/86
ADO 1566/3	Magazine and Artillery store	n/d
ADO 1566/2	Fort Takapuna	3/10/8
ADO 1566/1	Fort Takapuna	3/10/8
ADO 1565	Turntables (for 6" & 8" shells)	n/d
ADO 1564	North Head: sketch submining depot (Fittings of Test room)	17/6/86
ADO 1564/4	Fittings of Test room	17/6/86
ADO 1546/5	Fittings of Test room	17/6/86
ADO 1564/7	Site Plan of Submarine Mining Depot at North Shore showing forage, closets etc	17/6/86
ADO 1564/8	Site plan of submarine mining depot at North shore showing storage closets, etc	n/d
ADO 1564/6	Submining Mining Depot (Bastion Point)	12/3/86
ADO 1546/10	Submining Depot Mine Store = Shed	20/4/86
ADO 1546/10	Submining pit for test primers	/4/86

ADO 1546/16	Submining pit for test primers	n/d
ADO 1561/1	Drawing for Barge (untitled)	n/d
ADO 1561/2	Boat with windlass and boiler	n/d
ADO 1299/1	Officers Quarters: Armed Constabulary North Head	n/d
ADO 1249/2	Officers Quarters: Armed Constabulary shed and Outhouse	7/2/86
1299/3	Officers Quarters: Armed Constabulary North Head. Shed and Outhouse.	9/2/86
1282/11	Land required for submining depot	9/2/86
1282/10	Site for submining depot	10/2/86
1198	Emplacement for 64pr RML gun for drill and practice at North Head (site sections)	n/d
1198/3	Temporary Emplacement for 64 pr RML gun for firing practice	n/d
ADO 1198/2	Site plan. Emplacement for 64pr RML gun at the North Head (shows contours and site context)	n/d
ADO 1198/1	Locality plan. Emplacement for North Head 64pr RML gun at North Head	n/d
AA 869/1A	Plans, section, elevations. Seaward Defence HQ Navy North Head	n/d
Sh 3	Alternative Timber roof Operations Roof. Seaward Defence HO for HM Navy	n/d
AA 869/1A	Plan and section Operation room. Seaward Defence HQ for Navy	n/d
Sh2	Site plan of summit battery North Head	n/d
AA 869/1A	Auckland Storage, survey of storage built under War Expenses Act	n/d
Sh1	Mobilisation Camp	n/d
AA 869/1		
AA 371/1		
AA 468/2		
ADO 21540	Fort Takapuna	n/d
ADO 18303	Coastal Defences, Whangaparaoa Ammunition Hoist	
ADO 18303-1	Doors	23/9/41
ADO 19374	Coastal Defences, Whangaparaoa Ammunition Hoist	
ADO 9744	Doors	
ADO 9744-1	NMNZS Tamaki	24/9/4
ADO 4005/3	Royal Naval Magazine, Fort Takapuna Devonport	21/9/42
ADO 4005/1	Royal Naval Magazine, Fort Takapuna Devonport	23/1/31
ADO 4005/2	Site plan and levels, House FW Wilson	18/4/28
ADO 4357	Site Plan 6" Battery Burtons Point	18/5/11
	Site plan levels	16/1/11
	New Zealand Defence submining Depot, sketch plan showing present arrangements of buildings	26/1/11
		1911

Waiouru Army Museum

The following drawings have been located:

PWD 101 645 2-4	Layout of foundation etc for engine room at North Head	n/d
ADO 15188		
PWD 101645 1-4	Alternatives to engine room North Head	n/d
PWD 101645 4-4	B.O.P Site plans	n/d
PWD 101645	B.O.P (sections)	n/d
PWD 101645 3-4	Searchlight emplacement North Head	
ADO 15188		

APPENDIX 4

ARCHIVAL CORRESPONDENCE

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H.M.S. "CHATHAM",

at Auckland,

2nd May 1923.

MEMORANDUM for :-

The Chief Staff Officer,
Navy Office,
Wellington.

After conversation with Colonel Standish and Major Sandalls yesterday, - having seen the correspondence from Defence Headquarters about ammunition being placed in Mount Victoria magazines - I think I have induced them to reply to Headquarters as follows.

1. That the magazines of the forts at Devonport, i.e., North Head and Mount Victoria can satisfy the Naval requirements of 10,500 cubic feet.
2. That Mount Victoria alone, having a capacity of 5,000 cubic feet roughly, cannot satisfy naval requirements by itself.
3. That as the sloops' reserve outfits were landed by "CHATHAM" and placed in North Head magazines with "CHATHAM'S" ammunition before the arrival of the said correspondence, the Commodore particularly requests they be left there, and not moved to Mount Victoria, observing that it makes supervision by the Commissioned Gunner (Mr. Simmonds) and staff much simpler, by having all seagoing ships' ammunition in one place.
4. That Mount Victoria magazine being difficult of access should be eventually reserved for the ammunition for D.A.M.S., A.P., and depth charges.
5. Please endeavour to get the matter settled before "CHATHAM" leaves for her cruise

Alan Hotham

COMMODORE COMMANDING.

FROM... The Gunner Office r, H.M.S. "CHATHAM"
TO... The Commodore Commanding New Zealand Station.
DATE.. 5th, May, 1923.

.....
Submitted:-

I visited North Head yesterday Friday (4th May),, and was shown over the Searchlight Station as a probable overflow stowage for Ship's Reserve Outfit and 2½ years practice allowance.

Major Sandall informed me that there was no objection to the Navy having full use of the space available and that he had intimated to Headquarters that this section was to be offered to us. I asked him if I could inform the Commodore Commanding N.Z. Station to this effect and he replied it would be quite in order and wished me to also forward a plan of section. This is additional stowage and in no way alters arrangements made re Port Victoria.

2. Rough Plan with dimensions of stores is forwarded herewith.

3. Before the section can be used for stowage of ammunition certain repairs will be necessary.

(a). Doors or gates to be fitted where shown on plan. Hinges fitted into the cement are already in place.

(b). The shutters for searchlight casemates are in a very bad state and allow easy access from the foot of cliff. These should be boarded up or preferably a window fitted for lighting in one section of boarding.

(c). Wooden battens fitted and placed in both Locked stores.

(d). A steel or iron hatch fitted on top of concrete Trunk at surface (at present there is a wooden hatch in disrepair).

(e). The roadway leading to top of trunk is overgrown and requires cleaning and in parts to require breaking in places.

Major Sandall informed me that there is a made road under the grass and weeds, and there appears to be the remains of one.

4. Should the above-mentioned repairs meet with your approval it is suggested that:-

(a). A number of empty packing cases now stowed abreast the ship may be appropriated for making Battens, Flooring and Doors.

(b). Iron or Steel plates may be supplied by Base for Hatchway to Concrete Trunk.

(c). Tackle and wire for hoisting and lowering ammunition through concrete trunk to be supplied from ships resources.

(d). The services of a shipwright be available for these repairs.

5. All necessary repairs can be carried out by the ships staff.

G. J. Hub' Donnell

LIEUTENANT (G)

1st
Engineer,
Department,
Auckland.



A-P.M.

2/1 In replying

R.W. 8/12

Please quote these numbers.

PUBLIC WORKS DEPARTMENT.

Auckland, N.Z. 13th March, 1924.

re Magazine Accommodation, Defence Department, North Head

Memorandum for

The Officer Commanding,
Detachment R.N.Z.A.,
Devonport.

With reference to your memo. D.29/21 of the 19th ultimo I have to advise you that an inspection has been made of the engine room which it is proposed to use for storage purposes and it was found that a considerable amount of expense would be necessary to put the work in satisfactory condition. Extensive repairs are required to concrete floors and the roof is in a very leaky condition. About 450 cubic yards of soil would require to be shifted to allow of the concrete roof being repaired and coated with tar and sand.

An approximate estimate of the cost of carrying out the work required is as follows:-

Rough filling for floor,
6 yds. @ 5/-.....£1.10..0.

Concrete for floors,
17 cub.yds. @ £4.....68..0..0.

Shifting 450 cub.yds. of
soil @ 5/-.....112.10..0.

Tarring and sanding,
2 coats, 230 yds. @ 2/6d. 28.15..0.

Providing ventilation.... 5..0..0.

Providing soakage pipe.... 6..0..0.

Fares and contingencies... 16..5..0.

£238..0..0.

A. J. M. E.

District Engineer.

The Under Secretary:
P.W., Wellington:
For your information.

H. J. D.E.

24/1 file



DOMINION OF NEW ZEALAND.

C.14/6/Arty.

DEPARTMENT OF DEFENCE,

HEADQUARTERS OFFICE,

WELLINGTON.

9 June, 1924.

Confidential.

Chief Staff Officer,
Navy Office,
Wellington.

Re :- Storage of Naval Ammunition at Auckland.

Adverting to your office N.A. 11/2/11 of 28th. March, 1923, and my reply thereto numbered as above and dated 8/5/23, I have now to advise you that the immediate arrival in Auckland from England of a comparatively large consignment of Army Ammunition and the, as yet, non-provision of magazines at Ngaruawahia, has placed considerable difficulties upon us in the matter of finding temporary accommodation.

In connection with the provision of magazines at Ngaruawahia, this Department has been, and is still in, constant and pressing negotiations with the Public Works Department, but in consequence of obstacles which have arisen - primarily monetary considerations - our pressing needs in the matter of magazine accommodation there have not yet been met. Plans and specifications are now being prepared, however, by the Public Works Department and it is hoped that work will be commenced this year.

In view of these circumstances, it is thought that perhaps the Navy could see its way clear to help us and in this connection the following suggestions are put forward :-

- (1) Postpone the arrival in the Dominion of any further Naval ammunition until accommodation at Ngaruawahia has been provided for Army ammunition.
- (2) Transfer from North Head to Fort Victoria as much Naval ammunition as can be conveniently and adequately stored at the latter place, resultant space at North Head being utilized for storage of Army ammunition pro-tem.

(COPY)

H.M.S. "Philomel"

at Devonport, N.Z.

10th June, 1924.

Sir,

In compliance with the Commodore's verbal orders, I have the honour to submit for your consideration the following points relative to the stowage of ammunition at Mount Victoria.

(1). Safety.

At present there are no sentries or guards on the hill and nothing to hinder any person going to the magazine and interfering with the ammunition. The entrance to the magazine is open, the various stores being closed with wooden doors locked with ordinary locks.

In view of the cordite for D.E.M.S. shortly arriving and the fact of this magazine to be the main one for the Navy, I would submit that the following precaution be taken.

(i). To cover in the gun pit with wooden and canvas covering and to place an armoured door at the entrance to the passage way leading down to the magazine.

(ii). That the house on the hill at present occupied by a soldier working in the Takapuna fort to be taken over by the Navy and occupied by the two pensioners recommended to be employed on the staff of the A.S.O. These two pensioners with the Gunner's Mate would form three watches, one of whom is to be continually on the hill.

(2). Paths.

The paths to the magazine require clearing. The ashes at present discharged from H.M. Ships could be utilised for this purpose with the cost of cartage only. This would be done economical with the 3 ton lorry of the Post and Telegraph Department. The speed in transit of these lorries being the greatest asset.

(3). Lighting.

At present there are no lamps supplied. Regulations for Naval Armament Services, Page 150, gives a list of lamps for general use in magazines. Permission is requested to demand these lamps from England. (10 in number would be required.)

(4). Stowage.

It is submitted that the stowage of ammunition be concentrated on this magazine. That the Reserve ammunition for "Chatham" be left at North Head until the Admiralty decision as to the disposal of same be known. The Sloops ammunition and sub-calibre, 3 inch, and small arm ammunition for "Dunedin" be transferred to Mount Victoria (this will clear the Navy out of Cawley entirely and out of the South Battery with the exception of one store). That the Navy retain the North Battery at North Head until such times as can be said definitely that the whole of the ammunition can be stored at Victoria. When the Admiralty decision re the reserve ammunition is known the South Battery can be surrendered altogether.

These magazines could be taken over by the Navy entirely for caretaking and upkeep.

I have the honour to be, Sir,
Your obedient servant,

V.S. SIMMONDS
Commissioned Gunner.

The Commanding Officer,
H.M.S. "PHILOMEL".



DOMINION OF NEW ZEALAND.

C. 14/6/Arty.

DEPARTMENT OF DEFENCE,
HEADQUARTERS OFFICE,
WELLINGTON.

26th March, 1925.

CONFIDENTIAL.

The Chief Staff Officer,
H.M. Navy Office,
Wellington.

Re :- Storage of Naval Ammunition - Auckland.

With reference to my C. 14/6/Arty. dated 27th June, 1924, kindly note that Headquarters, Northern Military Command, reports that the following magazine accommodation at North Head is still occupied by Naval Ammunition :-

North Battery : The whole magazine.
South Battery : One long passage and one large magazine.
Fort Cautley : Three small magazines.
Sub-Mining Tunnel : One long passage.

It is understood the move of ammunition to Fort Victoria was delayed pending completion of certain structural alterations at the latter place.

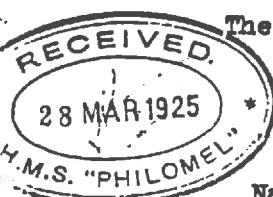
Can you please inform me how the matter stands and what prospect there is of all Naval Ammunition being moved from North Head to Fort Victoria at an early date?

W. W. Ward
Lt.-Colonel,
Director of Artillery.

II



The Commanding Officer,
H.M.S. "PHILOMEL".



Navy Office
26th March 1925

A.P.O.

Forwarded for remarks, please.

Reginald Souter
Naval Secretary.

H.M.S. "DUNEDIN"

at Auckland,

17th June, 1925.

The Commodore Commanding
New Zealand Station.

Submitted:- With reference to Commanding Officer H.M.S. "PHILOMEL'S" letter, the following report is forwarded.

2. The space required for Naval purposes is shown in Memo. 1., of the 15th June, 1922, (11000 cubic feet). This was not affected by the change from Ngaruawahia to Auckland later on, (Memo. 1a.).

3. A definite assurance was given by the Defence Department (Memo. 2.) of 19th June, 1923, that 6000 cubic feet at North Head, and 5000 cubic feet at Mount Victoria, have been definitely allocated for Naval use.

4. On 9th June, 1924, (Memo. 3.), Defence asked Department if Navy could remove all ammunition to Mount Victoria as a temporary measure, to assist them till Ngaruawahia was completed. This has been very nearly complied with, (Memo. 4.).

5. An entirely new idea was put forward on 4th July, 1924, (Memo. 5.) that Navy should "eventually evacuate North Head altogether". This is quite out of the question, as will be shown later.

6. At present, "DUNEDIN'S" reserve outfit, and sloops reserve outfits with two and half years practice allowance, also shell for D.E.M.S. guns, are stowed at Mount Victoria, and there is no more stowage space available. North Battery (at North Head) has ~~some~~^{empty} cases in it and six warheads and three depth charges, and the Searchlight Station has fifty smoke floats in its ~~reserve outfit~~.

7. When "DIOMEDE'S" reserve outfit arrives on the station, it will be necessary to utilise the stowage at North Battery (approximately 3000 cubic feet).

If and when.....

11.

If and when a third cruiser arrives, additional space will be required at North Head.

8. Suggested Requirements.

All Mount Victoria magazines.

North Battery, North Head.

South Battery, North Head.

I am unable to agree with my predecessor's letter (Memo. 6.) that the Searchlight shelter can be considered a suitable stowage for ammunition. The smoke floats already there are deteriorating rapidly through damp. The need for North and South Batteries will not arise until more cruisers arrive on the station.

9. Distribution of Ammunition.

Mount Victoria magazines, being the largest, can hold one cruiser's and two sloops' outfit, and a proportion of the D.E.M.S. ammunition. North or South Battery will each hold a cruiser's outfit, and a proportion of the D.E.M.S. ammunition. Suggest Military caretaker as at present.

10. Conditions of Stowage.

North and South Batteries are both in good repair, and suitable for immediate stowage. The question of ownership is now clear, as the Defence Authorities have never stated which magazines were turned over to the Navy. Naval ammunition was previously stowed in both North and South Batteries and Fort Cautley. Smoke floats are the only explosives that have even been stowed in searchlight shelter.

Kenneth Edwards

LIEUTENANT COMMANDER. (G).

CONFIDENTIAL

2nd April 1925

~~MEMORANDUM FOR:~~

The Director of Artillery,
 Department of Defence,
 HEADQUARTERS Office,
 WELLINGTON.

With reference to your Cl4/6/Arty of the
 26th March 1925 concerning storage of Naval Ammunition at
 Auckland, I beg to report that the Commanding Officer,
 H.M.S. "PHILOMEL" states as follows:-

(a) North Battery.South Battery.

The shell in the North Battery is now
 being moved to Mt. Victoria. Owing to
 lack of room in the magazines this
 shell is being stowed in the fire
 control position, to which position a
 road has recently been made. The
 cordite in North Battery, which occupies
 three small magazines and all the
 ammunition in South Battery, is to be
 returned to England.

The three magazines at Port Cawley
 were cleared in August last. Two of
 them are vacant, and Military Ammunition
 is stowed in the other.

The passage in the sub-mining
 tunnel will be cleared shortly.

2. It is regretted that there appears to be no possibility of
 removing before June or July, the ammunition which has to be sent
 to England, as shipping Companies at this season of the year can
 obtain full cargoes and refuse to take these stores which would
 delay their ships. The delay in clearing the sub-mining tunnel
 is regretted.

C.S.O.

Naval Secretary.

H.M.S. "DUNEDIN"

at Wellington, N.Z.

2nd. August, 1926.

COMMODORE

The following remarks on the stowage of Ammunition at North Head and Mount Victoria are submitted for your information:-

(i) The present spaces available for stowage of Naval Ammunition are :- All Mount Victoria and the North Magazine and Boiler House at North Head; these have proved sufficient, until recently, for the stowage of all Naval Ammunition. The reserve supply of 4" High Angle ammunition of H.M.S. "DIOMEDE", which was received about six weeks ago, cannot be accommodated in the above spaces, with the result that it is, at present, kept in the gun-mounting shed at the Base.

(ii) A letter has been received from the Admiralty stating the amount of ammunition that will be maintained at the Base for D.M.S. Fast Liners and Local Defence Vessels. A certain amount of this has been received and is correctly stowed; this is about one third of the total so that there remains two thirds, of which no information is yet available as to its date of arrival; this may happen at any time. There is no stowage at all available for the accommodation of this ammunition.

(iii) The ammunition at present kept in the spaces mentioned in Paragraph (i) is as follows :-

Complete supply of Reserve Ammunition for H.M. Ships of the New Zealand Division, viz H.M. Ships "DUNEDIN" & "DIOMEDE".

Complete supply of Reserve Ammunition for Imperial Sloops
viz H.M. Ships "VERONICA" & "LABURNUM".

One third of D.M.S. Ammunition as stated in para. (ii).

(iv) My predecessor anticipated this difficulty arising but, at that time, did not know the amount of D.M.S. Ammunition which would be maintained on the Station; however, realising that there would be insufficient accommodation, he applied for the use of the South Magazine at North Head. No record of the correspondence on this subject is available in your Office but it is believed to be kept at Navy Office. I have been given to understand that we were informed by the Military that the South Magazine would be available for the stowage of Naval Ammunition as soon as the Military Depot at Ngaruawahia could accommodate the Military Ammunition now stowed in the South Magazine. The South Magazine would be sufficient to accommodate all the D.M.S. Ammunition which has not yet been received.

(v) I understand my predecessor also stated that, with the South Magazine, there would be sufficient space available for the stowage of all ammunition now authorised and also for the reserve ammunition of a third cruiser, should one be attached to the Station. At the present time I cannot endorse this opinion as he was not expecting to have to accommodate so large an amount of D.M.S. Ammunition. The question of stowage is a difficult one as only certain types of explosive may be stowed together with the result that there is necessarily a certain amount of space wasted.

(vi) It is realized that more accommodation will be available in the old Boiler House at North Head, when certain alterations are made. This is not a satisfactory stowage at the present time owing to the fact that the road leading to it is frequently impassable for lorries during the winter months. It is believed, however, that this has been taken in hand for remaking by the Military commencing this week.

(vii) I will not risk a definite opinion but it seems probable that with the South Magazine and the old Boiler House altered as

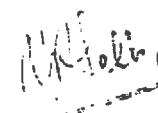
necessary that there will be room for all ammunition now authorised and also for the accommodation of a third cruiser's reserve ammunition. A definite opinion could be given when the D.M.S. ammunition now authorised has been received. If it is found that the third cruiser's reserve ammunition could not all be accommodated I consider that the amount of extra space required for this would be small.

(viii). Summed up, the situation may be stated as follows : -
Further accommodation is required at once. I consider that the Military Authorities be again asked if the South Magazine can be surrendered to the Navy. If no further space can be made available for the stowage of D.M.S. Ammunition then a cable be sent to England stopping all shipments of ammunition other than those required for H.M. Ships "DUNEDIN" and "DIOMED", "VERONICA" and "LABURNUM", until further orders. In my opinion there is no alternative.

(ix) The stopping of any further D.M.S. Ammunition being sent out to Auckland would be a serious matter. Nearly all the guns and mountings have been received and are in store; these would be valueless without the ammunition.

(x) I have been informed, rightly or wrongly it is not possible for me to say, that there is ample accommodation completed at Ngarnawahia to take all the ammunition stowed by the Military in the South Magazine at North Head. If this is a fact there appears to be no reason why this magazine should not be cleared at once. As regards future policy, it does not appear to me to be necessary for the Military to retain any ammunition at North Head beyond what is required for the 6" Battery and Saluting Guns. At the present time I should estimate that about 75% of the Military ammunition stowed there is in no way connected with the Battery. It would be a matter of interest if the Military Authorities could let us have an outline of their policy on this subject.

(xi) If I may be pardoned for airing a personal opinion, it appears that the Military Authorities are not regarding this matter from a Defence point of view but rather from the point of view of one business firm dealing with another. The matter of armament for Fast Liners, D.M.S. and Local Defence Vessels is as important to the Dominion as the equipment of Military Batteries, Troops, etc. It appears to me that, without adequate defences for the ports and for vessels carrying the Dominion's Overseas Trade, a state of affairs would arise which might have very serious results to the Dominion as a whole. This can be largely safeguarded by the closest co-operation between the Naval and Military Authorities.


SQUADRON GUNNERY OFFICER.

H.M.S. "DUNEDIN"

at Wellington, N.Z.

11th. August, 1926.

COMMODORE.

Submitted.

1. In accordance with your instructions I proceeded to Auckland by train on 8th. August. On arrival I made arrangements to meet Lieutenant-Colonel Symonds and Lieutenant-Colonel Burgess at North Head to visit the Magazines at that place and to inspect the buildings at Fort Takapuna; it had been suggested that the latter might prove suitable as additional magazines.
2. Commander Bradley was present at the inspection which commenced by proceeding to the various magazines at North Head in which Naval Ammunition is stowed. It was apparent from conversation with the Military Officers that they are seriously pressed for magazine stowage, as we are, and they were quite frank in saying that it would help them considerably if arrangements could be made by which we cleared North Head of all Naval Ammunition.
3. After North Head a visit was made to Fort Takapuna; this is situated about a mile from Devonport Pier and is within a few hundred yards of the new concrete road so that lorry transport is simple; the Fort is within a small Military Camp which is cut off from the Public by a high fence. The Camp is used periodically for the training of Territorials but usually contains a caretaker, a few Military ranks and One Officer.
4. Takapuna Fort is now considered obsolete. There are two gun-pits, at one time mounting 6" guns on disappearing mountings; one of them is now dismounted, the other is in place. It was suggested that these gun-pits could be roofed over and used as magazines as has been done at a Fort near Wellington. The gun-pits are joined by a moat which leads to a large brick house which, at one time, acted as magazine and also living quarters for the crew of the battery. The whole of this building, which appears to be in fairly good condition, is below the level of the surrounding ground and is encircled by a ditch.
5. We were given to understand that this Fort would be leased to the Navy at a purely nominal rent and could be used entirely for the stowage of Naval Ammunition.
- 6.p Before Fort Takapuna could be used as a Naval Magazine a considerable amount of alterations and improvements would have to be effected; the Engineer Officer of the Base was asked to estimate the cost of these and his report is attached. After further discussion it was decided that the following should be added to his estimate :-

Lighting.....	£80.
Water service for fire mains.....	£30.
Removing wooden floors of living rooms and replacing with concrete.....	£110.

These would bring the total estimate to just over £1,800. The Naval Officer in Charge, Auckland, suggests that a Supplementary Estimate of £2,000 be asked for if it is decided to take over Takapuna Fort.

7.....

7. Plans of the Fort are now being printed at Auckland and will be forwarded as soon as completed. It can be seen from them that the whole site would form a compact magazine. It is calculated that, using the present space at Mount Victoria and also Fort Takapuna, converted according to the Estimates, there would be room for all D.M.S., Fast Liner and Local Defence ammunition in addition to the reserve ammunition of three 'D' class cruisers and two Imperial Sloops.

8. The Engineer Officer of the Base estimated that he could have the attached alterations carried out in about 3 months from the date of commencing. I consider that temporary arrangements could be made for the stowage of any ammunition which should arrive before Fort Takapuna is ready, provided it is commenced as soon as possible.

9. I consider that £2,000 would be well spent in obtaining a settled policy as regards the stowage of Naval Ammunition. Fort Takapuna appears to be eminently suitable for this purpose, the only disadvantage appears to be the expense of its conversion. When completed it will be more convenient than North Head as the roads are better and there should be no further clashing of the needs of the Navy and Army departments.

10. In conclusion, I recommend that arrangements be made to lease Fort Takapuna from the Military Authorities as soon as possible and to request them to arrange for the dismounting of the remaining 6" gun. If this is done, then the alterations and additions mentioned in paragraph 6 should be commenced as soon as possible.

11. If it is not possible for this to be carried out there appears to be no alternative but to stop further supplies of ammunition being sent from England. There is no stowage available for ammunition which may arrive in the future and it does not appear that any will be forthcoming unless money is expended.



SQUADRON GUNNERY OFFICER.

HISTORY OF STORAGE OF NAVAL AMMUNITION AT DEVONPORT, NEW
ZEALAND, 1926 - 1929.

1926.

1. In 1926, after the second Cruiser arrived on the New Zealand Station, the situation regarding the storage ashore of Naval reserve ammunition was highly unsatisfactory.
2. The ammunition was stowed at that time in the galleries and other chambers underneath the various disused Forts on the North side of Auckland Harbour.

These Forts are under the charge of the Military Authorities who allowed the Naval ammunition to be stored there, but undertook no responsibility for its safety.

3. The 6" cordite was stowed in a gallery at Fort Victoria where it was so congested that it was necessary to unstow every case in order to examine those at the back of the gallery.

The 6" shell were stowed in underground galleries at North Head, where they were deteriorating very rapidly through rust and damp.

There was no lighting system whatever in these galleries, and magazine lamps were used for all purposes and proved very inadequate. The galleries were always damp.

4. In June 1926, in connection with proposals to send out reserve ammunition for D.E.M.S. etc., the Naval Officer in Charge reported that it was impossible to stow any more ammunition.

5. In September 1926, negotiations were put in hand to take over Fort Takapuna from the Defence Department as a Naval Armament Depot and to evacuate all other stowages.

Fort Takapuna was equally convenient to the Dockyard and was no longer required by the Defence Department.

1927 ...

HISTORY OF STORAGE OF NAVAL AMMUNITION AT DEVONPORT, NEW
ZEALAND, 1926 - 1929.

1927.

6. Approval was obtained to proceed with the necessary work immediately; both the old 6" Gun pits of the Fort were roofed in to serve as cordite magazines; the barracks in four were repaired to serve as shell stores; two new buildings were erected as Q.F. magazines.

7. Early in 1927 the shell were moved in and were found to be in very bad condition, necessitating scraping and repainting the whole of the 6" shell reserve.

8. The Chief Inspector of Explosives in New Zealand examined the site in March 1927 and approved the arrangements which were being made.

9. In June 1927, to allay ~~the~~ public apprehension the Mayor of Devonport and some of the Councillors were escorted over the Fort and the arrangements were explained to them.

10. In September 1927, a Committee was appointed consisting of Captain J.S.M. Ritchie, R.N., (Chairman) with the Gunnery Officers of the two Cruisers as members to decide upon the distribution of the available accommodation and to make other recommendations.

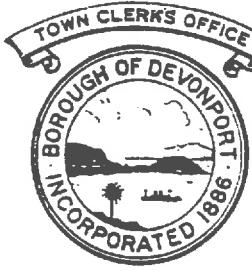
11. The Committee drew up a scheme of storage of ammunition according to the classification of explosives, noting that this was in accordance with the Regulations for Naval Armament Services, with the exception that it was not possible to store all the different groups of explosives in entirely separate buildings nor to maintain the correct distances between them. The Committee considered that in view of the small total amount in each group this could be accepted, which accordingly was done.

ALL COMMUNICATIONS

TO BE ADDRESSED
TOWN CLERK
R.O. BOX 3
DEVONPORT

OFFICE HOURS

WEEK DAYS 9 A.M. TO 12.30 P.M.
1.30 P.M. TO 4.30 P.M.
SATURDAYS 9 A.M. TO NOON



After the conference the party climbed Mt. Victoria and inspected the topography of the borough from that elevation; mention being made of the storing of 700 tons of such explosive beneath the reservoir. Mr. Hammond promised that when Devonport gets down to its scheme and wants any advice as to how to meet any problem he would give any help in his power.

20th. May 19 27

The Hon. the Minister of Defence.

WELLINGTON.

Sir,

Re storage of Ammunition on Mt. Victoria

I am directed to acknowledge receipt of your letter of the 23rd. ult., advising that steps are being taken to evacuate Mt. Victoria and remove to another Magazine.

It is learned that it is simply intended to remove from Mt. Victoria this large quantity of explosives to another magazine within the Borough.

The Council does not consider the Department's reply at all satisfactory; and is ^{emphatically} of the opinion that a closely populated Borough such as this, is not a fit place to have such large quantities of explosives stored.

The Council views the situation with alarm; but as pointed out in a previous communication has dealt with the matter "in Committee". However, in a recent issue of a local newspaper (clipping enclosed) the matter was made public without the authority of the Council. If the total amount of explosives stored in the Borough were made known to the public the Council fears a scare would be created which would have a detrimental effect on Devonport for which the Council will take no responsibility.

Yours faithfully,

NAVAL SECRETARY.

J. H. L. S.
TOWN CLERK.

381
23.5.27

RELEASED UNDER THE OFFICIAL INFORMATION ACT

APPENDIX 5

CORRESPONDENCE



MUSEUM OF TRANSPORT AND TECHNOLOGY OF NEW ZEALAND
and
NEW ZEALAND SCIENCE CENTRE

CHAIRMAN, J.O. HAWORTH, FCA, FNZIM
DIRECTOR, R.S. DEARING, FNZIM

15th July 1992.

Jeremy Treadwell,
104a Grey Street,
ONEHUNGA,
AUCKLAND.

Dear Mr. Treadwell,

In response to your recent enquiry regarding tunnels at North Head, Devonport and the possibility of Boeing aircraft being stored there, I wish to report that despite extensive searches in the archives, photograph collections and printed sources in the Walsh Memorial Library, no information has been found.

Yours faithfully,

Lorraine Wilson

Lorraine Wilson, JP, FTCL, ANZLA, NZLA cert.
Librarian,
Walsh Memorial Library.

FACSIMILE MESSAGE

Date: 29 September 1992

To: Department of Conservation
Auckland Conservancy

Fax No: (09) 377-2919

Attention: Graeme Campbell

Your Reference: DOC 013-10

Our Reference: NZDF 1325/3

LAND MANAGEMENT
 RESOURCES BRANCH
 HQ NZ DEFENCE FORCE
 PRIVATE BAG
 WELLINGTON

Fax 4960-839

Telephone: 4960-937

Page 1 of 1

From: Land/Facilities Policy

NORTH HEAD

1. Please refer to your letter DOC 013-10 dated 23 July 1992, subsequent facsimile, and recent conversation with Ian Bradley, Capt RNZN Retd.

2. We have turned up nothing new. It is understood that Jeremy Treadwell had access, amongst many other files, to the "six" Defence volumes in the 1325/3 file series which canvass the "search" for aircraft, and ammunition, said to be buried within the old tunnel fortifications on North Head.

3. We have not located a record of the Forts and Works Register - presumably, the Northern Military District "Works" register of files or plans. A copy of the drawing, Forts and Works N.W 1104, appears in the August 1990 Conservation Study - North Head: The Development of a Fort by David Veart, at page 36. We can provide a further copy of this same drawing, if required. There is no trace of further drawings in this series which would probably have been enlargements of individual or groups of buildings shown on N.W 1104.

4. We also have copies of ten (10) early drawings of the gun fortifications at North Head and the Boatyard. These same mostly PWD drawings (from Drawer 15) are also recorded in the Veart study appendices. We can provide further copies, if required.

5. In conclusion, records relating to old fortifications at North Head would have been transferred to National Archives after disbandment of Army units. Any other early material of North Head is held in the former Works and Development Services, Conservation or Survey and Land Information records as referenced in Appendix 4 to 7 of the Veart study.

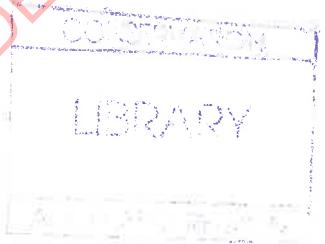
G. Wallingford
 G. WALLINGFORD
 for Chief of Defence Force

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Treadwell, J.L.
North Head investigation
1992: interim research
report.

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Issued to 9377
Treadwell, J.L.
North Head investigation
1992: interim research
report. 9377



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