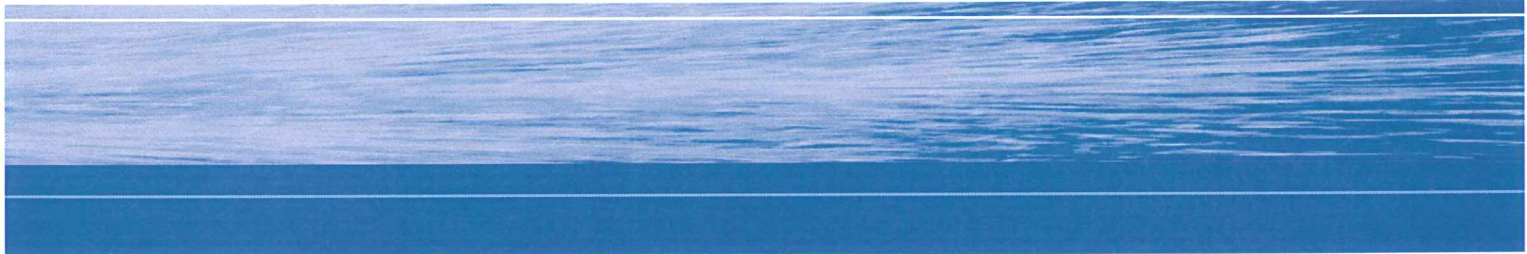


Manilla Combined MPS / Health One

Stage 1 Preliminary Environmental Site Investigation

Geotechnical & Environmental
Report No. 08-GO37B
December 2008



ABSTRACT

Tamworth Region (NSW Department of Commerce) commissioned the Geotechnical and Environmental Unit to undertake a Stage 1 Preliminary Environmental Site Investigation for the proposed redevelopment (Manilla Combined MPS / Health One) within the existing Manilla Hospital complex, at Manilla, NSW. In the investigation, no sampling and analysis was conducted

This report presents the findings from a site inspection/interview, enquiries with various authorities, a review of published geological mapping, preliminary risk assessment, presents conclusion from the findings, and makes recommendations.

J. Lenehan
General Manager
Dams & Civil Technologies

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NSW DEPARTMENT OF COMMERCE

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1 EXECUTIVE SUMMARY

Any party relying on this report be advised that this executive summary must be read in conjunction with the attached report of which this summary forms a part.

Introduction

Tamworth Region (NSW Department of Commerce) commissioned the Geotechnical and Environmental Unit (“Unit”) to undertake a Stage 1 Preliminary Environmental Site Investigation (“PESI”) for the proposed redevelopment (Manilla Combined MPS / Health One) within the existing Manilla Hospital complex, at Manilla, NSW, hereafter referred to as “Site”, in response to Unit’s proposal of 12 September 2008. The PESI will be undertaken generally in accordance with the NSW EPA *Guidelines for Consultants Reporting on Contaminated Sites* (1997). In the investigation, no sampling and analysis was conducted.

Objectives and Scope of Work

The objectives of the investigation were to:

- Identify any past and present potentially contaminating activities.
- Identify the potential contaminant types.
- Discuss the site conditions.
- Provide a preliminary assessment of site contamination.
- Assess the need for further investigation.

The scope of work for the investigation is summarised below.

- Conduct a site inspection/interview.
- Obtain information on geology and hydrogeology.
- Review the planning certificates under Section 149 of the Environmental Planning and Assessment Act 1979.
- Review records from a dangerous goods search conducted by WorkCover NSW.
- Review title information from a land title search of the NSW Department of Lands’ records.
- Review available historical aerial photographs provided for viewing by the NSW Department of Lands.
- Review the registered groundwater bore information from a groundwater bore search of the Department of Natural Resources website database.

- Presentation of data, preliminary assessment, conclusion and recommendations.

Summary of Investigation Results and Site Characteristics

Site History

A review of the Section 149 Planning Certificate and under the Manilla Local Environmental Plan, 1988, the land concerned (including the Site) is zoned *2(V) (Residential Village or Urban Zone)*. There are no matters arising under the Contaminated Land Management Act 1997, for the subject land.

A search of the NSW Department of Environment and Climate Change (NSW DECC) website indicated that there are no notices or licenses under the Protection of the Environment Operations Act 1997 for the Site. Also, there are no declarations or orders under the Contaminated Land Management Act 1997.

WorkCover advised that a search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover has not located any records pertaining to the premises (hospital site).

Based on the title search information, the Site lies mainly within the land previously identified as Lot 206 DP 752191 (now part of Lot 14 DP 752191). A small part of the Site lies within the land previously identified as Lot 1 DP 701637 (now part of Lot 13 DP 814059). The land has been owned by The Manilla District Hospital since 1908/1934. Prior 1908/1934, the land was Crown Land. Lot 13 DP 814059 has been leased to Manilla Council since 1992, and the lease will expire in 2051.

A review of the available aerial photographs (years 1966, 1975, 1978, 1991, 1997 and 2006) indicated that the features within the hospital site are generally similar to that of the present day. Residential properties have progressively increased over the years, in the areas on the western and southern sides of the hospital site.

A review of five (5) old plans (years 1919, 1938, 1950, 1963 and 1969) indicated that two former old buildings (staff quarters/store/isolation room and garage) used to be located immediately on the northern side of Acacia Wing, which is part of the existing main building. A former old workshop building used to be located at the western end of the existing workshop building. A former old building (morgue) and a former old incinerator used to be located in the vicinity of the eastern end of the existing workshop building. The existing nurses quarters building and the administration block were apparently built in the 1950s.

A brief site interview with Noel Nelson (maintenance supervisor) indicated that the fill materials forming the steep batter at the rear (north) of the hospital site could be partly imported. Waste generated from the hospital site was disposed offsite in a landfill. No waste was buried within the site. The existing workshop building is likely to be on fill.

Site Inspection

Observations from the site inspection (21.11.08) by a senior engineer from the Unit are briefly summarised below:

- The existing main building is located within the middle and southern parts of the hospital site, bordered by a steep batter (partly covered with dense vegetation) along the northern boundary. The upper portion of the batter appears to comprise fill (upgradient of the existing steel wire fence).
- An underground fuel storage tank (UST) is located next to the coal bin and its use was associated with the boiler. Details of the UST (such as configuration, connecting fuel pipelines, history, etc) were not made available to the Unit.
- The eastern part of the hospital site (next to the fill batter) is generally grass covered.
- A number of fibrous fragments mixed with demolition debris were scattered inside the subfloor of part (physiotherapy) of the main hospital building.
- Fibrous fragments were observed on the surface of fill batter, in the vicinity of the mortuary/coal bin and on the northern side of the access road.

Potential Environmental Concern

Based on the historical information and site observations, the identified area of potential environmental concern within the Site (proposed redevelopment area) is as follows:

- In former improvements within the Site over the years, some fill materials could have been imported into the hospital complex. There is potential that the imported fill materials could contain the following contaminants :
 - a) Heavy metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury).
 - b) Total Petroleum Hydrocarbons (TPH).
 - c) Benzene, Toluene, Ethylbenzene and Total Xylene (BTEX).
 - d) Polycyclic Aromatic Hydrocarbons (PAH).
 - e) Organochlorine Pesticides (OCs).
 - f) Polychlorinated Biphenyls (PCBs).
 - g) Phenols.
 - h) Asbestos.

Many of the organic components of the pesticides are not persistent and are likely to decompose in soil say within one year of application. Only the persistent OCs are of concern.

- There is potential of heavy metals and PAH contamination as a result of possible spreading of ash from the coal boiler.
- There is potential for petroleum hydrocarbon (TPH, BTEX and PAH) and lead (Pb) contamination as a result of the old UST possibly leaking.
- There is potential for OCs, arsenic (As) and Pb contamination of surface soil around and in the sub-floor of buildings/sheds, resulting from pest control.
- Zinc (Zn) contamination of surface soil is common surrounding galvanised iron sheds, associated with carports, garages, etc.
- Lead (Pb) contamination of surface soil is possible if the nearby features were painted with lead based paints.
- Asbestos containing debris could be buried in the surface soil subsequent to the demolition of former old buildings (likely to contain asbestos containing material). The debris could also have been used to form part of the fill batter. It should be noted that asbestos cement fragments were scattered throughout the sub floor area of physiotherapy part and Acacia Wing of the main hospital building. Also, in the separate geotechnical investigation, fibrous fragments (likely to contain asbestos) were observed on the surface of fill batter in the vicinity of the mortuary/coal bin.

Conclusion and Recommendations

Based on the findings from the current Stage 1 Preliminary Environmental Site Investigation of the proposed redevelopment area within the hospital complex, there is potential the area could be contaminated.

It is recommended that a further Stage 2 Detailed Environmental Site Investigation (“DESI”) is to be undertaken, in accordance with the NSW EPA *Guidelines for Consultants Reporting on Contaminated Sites* (1997). Objectives of the DESI are to define the extent and degree of contamination, to assess potential risk posed by contaminants to health and the environment, and to obtain sufficient information for the development of a remedial action plan (if required).

2 INTRODUCTION

2.1 General

Tamworth Region (NSW Department of Commerce) commissioned the Geotechnical and Environmental Unit (“Unit”) to undertake a Stage 1 Preliminary Environmental Site Investigation (“PESI”) for the proposed redevelopment (Manilla Combined MPS / Health One) within the existing Manilla Hospital complex, at Manilla, NSW, hereafter referred to as “Site”, in response to Unit’s proposal of 12 September 2008.

The PESI will be undertaken generally in accordance with the NSW EPA *Guidelines for Consultants Reporting on Contaminated Sites* (1997). In the investigation, no sampling and analysis was conducted.

For the purpose of the current investigation, Lismore Region provided the following documents about the hospital site:

- a) “*Manilla District Hospital, Court Street, Manilla – Proposed New Facilities – Geotechnical Investigation*” (September 2007), prepared by Network Geotechnics P/L based in Tuggerah. This report was forwarded by Hunter Geotechnics P/L (based in Singleton) to Commerce’s Regional Office based in Dangar.
- b) “*Hazardous Materials Survey – Manilla Hospital Site, Manilla NSW*” (September 2007), prepared by HLA-Envirosciences P/L for Commerce’s Regional Office based in Dangar.
- c) “General Ground Layout Plan” ((Drg No: SK1200, dated August 2008), prepared by Rice Daubney (architect) based in North Sydney.
- d) “Plan of Selected Detail and Levels over Portions of Lots 13, 14 DP 814059” (Drg No: 1384C0102, dated Sept 2008), prepared by Brown & Krippners P/L based in Tamworth.

Tamworth Region has separately commissioned a Geotechnical Investigation for the proposed hospital redevelopment. The geotechnical investigation is managed by a senior engineer from the Unit, and is currently still in progress.

2.2 Objectives

The objectives of the investigation were to:

- Identify any past and present potentially contaminating activities.
- Identify the potential contaminant types.
- Discuss the site conditions.
- Provide a preliminary assessment of site contamination.
- Assess the need for further investigation.

2.3 Scope of Work

The scope of work for the investigation is summarised below.

- Conduct a site inspection/interview.
- Obtain information on geology and hydrogeology.
- Review the planning certificates under Section 149 of the Environmental Planning and Assessment Act 1979.
- Review records from a dangerous goods search conducted by WorkCover NSW.
- Review title information from a land title search of the NSW Department of Lands' records.
- Review available historical aerial photographs provided for viewing by the NSW Department of Lands.
- Review the registered groundwater bore information from a groundwater bore search of the Department of Natural Resources website database.
- Presentation of data, preliminary assessment, conclusion and recommendations.

2.4 Proposed Development

Based on the Geotechnical and Environmental Investigation Brief, it is understood that the proposed redevelopment comprises construction of new single storey buildings, carpark and roadworks. The existing buildings will be demolished in stages and replaced by the new buildings. All existing footings will be excavated and disposed offsite.

On 27.10.08, the Region provided a site plan (Drg No: SK1200, dated Aug 2008) and a site survey plan (Drg No: 1384C0102, dated Sept 2008). The site plan was prepared by Rice Daubney (architect), and the survey plan by Brown & Krippner P/L.

The site plan is presented on **Figure 2**. The survey plan is presented in **Figure 3**.

2.5 Limitations

The Geotechnical and Environmental Unit has conducted an assessment and prepared this report in response to specific instructions from the client to whom this report is addressed. The assessment was conducted relying on data and information made available to the Unit. The analyses, assessments and conclusion/recommendations presented in this report are based on that information, and they could change if the information is in fact inaccurate or incomplete.

This report is intended for the sole use of the client, and only for the purpose which it was prepared. Any third party who relies on the report or any representation contained in it does so at their own risk.

3 SITE IDENTIFICATION

The hospital is located in Manilla, approximately 50 km north of the city of Tamworth. The Site is within the Local Government Area of Tamworth, Regional Parish of Manilla, and County of Darling. The hospital site is situated at the north-eastern end of Manilla, near the eastern end of Court Street. The Namoi River occurs at a short distance towards the north.

The property identification of the Site (proposed redevelopment area) is part of Lots 13 and 14 DP 814059. The Site lies mainly within Lot 14 DP 814059.

4 SITE HISTORY

A review of the site history included the following information sources :

- Section 149 Planning Certificates.
- NSW DECC Records.
- NSW WorkCover's records.
- Land title records.
- Historical aerial photographs.
- Interview information.
- Other information.

4.1 Section 149 Planning Certificates

Pursuant to Section 149(2) of the Environmental Planning and Assessment Act 1979 ("Act") and under the Manilla Local Environmental Plan, 1988, the land concerned (including the Site) is zoned **2(V) (Residential Village or Urban Zone)**.

A review of the Certificates indicated that:

- The land has not been proclaimed to be in a mine subsidence district.
- Council has not been notified by any other public authority that it requires Council to notify of a policy it has adopted which restricts the development of the land because of a hazard or risk.
- Council has not adopted a policy to restrict the development of the land by reason of the likelihood of landslip, bushfire, flooding, tidal inundation, subsidence or any other risk.
- There are no matters arising under the Contaminated Land Management Act 1997, for the subject land.
- The subject land is not identified as being "bushfire prone land" on the Bushfire Prone Land Map, certified by the NSW Rural Fire Service.

The Planning Certificates are presented in **Appendix A**.

4.2 NSW DECC Records

A search of the NSW Department of Environment and Climate Change (NSW DECC) website indicated that there are no notices or licenses under the Protection of the Environment Operations Act 1997 for the Site. Also, there are no declarations or orders under the Contaminated Land Management Act 1997.

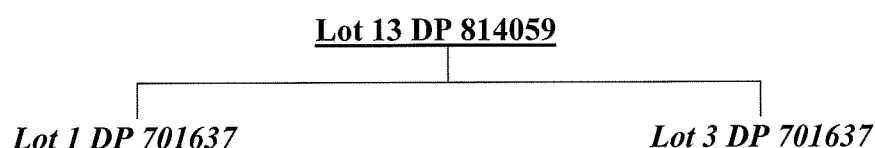
4.3 NSW WorkCover Records

NSW Department of Commerce requested WorkCover NSW to conduct a search for license to keep Dangerous Goods. In a letter (dated 11 November 2008), WorkCover advised that a search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover has not located any records pertaining to the premises (hospital site).

WorkCover's letter is presented in **Appendix B**.

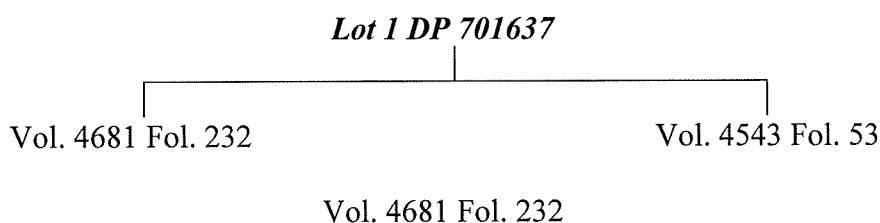
4.4 Land Title Records

A land title search was conducted by Environmental Management Group P/L for the Site, identified as part of Lots 13 and 14 DP 814059. A summary of historical proprietors is as follows :



Lot 13 DP 814059

Year	Proprietor	Source
1984 – To date	The Manilla District Hospital	Current Certificate of Title Vol. 4766 Fol. 97 Vol. 4681 Fol. 232 Vol. 4543 Fol. 53 Transfer V290565



Year	Proprietor	Source
1934 – 1984	The Manilla District Hospital	Vol. 4681 Fol. 232
Prior to 1934	Crown Land	Vol. 4681 Fol. 232

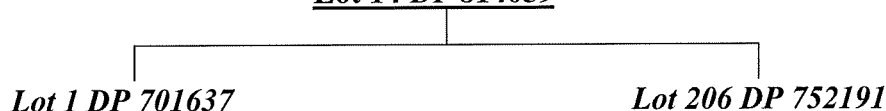
Vol. 4543 Fol. 53

Year	Proprietor	Source
1908 – 1984	The Manilla District Hospital	Vol. 4543 Fol. 53
Prior to 1908	Crown Land	Vol. 4543 Fol. 53

Lot 3 DP 701637

Year	Proprietor	Source
1981 - 1984	The Council of The Shire of Manilla	Vol. 4766 Fol. 97
1933 – 1981	The Minister for Public Works of The State of New South Wales	Vol. 2901 Fol. 50
1910 – 1933	Mary Jane Veness & Arthur Thomas Veness,	Vol. 2062 Fol. 103
1909 - 1910	George Albert Veness (Livery Stable Proprietor), Arthur Thomas Veness (Farmer) & Mary Jane Veness	Vol. 2026 Fol. 95
1899 - 1909	Edward Veness	Vol. 1298 Fol. 120

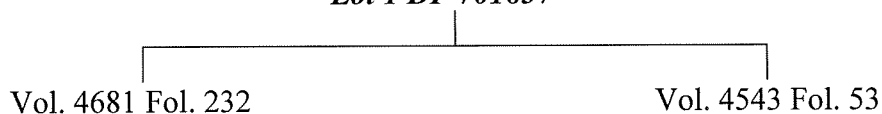
Lot 14 DP 814059



Lot 14 DP 814059

Year	Proprietor	Source
1984 – To date	The Manilla District Hospital	Current Certificate of Title Vol. 15204 Fol. 249 Vol. 4681 Fol. 232 Vol. 4543 Fol. 53

Lot 1 DP 701637



Vol. 4681 Fol. 232

Year	Proprietor	Source
1934 – 1984	The Manilla District Hospital	Vol. 4681 Fol. 232
Prior to 1934	Crown Land	Vol. 4681 Fol. 232

Vol. 4543 Fol. 53

Year	Proprietor	Source
1908 – 1984	The Manilla District Hospital	Vol. 4543 Fol. 53
Prior to 1908	Crown Land	Vol. 4543 Fol. 53

Lot 206 DP 752191

Year	Proprietor	Source
1908 – 1984	The Manilla District Hospital	Vol. 15204 Fol. 249
Prior to 1908	Crown Land	Vol. 4543 Fol. 53

SUMMARY OF LEASE

Lot 13 DP 814059

Lessee	Source
Leased to The Council of the Shire of Manilla for the conduct of a hostel living unit or nursing home for the accommodation and care of elderly or infirm people and for purposes reasonably incidental thereto to the satisfaction of the minister or use such premises for residential purposes whether temporary or permanent. Commenced 1/1/1992, Expired 31/12/2051	Lease E930876

Based on the title search information, the Site lies mainly within the land previously identified as Lot 206 DP 752191 (now part of Lot 14 DP 752191). A small part of the Site lies within the land previously identified as Lot 1 DP 701637 (now part of Lot 13 DP 814059). The land has been owned by The Manilla District Hospital since 1908/1934. Prior 1908/1934, the land was Crown Land. Lot 13 DP 814059 has been leased to Manilla Council since 1992, and the lease will expire on 2051.

Copies of the Certificates of Title are presented in **Appendix C**.

4.5 Aerial Photographs

A review of available historical aerial photographs was conducted in the Sydney office of the NSW Department of Lands for the years 1966, 1975, 1978, 1991, 1997 and 2006. Enlarged sections of the aerial photographs are presented in **Appendix D**.

The observations from the aerial photographs are summarised below:

- All of photographs appear to show that the features within the hospital site are generally similar to that of the present day.
- The 1966 photograph shows that the hospital site is immediately surrounded by open space. Residential properties occur at a short distance towards the west. It appears that the existing building/water tower (partly obscured by vegetation) associated with the existing water treatment plant, occurs on the southern side of the site.
- The later photographs show residential properties have progressively increased over the years, in the areas on the western and southern sides of the hospital site.

- The 1997 photograph shows that the existing hostel occurs immediately on the south-eastern side of the hospital site. The 2006 photograph shows that construction of residential houses immediately on the eastern side of the site is in progress.

A review of the above aerial photographs indicated that the features within the hospital site are generally similar to that of the present day. Residential properties have progressively increased over the years, in the areas on the western and southern sides of the hospital site.

4.6 Old Plans

A review of five (5) old plans (years 1919, 1938, 1950, 1963 and 1969), provided by Commerce's Plan Room, indicated :

- Two former old buildings (staff quarters/store/isolation room and garage) used to be located immediately on the northern side of Acacia Wing, which is part of the existing main building.
- A former old workshop building used to be located at the western end of the existing workshop building.
- A former old building (morgue) and a former old incinerator used to be located in the vicinity of the eastern end of the existing workshop building.
- The existing nurses quarters building and the administration block were apparently built in the 1950s.
- The original part of the existing main building was constructed prior to the 1930s.

The old plans are presented in **Appendix E**.

4.7 Interview Information

On 21.11.08 a site inspection of the proposed redevelopment area was conducted by a senior engineer from the Unit. During the site inspection, a brief site interview with Noel Nelson (maintenance supervisor) indicated that :

- The fill materials forming the steep batter at the rear (northern end) of the hospital site could be partly imported.
- Waste generated from the hospital site was disposed offsite in a landfill. No waste was buried within the site.
- The existing workshop building is likely to be on fill.

Noel has been with the hospital for approximately eight years.

4.8 Other Information

The Tamworth Region provided two existing assessment/survey reports about the hospital site:

- a) *“Manilla District Hospital, Court Street, Manilla – Proposed New Facilities – Geotechnical Investigation”* (September 2007), prepared by Network Geotechnics P/L based in Tuggerah. This report was forwarded by Hunter Geotechnics P/L (based in Singleton) to Commerce’s Regional Office based in Dangar.
- b) *“Hazardous Materials Survey – Manilla Hospital Site, Manilla NSW”* (September 2007), prepared by HLA-Envirosciences P/L for Commerce’s Regional Office based in Dangar.

Network Geotechnics’ Report (a)

The Network Geotechnics’ report indicated that nine (9) test pits (TP1 to TP9) were excavated within the hospital site to depths ranging from 1.5m to 3.0m. Six (6) soil samples were collected and analysed in laboratory (East West Enviroag) for the parameters listed below:

Test Pit	Depth (m)	Material Origin	Parameters Analysed
TP2	0.7-0.9	Fill/Alluvial	Heavy metals
TP3	0.2-0.4	Fill	Heavy metals, phenol, OCs, PCB, and PAHs
TP5	0.8-0.9	Fill	Heavy metals, phenol, OCs, PCB and PAHs
	0.9-2.2	Fill	Heavy metals
TP6	0.2-0.4	Fill	Heavy metals, phenol, OCs, PCB and PAHs
	0.4-1.5	Fill	Heavy metals

Also, the report indicated that a piece of “fibrous materials” was collected and identified in the laboratory to contain asbestos (chrysotile). However, the report did not show the location where the “fibrous materials” was collected.

HLA-Envirosciences’ Report (b)

HLA-Envirosciences’ report indicated that a “combination of presumed AC fragments and SMF debris” was scattered throughout the sub floor area of physiotherapy part of the main hospital building. Also, “presumed AC fragments” were scattered throughout the sub floor area of Acacia Wing of the main hospital building.

For further details, the reader should refer to the above two reports.

5 SITE CONDITIONS AND SURROUNDING ENVIRONMENT

5.1 Zoning and Current Land Use

The Site is zoned 2(V) (*Residential Village or Urban Zone*). The Site (proposed development area) currently forms part of the Manilla Hospital complex.

5.2 Topography and Drainage

The site survey plan is shown on **Figure 3**.

The part of the hospital site occupied by the existing buildings generally slopes gently towards the north and east, bordered by steep fill batter along the northern boundary.

Surface water is expected to flow generally towards the north (residential properties) and east (Kanangra Road). There was no obvious evidence of a stormwater drain along the northern site boundary to intercept any stormwater entering into the residential properties.

5.3 Site Inspection

Observations from the site inspection (21.11.08) by a senior engineer from the Unit are briefly summarised as follows :

- The existing main building is located within the middle and southern parts of the hospital site, bordered by a steep batter (partly covered with dense vegetation) along the northern boundary (see **Plate 2**). The upper portion of the batter appears to comprise fill (upgradient of the existing steel wire fence). Access to the main building is from the Court Street (see **Plate 1**).
- An underground fuel storage tank (UST) is located next to the coal bin (see **Plates 3 and 4**) and its use was associated with the boiler. Details of the UST (such as configuration, connecting fuel pipelines, history, etc) were not made available to the Unit.
- The eastern part of the hospital site (next to the fill batter) is generally grass covered (see **Plate 5**).
- A number of fibrous fragments mixed with demolition debris were scattered inside the subfloor of part (physiotherapy) of the main hospital building (see **Plate 6**).
- Fibrous fragments were observed on the surface of fill batter in the vicinity of the mortuary/coal bin and on the northern side of the access road.

5.4 Surrounding Land Use

The Site is currently surrounded by the following environment :

North	=	Residential
East	=	Kanangra Road / open space / residential properties
South	=	Court Street / hostel / Manilla Water Treatment Plant
West	=	Residential

Neighbouring premises are considered unlikely to pose a significant pollution risk to the Site.

5.5 Local Sensitive Environment

The closest identified sensitive receptor is Namoi River, which is located at a short distance towards the north and down gradient of the hospital site.

6 GEOLOGY AND HYDROGEOLOGY

6.1 Geology

The Manilla - Narrabri 1:250,000 Metallogenic Series Sheet SH/56-9 – SH/55-12 (1st Edition, 1992) shows that the Site is underlain by the Lowana Formation, which is part of the Parry Group. The formation comprises green-black siltstone and mudstone with thin, white tuffaceous beds, and is Late Devonian in age.

The separate geotechnical investigation (see **Section 2.1**) revealed that the subsurface profile within the hospital complex generally comprises a layer of fill (0.15m to 0.8m thick) underlain by natural soil and weathered sandstone. Borehole drilling near the crest of the steep batter (at the rear of the hospital site) revealed a layer of uncontrolled fill varying from 1.2m to 2.6m thick. The type of uncontrolled fill is variable and comprises sandy silty clay/gravelly sandy clay/silty sand/gravel in clayey silt matrix with some furnace refuse (ash and burnt coal). The phase 1 fieldwork of the geotechnical investigation comprised drilling of twelve (12) boreholes to depths of 1.3m to 4.7m.

Draft borehole logs from the separate geotechnical investigation are presented in **Appendix G**.

6.2 Hydrogeology

A search was carried of the Department of Natural Resources (DNR) database for groundwater bores in the vicinity of the hospital complex. The search identified four (4) registered bores.

The identified registered bores are summarised below:

Bore ID	Depth of Drilling (m bgs)	Standing Water Level, SWL (m bgs)	Approximate Distance from Site (km)	Authorised Purpose	Intended Purpose
GW060682	76	NR	0.1 W	Domestic	Domestic
GW902357	79.2	NR	0.3 NW/W	Domestic Stock	Domestic Stock
GW058536	61	NR	0.15 S	NR	Not Known
GW021704	10.7	7	0.5 NE	Domestic Stock	Domestic Stock

NOTE: NR = Not Recorded bgs = below ground surface

A summary of the groundwater bore data and a bore location plan are included in **Appendix F**.

7 POTENTIAL ENVIRONMENTAL CONCERN

Based on the historical information and site observations, the identified area of potential environmental concern within the Site (proposed redevelopment area) is as follows :

- In former improvements within the Site over the years, some fill materials could have been imported into the hospital complex. There is potential that the imported fill materials could contain the following contaminants :
 - i) Heavy metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury).
 - j) Total Petroleum Hydrocarbons (TPH).
 - k) Benzene, Toluene, Ethylbenzene and Total Xylene (BTEX).
 - l) Polycyclic Aromatic Hydrocarbons (PAH).
 - m) Organochlorine Pesticides (OCs).
 - n) Polychlorinated Biphenyls (PCBs).
 - o) Phenols.
 - p) Asbestos.

Many of the organic components of the pesticides are not persistent and are likely to decompose in soil say within one year of application. Only the persistent OCs are of concern.

- There is potential of heavy metals and PAH contamination as a result of possible spreading of ash from the coal boiler.
- There is potential for petroleum hydrocarbon (TPH, BTEX and PAH) and lead (Pb) contamination as a result of the old UST possibly leaking.
- There is potential for OCs, arsenic (As) and Pb contamination of surface soil around and in the sub-floor of buildings/sheds, resulting from pest control.
- Zinc (Zn) contamination of surface soil is common surrounding galvanised iron sheds, associated with carports, garages, etc.
- Lead (Pb) contamination of surface soil is possible if the nearby features were painted with lead based paints.
- Asbestos containing debris could be buried in the surface soil subsequent to the demolition of former old buildings (likely to contain asbestos containing material). The debris could also have been used to form part of the fill batter. It should be noted that asbestos cement fragments were scattered throughout the sub floor area of physiotherapy part and Acacia Wing of the main hospital building. Also, in the separate geotechnical investigation, fibrous fragments (likely to contain asbestos) were observed on the surface of fill batter in the vicinity of the mortuary/coal bin.

8 CONCLUSION AND RECOMMENDATIONS

Based on the findings from the current Stage 1 Preliminary Environmental Site Investigation of the proposed redevelopment area within the hospital complex, there is potential the area could be contaminated.

It is recommended that a further Stage 2 Detailed Environmental Site Investigation (“DESI”) is to be undertaken, in accordance with the NSW EPA *Guidelines for Consultants Reporting on Contaminated Sites* (1997). Objectives of the DESI are to define the extent and degree of contamination, to assess potential risk posed by contaminants to health and the environment, and to obtain sufficient information for the development of a remedial action plan if required.

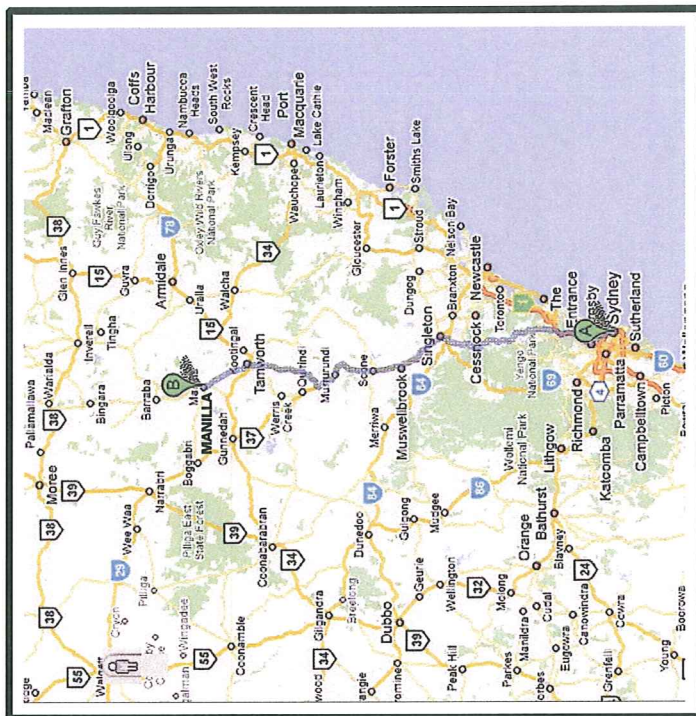
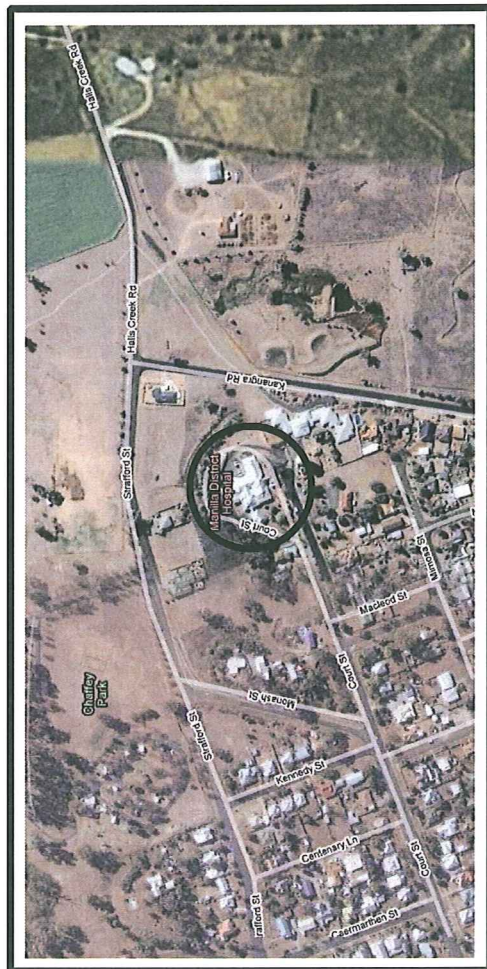
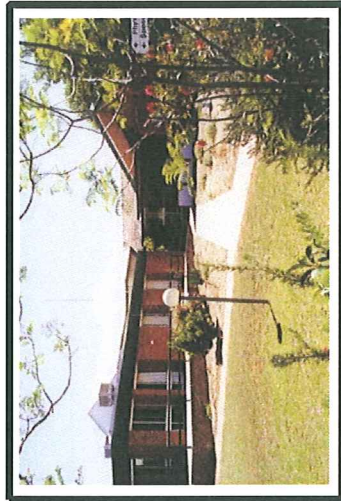
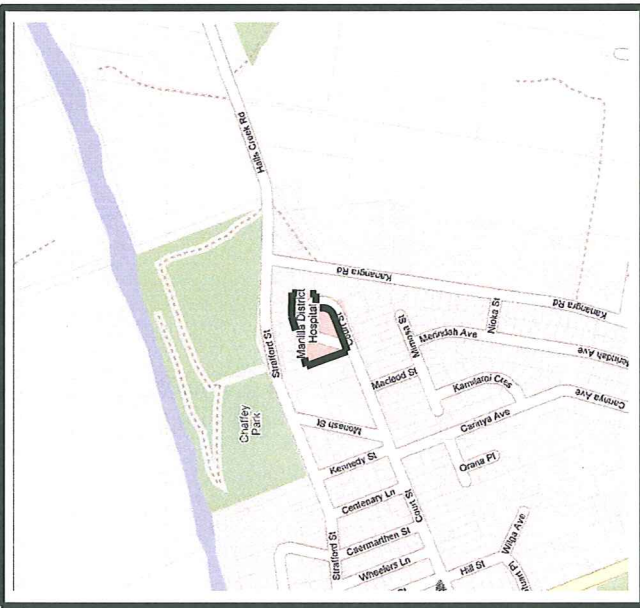
9 REFERENCES

NEPC, 1999. National Environment Protection (Assessment of Site Contamination) Measure 1999. **National Environment Protection Council, 1999.**

DEC, 2006. Guidelines for the NSW Site Auditor Scheme. **NSW Environment Protection Authority, 2006.**

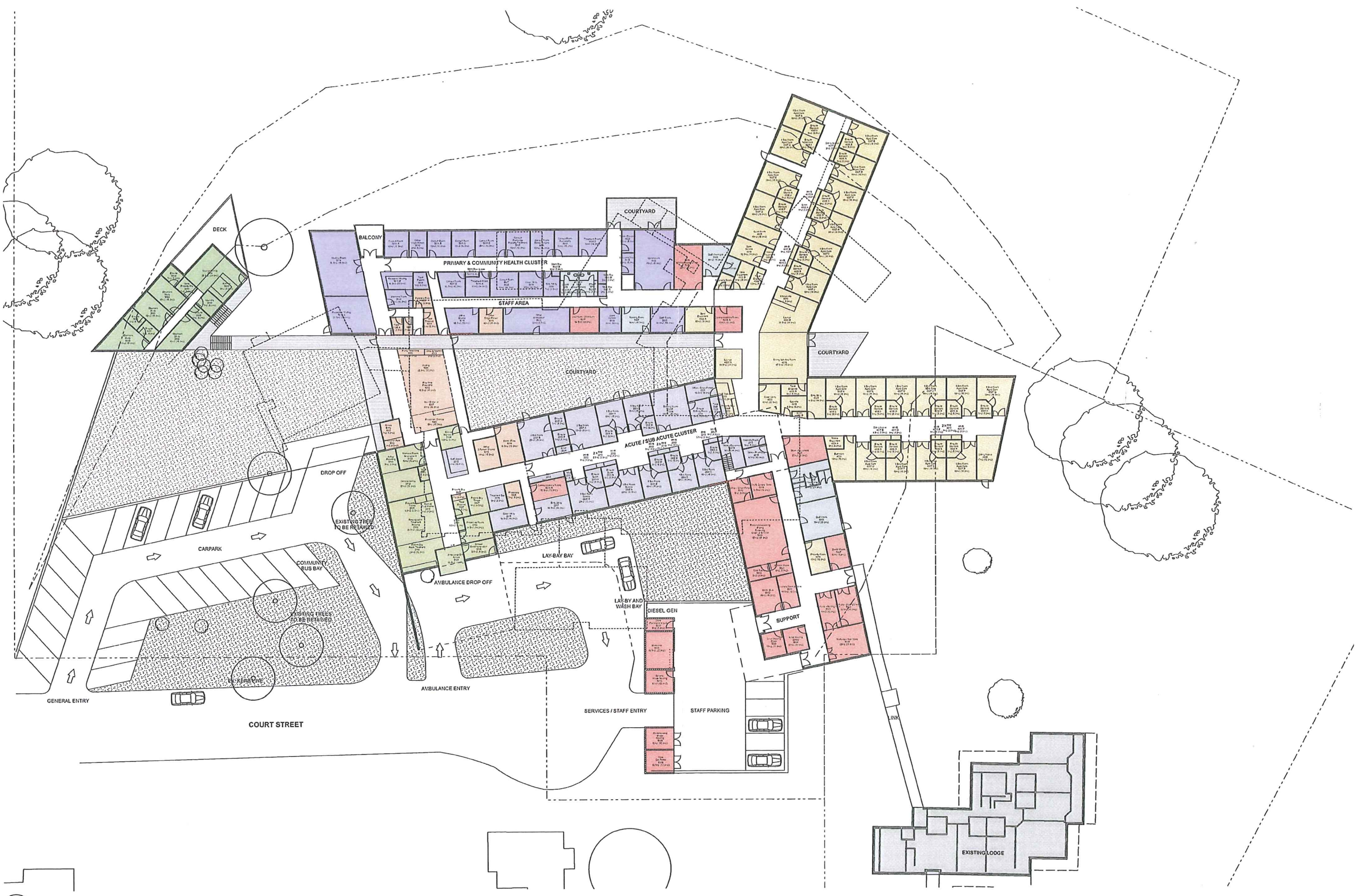
NSW EPA, 1997. Guidelines for Consultants Reporting on Contaminated Sites. **NSW Environment Protection Authority, 1997.**

FIGURES



MANILLA IS LOCATED APPROXIMATELY 443 Km NORTH OF SYDNEY

MANILLA HOSPITAL Site Location Plan	FILE No. G037/B	FIGURE No. 1
 NSW Department of Commerce	PROJECT ENGINEER SUPERVISOR GRANTLEY LEEDHARDS CHECKED DECEMBER 2008	GEOTECHNICAL AND ENVIRONMENTAL GEORGE HEAD Director General - 10101 Department of Commerce NEW SOUTH WALES WATER SOLUTIONS AND WATER TECHNOLOGIES LEVEL 11, MARILL BUILDING 2-24 MARION PLACE SYDNEY 2000 PHONE (02) 85727273 FAX (02) 85727267



STATES \$TIMES \$FILES

STATES \$TIMES \$FILES

A ISSUED FOR TENDER			
HK	DETAILS OF AMENDMENTS	APPROVED	DATE

GRAEME HEAD
 Director General - NSW Department of Commerce
 NEW SOUTH WALES WATER SOLUTIONS
 DAMS AND CIVIL TECHNOLOGIES
 LEVEL 136, MACELL BUILDING
 2-74 RAMSON PLACE
 SYDNEY 2000
 PHONE (02) 93727868 FAX (02) 93727877

GEOTECHNICAL
 &
 ENVIRONMENTAL
 ENGINEERING

PROJECT ENGINEER	P. SHAN
SUPERVISOR	
DRAWN	
CHECKED	DECEMBER 2000



MANILLA HOSPITAL
 Site Plan

FILE NO.	GO37B
DRAWING NO.	2

\$FILES

PLATES



PLATE 1 : View towards the north-east of the hospital site, showing the existing access road leading to the main hospital building. Court Road in on the far right.



PLATE 2 : View towards the south-east of the hospital site, showing part (physiotherapy/mortuary) of the main hospital building. Steep fill batter is on the left.



PLATE 3 : View towards the south of the hospital site. Coal bin associated with the boiler house is on the far side. An underground fuel storage tank (barely visible) is located next to the right corner of the coal bin. A stockpile of coal is in the near side. Workshop is on the left.



PLATE 4 : A close up view of the underground fuel storage tank with the lid open, next to coal bin.



PLATE 5 : View towards the north-west of the hospital site, showing the Acacia Wing of the main hospital building in on the far left. A steep fill batter in on the right (far side).



PLATE 6 : Part view of a number of fibrous fragments nixed with demolition debris inside the subfloor of part (physiotherapy) of the main hospital building.

APPENDIX A
Section 149 Planning Certificates

Certificate No: PC0728/2009
Receipt No: 325228
Date: 27 November 2008
Applicants Ref: G037B

**PLANNING CERTIFICATE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**

Applicant:

P Shun
Level 13e Mckell Building 2-24 Rawson Place
SYDNEY NSW 2000

Owner (as recorded by Council):

Manilla Health Service
PO Box 74
MANILLA NSW 2346

Land: Manillae Lodge 5 Kanangra Road MANILLA NSW 2346
Lot 13 DP 814059

This certificate is provided pursuant to Section 149(2) of the Act. At the date of this certificate, the subject land is affected by the following matters.

Zoning and land use under relevant LEPs

2(v) (Residential Village or Urban Zone)

Manilla Local Environmental Plan 1988, as amended.
The Plan was gazetted on 13 May, 1988.

1. The extract from the relevant local environmental plan is the development control table for the zone. It sets out the zone objectives and development which is allowed without development consent; development only allowed with development consent; and development which is prohibited; as it relates to the land the subject of this certificate.
2. The relevant local environmental plan identifies certain land upon which heritage items or archaeological sites are situated. A specific clause of the Plan requires Council take into consideration the likely affect of any development on the heritage significance of any items in the locality.
3. The erection of a dwelling-house may be prohibited by a development standard relating to a minimum area of land. See the attached extract from the local environmental plan relating to this matter.
4. No draft local environmental planning instruments apply to the subject land.

Names of relevant State Environmental Planning Policies

The following State Environmental Planning Policies apply to the subject land. Copies may be obtained from the NSW Government web-site.

5. State Environmental Planning Policy No. 1 - Development Standards.
6. State Environmental Planning Policy No. 4 - Development Without Consent and Miscellaneous Exempt & Complying Development.
7. State Environmental Planning Policy no. 6 - Number of Stories in a Building
8. State Environmental Planning Policy No. 15 - Rural Landsharing Communities
9. State Environmental Planning Policy No. 21 - Caravan Parks
10. State Environmental Planning Policy No. 22 - Shops and Commercial Premises
11. State Environmental Planning Policy No. 32 - Urban Consolidation (Redevelopment of Urban Land)
12. State Environmental Planning Policy No. 36 - Manufactured Home Estates
13. State Environmental Planning Policy No. 44 - Koala Habitat
14. State Environmental Planning Policy No.55 - Remediation of Land
15. State Environmental Planning Policy No. 60 - Exempt & Complying Development
16. State Environmental Planning Policy No. 64 - Advertising and Signage

All correspondence should be addressed to the General Manager:

Telephone: 6767 5555
Facsimile: 6767 5499

PO Box 555 (DX 6125)
Tamworth NSW 2340

trc@tamworth.nsw.gov.au
www.tamworth.nsw.gov.au

17. State Environmental Planning Policy No. 65 - Design Quality of Residential Flat Development
18. State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
19. State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004
20. State Environmental Planning Policy (Infrastructure) 2007
21. State Environmental Planning Policy (Major Projects) 2005
22. State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
23. State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) 2007
24. Draft State Environmental Planning Policy – (Application of Development Standards) 2004

Names of relevant Regional Environmental Plans

25. The Council has not been notified of any regional environmental plans or draft regional environmental plans applying to the land.

Names of relevant Development Control Plans

26. Manilla Development Control Plan No. 3 – Outdoor Advertising Code.
27. Manilla Development Control Plan No. 5 – Residential Development Code.
28. Tamworth Regional Development Control Plan No.1 – Telecommunications and Radio-Communications.

Declared State significant development

29. Development to which State Environmental Planning Policy No. 34 – Major Employment Generating Development and State Environmental Planning Policy No. 48 - Major Putrescible Landfill Sites apply is State significant development.

Coastal Protection

30. The land is not affected by the operation of Section 38 or 39 of the Coastal Protection Act.

Mine subsidence

31. The land has not been proclaimed to be a mine subsidence district within the meaning of Section 15 of the Mine Subsidence Compensation Act 1961.

Road widening and road realignment

32. The land is not affected by any road widening or road realignment proposal under:-
 - (1) section 262 of the Local Government Act, 1919;
 - (2) an environmental planning instrument; or
 - (3) any resolution of Council.

Council and other public authority policies on hazard risk restrictions

33. Council has not been notified by any other public authority that it requires Council to notify of a policy it has adopted which restricts the development of the land because of a hazard or risk.
34. Council has not adopted a policy to restrict the development of the land by reason of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence or any other risk unless it has been identified within this certificate.

Land reserved for acquisition

35. There are no environmental planning instruments applying to the land which provide for the acquisition of the land by a public authority, as referred to in Section 27 of the Act.

Contributions plans

36. Manilla Shire Council Contributions Plan applies to the subject land.

Matters arising under the Contaminated Land Management Act 1997

37. Pursuant to Section 59(2) of the Contaminated Land Management Act 1997, the land to which this certificate relates is not -

- a) an investigation area or remediation site;
- b) subject to an investigation order or remediation order;
- c) subject to a voluntary investigation or remediation proposal; or
- d) the subject of a site audit statement.

Bushfire Prone Land

38. The subject land is not identified as being "bushfire prone land" on the Bushfire Prone Land Map, certified by the NSW Rural Fire Service.

Additional information provided pursuant to Section 149(5)

39. For information regarding buildings and structures on the land, please obtain a Building Certificate under Section 149A of the Environmental Planning and Assessment Act 1979.




Catherine Pyne
Team Leader Development Assessment

Zone No. 2(v) (Residential Village or Urban Zone)
Manilla Local Environmental Plan 1988

1 Objectives of zone

The objectives of this zone are:

- (a) to regulate the subdivision and use of land to permit a wide range of urban purposes, and
- (b) to recognise existing urban, commercial, industrial and open space areas within the zone and enable future development appropriate to their function.

2 Without development consent

Nil.

3 Only with development consent

Any purpose other than a purpose included in Item 4 or 5.

4 Advertised development—only with development consent

Residential flat buildings; caravan parks; clubs; hotels; motels.

5 Prohibited development

Extractive industries; intensive livestock keeping establishments; mines; offensive and hazardous industries.

Dwellings on vacant land
Manilla Local Environmental Plan 1988

19 Dwellings on vacant land

(1) A person shall not erect a dwelling on vacant land unless the land:

- (a) if in Zone No 1 (a):
 - (i) has a site area of 200 hectares or more,
 - (ii) comprises an allotment created under clause 16 for the purposes of a dwelling, or
 - (iii) comprises an allotment created in accordance with clause 15 or 17 and the use of that dwelling will be ancillary to the purpose for which the allotment was created, or
- (b) if in Zone No 2 (v), has a site area of 600 square metres or more in a sewered area or a site area of 800 square metres or more in an unsewered area.

(2) Notwithstanding sub clause (1), a person may erect a dwelling on vacant land which comprises:

- (a) an allotment created by a subdivision for which the consent of the Council was granted before the appointed day, or
- (b) the whole of a holding.

(3) Nothing in subclause (2) (b) prevents the Council from granting consent for the erection of a dwelling if the area of the holding has been affected only by a subdivision created for a purpose for which the consent of the Council is not required under any State environmental planning policy or regional environmental plan which applies to the land to which this plan applies.

Certificate No: PC0727/2009
Receipt No: 325228
Date: 27 November 2008
Applicants Ref: G037B

**PLANNING CERTIFICATE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**

Applicant: **Owner (as recorded by Council):**

P Shun
Level 13e Mckell Building 2-24 Rawson Place
SYDNEY NSW 2000

Manilla Health Service
PO Box 74
MANILLA NSW 2346

Land: Manilla District Hospital Court Street MANILLA NSW 2346
Lot 14 DP 814059

This certificate is provided pursuant to Section 149(2) of the Act. At the date of this certificate, the subject land is affected by the following matters.

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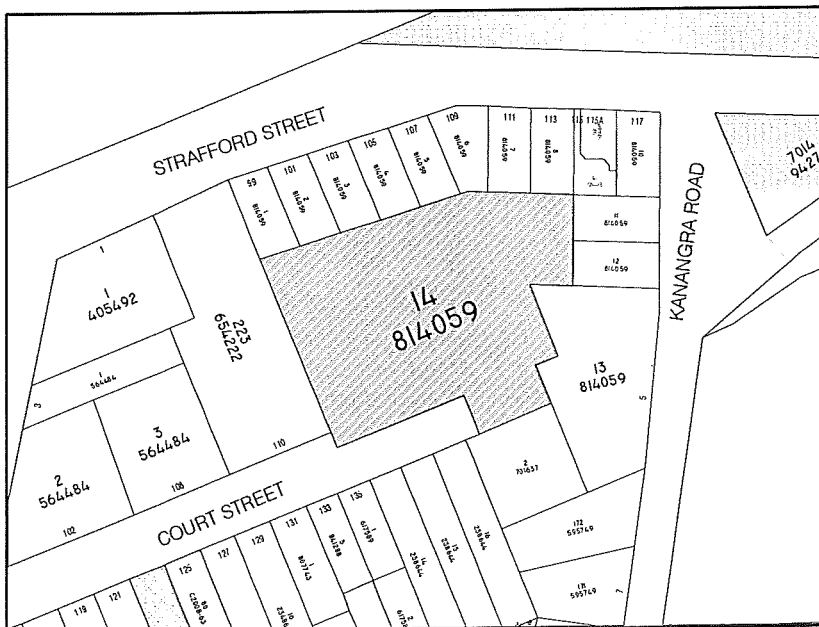
- a) an investigation area or remediation site;
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Additional information provided pursuant to Section 149(5)

39. For information regarding buildings and structures on the land, please obtain a Building Certificate under Section 149A of the Environmental Planning and Assessment Act 1979.



Catherine Pyne
Team Leader Development Assessment

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Manilla Local Environmental Plan 1988

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Manilla Local Environmental Plan 1988

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 - (iii) comprises an allotment created in accordance with clause 15 or 17 and the use of that dwelling will be ancillary to the purpose for which the allotment was created, or
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- (a) an allotment created by a subdivision for which the consent of the Council was granted before the appointed day, or
- (b) the whole of a holding.

(3) Nothing in subclause (2) (b) prevents the Council from granting consent for the erection of a dwelling if the area of the holding has been affected only by a subdivision created for a purpose for which the consent of the Council is not required under any State environmental planning policy or regional environmental plan which applies to the land to which this plan applies.

APPENDIX B

NSW WorkCover Records



Our Ref: D08/130679

Your Ref: Peter Shun

11 November 2008

Attention: Mr Shun
Department of Commerce
Level 13, McKell Building
2-24 Rawson Place
Sydney NSW 2000

Dear Mr Shun

RE SITE: Curt Street, Manilla NSW 2346

I refer to your site search request received by WorkCover NSW on 3rd November 2008, requesting information on licences to keep dangerous goods for the above site.

A search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover NSW has not located any records pertaining to the above-mentioned premises.

If you have any further queries please contact the Dangerous Goods Licensing Team on (02) 4321 5500.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M. A. Kidd'.

Michelle Kidd

**Senior Licensing Officer
Dangerous Goods Team**

WorkCover. **Watching out for you.**

WorkCover NSW ABN 77 682 742 966 92-100 Donnison Street Gosford NSW 2250 Locked Bag 2906 Lisarow NSW 2252
Telephone 02 4321 5000 Facsimile 02 4325 4145 WorkCover Assistance Service **13 10 50**
DX 731 Sydney Website www.workcover.nsw.gov.au

WC03116 0208

APPENDIX C

Land Title Records



Environmental Legal Searches

Environmental
Management
Group Pty Ltd

ACN 108 771 482
ABN 76 784 207 704

MOBILE: 0404 069 995
FAX: 02 - 8211 9179
EMAIL: search@elsearches.com.au
WEB: www.elsearches.com.au
ADDRESS: PO BOX 393 Kingsford NSW 2032

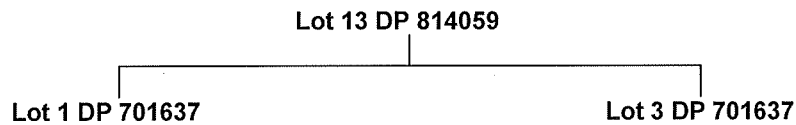
25 November 2008

Department of Commerce
Level 13
Mc Kell Building
2-24 Rawson Place
SYDNEY NSW 2000

Attention: Mr Peter Shun

RE: Lots 13 & 14 DP 814059
Court Street and Kanangra Road, Manilla
Your Ref. No: GO37B

SUMMARY OF PROPRIETORS



Lot 13 DP 814059

Year	Proprietor	Source
1984 – To date	The Manilla District Hospital	Current Certificate of Title Vol. 4766 Fol. 97 Vol. 4681 Fol. 232 Vol. 4543 Fol. 53 Transfer V290565

**Environmental Legal Searches**

Environmental
Management
Group Pty Ltd

ACN 108 771 482
ABN 76 784 207 704

MOBILE: 0404 069 995
FAX: 02 - 8211 9179
EMAIL: search@elsearches.com.au
WEB: www.elsearches.com.au
ADDRESS: PO BOX 393 Kingsford NSW 2032

Lot 1 DP 701637**Vol. 4681 Fol. 232****Vol. 4543 Fol. 53****Vol. 4681 Fol. 232**

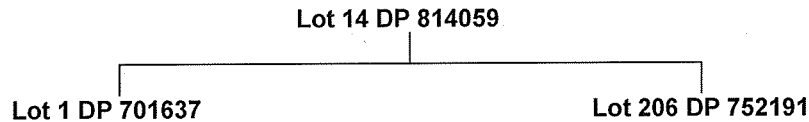
Year	Proprietor	Source
1934 – 1984	The Manilla District Hospital	Vol. 4681 Fol. 232
Prior to 1934	Crown Land	Vol. 4681 Fol. 232

Vol. 4543 Fol. 53

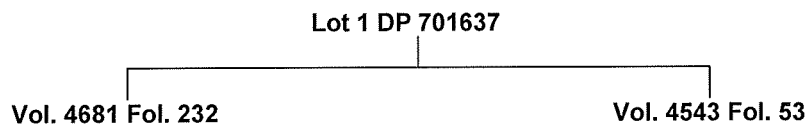
Year	Proprietor	Source
1908 – 1984	The Manilla District Hospital	Vol. 4543 Fol. 53
Prior to 1908	Crown Land	Vol. 4543 Fol. 53

Lot 3 DP 701637

Year	Proprietor	Source
1981 - 1984	The Council of The Shire of Manilla	Vol. 4766 Fol. 97
1933 – 1981	The Minister for Public Works of The State of New South Wales	Vol. 2901 Fol. 50
1910 – 1933	Mary Jane Veness & Arthur Thomas Veness,	Vol. 2062 Fol. 103
1909 - 1910	George Albert Veness (Livery Stable Proprietor), Arthur Thomas Veness (Farmer) & Mary Jane Veness	Vol. 2026 Fol. 95
1899 - 1909	Edward Veness	Vol. 1298 Fol. 120

**Environmental Legal Searches****Environmental
Management
Group Pty Ltd**ACN 108 771 482
ABN 76 784 207 704**MOBILE:** 0404 069 995
FAX: 02 - 8211 9179
EMAIL: search@elsearches.com.au
WEB: www.elsearches.com.au
ADDRESS: PO BOX 393 Kingsford NSW 2032**Lot 14 DP 814059**

Year	Proprietor	Source
1984 – To date	The Manilla District Hospital	Current Certificate of Title Vol. 15204 Fol. 249 Vol. 4681 Fol. 232 Vol. 4543 Fol. 53

**Vol. 4681 Fol. 232**

Year	Proprietor	Source
1934 – 1984	The Manilla District Hospital	Vol. 4681 Fol. 232
Prior to 1934	Crown Land	Vol. 4681 Fol. 232

Vol. 4543 Fol. 53

Year	Proprietor	Source
1908 – 1984	The Manilla District Hospital	Vol. 4543 Fol. 53
Prior to 1908	Crown Land	Vol. 4543 Fol. 53

Lot 206 DP 752191

Year	Proprietor	Source
1908 – 1984	The Manilla District Hospital	Vol. 15204 Fol. 249
Prior to 1908	Crown Land	Vol. 4543 Fol. 53

SUMMARY OF LEASE

Lot 13 DP 814059

Lessee	Source
Leased to The Council of the Shire of Manilla for the conduct of a hostel living unit or nursing home for the accommodation and care of elderly or infirm people and for purposes reasonably incidental thereto to the satisfaction of the minister or use such premises for residential purposes whether temporary or permanent. Commenced 1/1/1992, Expired 31/12/2051	Lease E930876

Terms of Conditions & Limitations

1. The client is responsible for payment associated with the search.
2. The client is authorised to use our report subject to settlement of our account. Until the account is settled, the report remains the property of Environmental Legal Searches. If the account is not settled within 30 days of the invoice date, then the authority to use the report may be revoked. Where authority to use the report is revoked, all references to the report should be deleted or rendered inactive until the account is settled.
3. Search was based on **Lots 13 & 14 DP 814059** provided by **Mr Peter Shun of Department of Commerce**. The attached cadastral plan and **Deposited Plan (DP 814059)** MUST be checked against the survey plan for the property for correctness.
4. The details of the leases (if applicable) were solely based on the available records of the Department of Lands. The MOST RECENT record may not be available on the day of the searching.



LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 13/814059

SEARCH DATE	TIME	EDITION NO	DATE
31/10/2008	2:12 AM	3	6/4/1994

LAND

LOT 13 IN DEPOSITED PLAN 814059
AT MANILLA
LOCAL GOVERNMENT AREA TAMWORTH REGIONAL
PARISH OF MANILLA COUNTY OF DARLING
TITLE DIAGRAM DP814059

FIRST SCHEDULE

THE MANILLA DISTRICT HOSPITAL

SECOND SCHEDULE (5 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS -SEE CROWN GRANT
- 2 LAND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN WITHIN THE PART SHOWN SO INDICATED IN THE TITLE DIAGRAM-SEE CROWN GRANT
- 3 EASEMENT(S) AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM CREATED BY:
 - C424746 -EASEMENT FOR RISING MAIN & OVERFLOW PIPE
 - DP814059 -EASEMENT FOR RISING MAIN & OVERFLOW PIPE 5 WIDE
 - DP814059 -EASEMENT FOR OVERFLOW PIPE 3 WIDE
- 4 EASEMENT(S) APPURTENANT TO THE LAND ABOVE DESCRIBED CREATED BY:
 - DP814059 -EASEMENT TO DRAIN WATER 3 WIDE
- 5 E930876 LEASE TO THE COUNCIL OF THE SHIRE OF MANILLA.
EXPIRES 31-12-2051. OPTION OF RENEWAL 60 YEARS.
U157314 VARIATION OF LEASE WITH AN OPTION TO PURCHASE

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

3916498 DOC GO37B Grafton

PRINTED ON 31/10/2008

* ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE.

Cadastral Records Enquiry Report

Requested Parcel : Lot 13 DP 814059

Identified Parcel : Lot 13 DP 814059

Locality : MANILLA

LGA : TAMWORTH REGIONAL

Parish : MANILLA

County : DARLING



0 9 18 27 36 Metres

[illegible]

PLAN AMENDED IN RGO AT SURVEYORS REQUEST



Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

30/10/2008 11:54PM

FOLIO: 13/814059

First Title(s): VOL 1298 FOL 120 VOL 4543 FOL 53
VOL 4681 FOL 232

Prior Title(s): 1/701637 3/701637

Recorded	Number	Type of Instrument	C.T. Issue
9/12/1991	DP814059	DEPOSITED PLAN	FOLIO CREATED EDITION 1
26/11/1992	E930876	LEASE	EDITION 2
6/4/1994	U157314	VARIATION OF LEASE	EDITION 3

*** END OF SEARCH ***



Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

31/10/2008 3:46AM

FOLIO: 1/701637

First Title(s): VOL 4543 FOL 53 VOL 4681 FOL 232
Prior Title(s): VOL 4543 FOL 53 VOL 4681 FOL 232

Recorded	Number	Type of Instrument	C.T. Issue
16/4/1984	DP701637	DEPOSITED PLAN	FOLIO CREATED EDITION 1
9/12/1991	DP814059	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***



Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

31/10/2008 3:47AM

FOLIO: 3/701637

First Title(s): VOL 1298 FOL 120

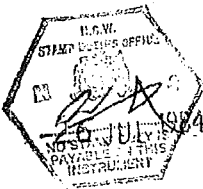
Prior Title(s): VOL 4766 FOL 97

Recorded	Number	Type of Instrument	C.T. Issue
16/4/1984	DP701637	DEPOSITED PLAN	FOLIO CREATED EDITION 1
14/8/1984	V290565	TRANSFER	EDITION 2
9/12/1991	DP814059	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

RP 13

STAMP DUTY



9 AUG 19



TRANSFER

REAL PROPERTY ACT, 1900

(See Instructions for Completion on back of form)

T	C	1	of	1	X	R1/1
\$ 30						

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
3/701637	WHOLE	AT MANILLA PARISH MANILLA COUNTY DARLING

THE COUNCIL OF THE SHIRE OF MANILLA

ESTATE
Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of £
and transfers an estate in fee simple BY WAY OF ABSOLUTE GIFT
in the land above described to the TRANSFEE

TRANSFEE
Note (d)

THE MANILLA DISTRICT HOSPITAL	OFFICE USE ONLY S
-------------------------------	--------------------------

TENANCY
Note (e)

as joint tenants/tenants in common

PRIOR
ENCUMBRANCES
Note (f)

subject to the following PRIOR ENCUMBRANCES 1. _____
2. _____ 3. _____

DATE 18th June 1984

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION
Note (g)

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL OF THE COUNCIL OF THE)
SHIRE OF MANILLA was hereunto affixed)
this Eighteenth day of June 1984)
in pursuance of a resolution passed on)
the Twenty-Third day of March 1981)
the presence of:)

Shire President

Address and occupation of Witness

Acting Shire Clerk

Signature of Transferor

Note (g)

Signed in my presence by the transferee who is personally known to me

Signature of Witness

ROBERT CHARLES AKERS
Name of Witness (BLOCK LETTERS)

HOSPITAL SECRETARY
Address and occupation of Witness

Signature of Transferee

TO BE COMPLETED
BY LODGING PARTY
Notes (h)
and (i)

LODGED BY		LOCATION OF DOCUMENTS	
JAMES HENRY & SON, CENTREPOINT, X 495 PHONE 241 5787		Herewith, In R.G.O. with Produced by	
Delivery Box Number		Cert. of Title	
Checked EBIS	Passed	REGISTERED - 19	14 AUG 1984
Signed	Extra Fee	Registrar General	

OFFICE USE ONLY

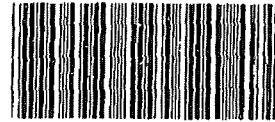


B315

/Req: B439855
/Doc: DL E930876
/Prt: 31-Oct-2008

LEASE

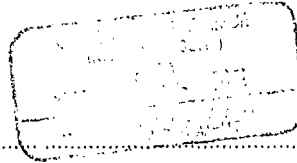
Real Property Act, 1900



E

930876 0

Office



(A) PROPERTY LEASED

Show no more than 20 References to Title.
Specify the part or premises if appropriate.

FOLIO IDENTIFIER 13/814059
FOLIO IDENTIFIER 172/595749

(B) LODGED BY

L.T.O. Box 35D	Name, Address or DX and Telephone MORRIS, LANCE & EDGAR L. T. O. CLERK 99 ELIZABETH ST., SYDNEY DX 420 232 2411 REFERENCE (max. 15 characters): 2 AS5070 E6AN
------------------------------	---

(C) LESSOR

THE MANILLA DISTRICT HOSPITAL

(D) The lessor leases to the lessee the property described above subject to the following ENCUMBRANCES

1. 2. 3. 4.

(E) LESSEE

THE COUNCIL OF THE SHIRE OF MANILLA

(F)

as joint tenants/tenants in common

(G) 1. TERM: 60 years

2. COMMENCING DATE: 1st January 1992

3. TERMINATING DATE: 31st December 2051

4. With an OPTION TO RENEW for a period of Sixty years set out in Clause 10(d)

5. ~~With an OPTION TO PURCHASE set out in~~

6. Together with and reserving the RIGHTS set out in Schedule 1.

7. Incorporates the provisions set out in ANNEXURE hereto.

8. ~~Incorporates the provisions set out in MEMORANDUM No.~~ filed in the Land Titles Office.

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

[Signature]

DATED: 1ST JANUARY, 1992

1. INTERPRETATION:

In this Lease unless the contrary intention appears:-

"The Act(5)" means the Public Hospitals Act, 1929 and the Aged and Disabled Persons Homes Act, 1954 as amended from time to time and any Act replacing the same.

"The Minister" means the Minister for Health Services
Management for the State of New South Wales.

"The Lessor" means the Manilla District Hospital and its successors.

"The Lessee" means the Lessee, hereinbefore named The Council of the Shire of Manilla and the successors and permitted assigns and sub-tenants of the Lessee and where not repugnant to the context includes the servants and agents of the Lessee. The obligations imposed on the Lessee herein are obligations of The Council of the Shire of Manilla as an eligible organisation within the meaning of the Acts hereinafter referred to or such like legislation as may be applicable during the term hereof.

"The Secretary" means the Secretary of Community Services and Health of the Commonwealth of Australia.

"Demised Premises" or "Premises" means the land hereinafter described and includes the structures and improvements thereon and the fixtures, fittings, plants, machinery and equipment erected or hereinafter to be erected or installed.

"The Hospital Land" includes all that land bounded by Kanangra Road, being in the town of Manila.

"Person" shall include a natural person, Body Corporate and Corporation Sole.

"The Regulations" means the Regulations made under the Act applying either generally or specifically to the Association.

"The Complex" means the facility to be erected on the demised premises in accordance with Clause 4(a) hereof.

Words importing the singular number shall include plural and the masculine gender the feminine or neuter and vice versa.

Chamley

2. EXCLUSION OF IMPLIED COVENANTS AND POWERS:

The covenants and powers implied in every Lease by virtue of sections 84 and 85 of the Conveyancing Act, 1919 (as amended) shall not apply or be implied in this Lease except insofar as the same or some part or parts thereof are included in the covenants hereinafter contained.

3. RENT AND OTHER PAYMENTS:

The Lessee hereby expressly COVENANTS with the Lessor:-

- (a) That the Lessee will during the continuance of this Lease pay to the Lessor the yearly rental as set out in item (1) of the First Schedule hereinafter without any deduction whatsoever;
- (b) That the Lessee will pay all rates, taxes and assessments whatsoever whether municipal local government parliamentary or any special levy in respect to the Local Government Act upon the demised premises as a result of the use to which the Lessee put the premises or otherwise as is charged to the Lessor on account thereof;
- (c) The Lessee will pay to the proper authorities all charges for services including gas electricity water and telephone supplied by such authority to the demised premises and in particular charges for excess water and the removal of garbage and rent of electricity meters AND if the Lessee shall make default in the payment of such charges or any of them it shall be lawful for the Lessor to pay the same and in addition to the Lessor's other remedy or remedies hereunder it shall be lawful for the Lessor to recover the amount so paid as if the same were rent overdue and unpaid hereunder.

4. USE OF DEMISED PREMISES BY LESSEE:

The Lessee HEREBY COVENANTS with the Lessor as follows:-

- (a) The Lessee will not use permit or suffer to be used the demised premises or any part thereof for any purpose other than the conduct of a hostel living unit or nursing home for the accommodation and care of elderly or infirm people and for purposes reasonably incidental thereto to the satisfaction of the minister or use such premises for residential purposes whether temporary or permanent;
- (b) That the Lessee will not without the consent in writing of the Minister during the continuance of the Lease assign transfer mortgage demise sublet or part with possession or by any act or deed procure

Stanley D. Brown
Robert J. Brown

the demised premises or any part thereof to be assigned transferred demised sublet unto or put in the possession of any person or persons;

- (c) That the Lessee will from time to time and in all respects punctually observe and comply with the requirements of the Act and the Regulations and with all other statutes ordinances proclamations orders or regulations present or future whether relating to or affecting the Manilla District Hospital or any business or operations conducted by the Lessee in the demised premises;
- (d) That the Lessee will not at any time during the continuance of this Lease use exercise or carry on or permit or suffer to be used exercised or carried on in or upon the demised premises or any part thereof any noxious noisome or offensive art trade business occupation or calling and no act matter or thing whatsoever shall at any time during the continuance of this Lease be done in or upon the demised premises or any part thereof which shall or may grow to the annoyance of the Lessor or any person lawfully on the Hospital land.
- (e) That the Lessor will not erect display affix or exhibit or suffer to be erected displayed affixed or exhibited on or to the premises or any part thereof or any part of the Hospital land any signs advertisements name notice or hoarding without the prior approval in writing of the Lessor and further that any such consent given by the Lessor may be revoked by the Lessor at any time in its absolute discretion;
- (f) That the Lessee will not carry on or permit any auction sale upon the premises.

5. COMMENCEMENT OF BUILDING

The Lessee HEREBY COVENANTS with the Lessor:-

That in the event of the buildings referred to in Clause 6(a) hereof not being substantially commenced within five (5) years from the date hereof, the Lessor shall have the right to declare by notice in the New South Wales Government Gazette that the Lease hereby granted is cancelled and forfeited (whereupon the Lease hereby granted shall determine) and to re-enter into and upon the premises or any part thereof but without prejudice to any action or other remedy which the Lessor has or might or otherwise could have for arrears of rent or breach of covenant or for damages as a result of any such event PROVIDED FURTHER that if the Lessee be prevented by fire, flood, lightning, storm, tempest or other inevitable

Handwritten signatures:
Stanley D. B. B. B. B.
A. McManus

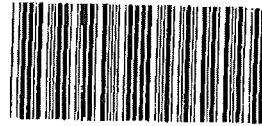
RP99



VARIATION OF LE

Real Property Act, 1900

Office of:



U
157314 V

(A) **TITLES AFFECTED**

Show no more than twenty.

314057
FOLIO IDENTIFIER 13/814252
FOLIO IDENTIFIER 172/595749

(B) **HEAD LEASE AFFECTED**

If applicable.

(C) **LODGED BY**

L.T.O. Box 35D	Name, Address or DX and Telephone: MORRIS, EDGAR LAW STATIONERS 99 ELIZABETH ST., SYDNEY DX 420 REFERENCE (max. 15 characters): 2AW3777 EGPW	VL
--------------------------	--	-----------

(D) **LESSOR**

THE MANILLA DISTRICT HOSPITAL

(E) **LEASE VARIED**

E930876

(F) **LESSEE**

THE COUNCIL OF THE SHIRE OF MANILLA

- (G) 1. The rent is increased/reduced to _____ dollars and
_____ cents (\$ _____) per _____ on and as from _____ 19 ____.
2. The term is increased/reduced to _____ years _____ months—
so as to expire on _____.
3. The provisions of the Lease are varied/omitted/added to as set out in Annexure "A" hereto.

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

811

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900

DATE OF EXECUTION

Signed in my presence by the lessor who is personally known to me

.....
Signature of Witness

.....
Name of Witness (BLOCK LETTERS)

.....
Address of Witness

.....
P. Murphy

Signature of Lessor

PAUL KEVIN MURPHY, Solicitor for Lessor

Signed in my presence by the lessee who is personally known to me

THE COMMON SEAL OF THE COUNCIL OF
THE SHIRE OF MANILLA was hereunto
affixed in the presence of

.....
Signature of Witness

.....
Name of Witness (BLOCK LETTERS)

.....
Address of Witness

.....
J. Maxwell
MAYOR

.....
Stanley
GENERAL MANAGER

4.2.94



THIS IS THE ANNEXURE MARKED "A" TO VARIATION OF LEASE BETWEEN
THE MANILLA DISTRICT HOSPITAL (LESSOR) AND THE COUNCIL OF THE
SHIRE OF MANILLA (LESSEE)

DATED:

The following clause should be added as Clause 12(e):

"Notwithstanding the provisions of clause 12(d) hereof, in the event that the Manilla District Hospital is closed or amalgamated and the Lessor gives to the Lessee the Notice referred to in such clause, then if the Lessee desires to purchase from the Lessor the reversion in fee simple in the demised premises and gives to the Lessor within one (1) month of the receipt of the Notice under Clause 12(d) from the Lessor notice in writing of such desire then the provisions of the Act for the sale of the demised premises to the Lessee, and, subject to the obtaining of the Minister's Consent pursuant to the Act and of any conditions imposed by the Minister and any reasonable conditions of the Department of Health, shall offer to sell to the Lessee the demised premises at a valuation of the land value only of the demised premises upon such terms and conditions as required by the Minister or the Department of Health, and subject also to the parties entering into a normal form of contract for sale of the demised premises as approved by the Law Society of New South Wales at the date of such sale."

Clause (G) 5 should be amended by adding the words:

"With an OPTION TO PURCHASE set out in Clause 12(e)."

J. J. Maxwell
Chairman



Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 14/814059

SEARCH DATE	TIME	EDITION NO	DATE
31/10/2008	2:15 AM	2	11/3/1994

LAND

LOT 14 IN DEPOSITED PLAN 814059
AT MANILLA
LOCAL GOVERNMENT AREA TAMWORTH REGIONAL
PARISH OF MANILLA COUNTY OF DARLING
TITLE DIAGRAM DP814059

FIRST SCHEDULE

THE MANILLA DISTRICT HOSPITAL

SECOND SCHEDULE (2 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
- 2 U90293 EASEMENT TO DRAIN WATER 3 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED (D) IN DP814059

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

3916499 DOC GO37B Grafton

PRINTED ON 31/10/2008

* ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE.

Locality : MANILLA

Cadastral Records Enquiry Report

Requested Parcel : Lot 13 DP 814059

LGA : TAMWORTH REGIONAL

Parish : MANILLA

Identified Parcel : Lot 13 DP 814059

County : DARLING



Report Generated 8:32:40 AM, 31 October, 2008

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGS Charting and Reference Maps.

PLAN FORM 2

SEAL, SCALE AND STATEMENTS OF INTENTION TO
DEVELOP, EXISTING OR TO BE DEVELOPED, CARRIED OUT
IN ACCORDANCE WITH THE ACT AND THE RULES OF PRACTICE.

David Grafton
Surveyor
City of Darwin

THE COMMON SEAL OF THE
DARWIN DISTRICT COUNCIL
WAS HEREBY AFFIXED BY
RESOLUTION OF THE BOARD OF
DIRECTORS

David Grafton
Surveyor

OWNERS LANDS OFFICE APPROVAL

PLANNING DEPARTMENT APPROVAL

LOCAL GOVERNMENT APPROVAL

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SCHEDULE OF SHORT LINES	
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2	20.00m
3	20.00m
4	20.00m
5	20.00m
6	20.00m

SCHEDULE OF PERMANENT & REFERENCE MARKS	
A	150° 14' 4.875" DH & W PD (DP 238644)
B	150° 14' 4.875" DH & W PD (DP 238644)
C	150° 14' 4.875" DH & W PD (DP 238644)
D	150° 14' 4.875" DH & W PD (DP 238644)
E	150° 14' 4.875" DH & W PD (DP 238644)
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H	150° 14' 4.875" DH & W PD (DP 238644)
I	150° 14' 4.875" DH & W PD (DP 238644)
J	150° 14' 4.875" DH & W PD (DP 238644)

- 1. EXISTING EASEMENT FOR RISING MAIN & OVERFLOW PIPE (WIDE DP 166472) /
- 2. EASEMENT FOR RISING MAIN & OVERFLOW PIPE (WIDE DP 166472) /
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WARNING: CHEATING OR FOLDING WILL LEAD TO REJECTION

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day 9th December, 1991

DP 814059

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Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

30/10/2008 11:57PM

FOLIO: 14/814059

First Title(s): VOL 4543 FOL 53

Prior Title(s): 1/701637 206/752191

Recorded	Number	Type of Instrument	C.T. Issue
9/12/1991	DP814059	DEPOSITED PLAN	FOLIO CREATED EDITION 1
11/3/1994	U90293	GRANT OF EASEMENT	EDITION 2

*** END OF SEARCH ***



Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

31/10/2008 3:46AM

FOLIO: 1/701637

First Title(s): VOL 4543 FOL 53 VOL 4681 FOL 232
Prior Title(s): VOL 4543 FOL 53 VOL 4681 FOL 232

Recorded	Number	Type of Instrument	C.T. Issue
16/4/1984	DP701637	DEPOSITED PLAN	FOLIO CREATED EDITION 1
9/12/1991	DP814059	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***



Department of Lands

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

31/10/2008 3:50AM

FOLIO: 206/752191

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 15204 FOL 249

Recorded	Number	Type of Instrument	C.T. Issue
14/12/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
8/2/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
18/3/1991		AMENDMENT: TITLE DIAGRAM	
9/12/1991	DP814059	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***



CERTIFICATE OF TITLE



15204-249

NEW SOUTH WALES

PROPERTY ACT, 1900

* First Title : Vol.4543 Fol.53

Prior Title : Vol.4543 Fol.53



Vol. 15204 Fol. 249

EDITION
ISSUED 7 5 1984

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

CANCELLED

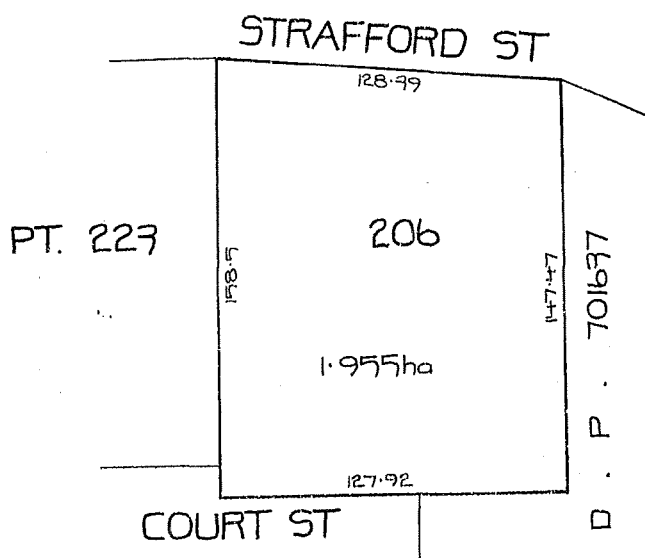
Registrar General.

SEE AUTO FOLIO



PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



D.P. 701697 *alt.*

LAND REFERRED TO

Portion 206 at Manilla in the Shire of Manilla Parish of Manilla and County of Darling.

FIRST SCHEDULE

THE MANILLA DISTRICT HOSPITAL.

SECOND SCHEDULE

- GRM
1. Land excludes minerals and is subject to reservations and conditions in favour of the Crown - see Crown Grant.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

15204 Fol. 249

(Page 1) Vol.

L.O. 1066 D. West, Government Printer

FIRST SCHEDULE (continued)
REGISTERED PROPRIETOR

Registrar General

SECOND SCHEDULE (continued)

PARTICULARS

Registrar General

CANCELLATION

NOTATIONS AND UNREGISTERED DEALINGS

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

APPENDIX D

Aerial Photographs



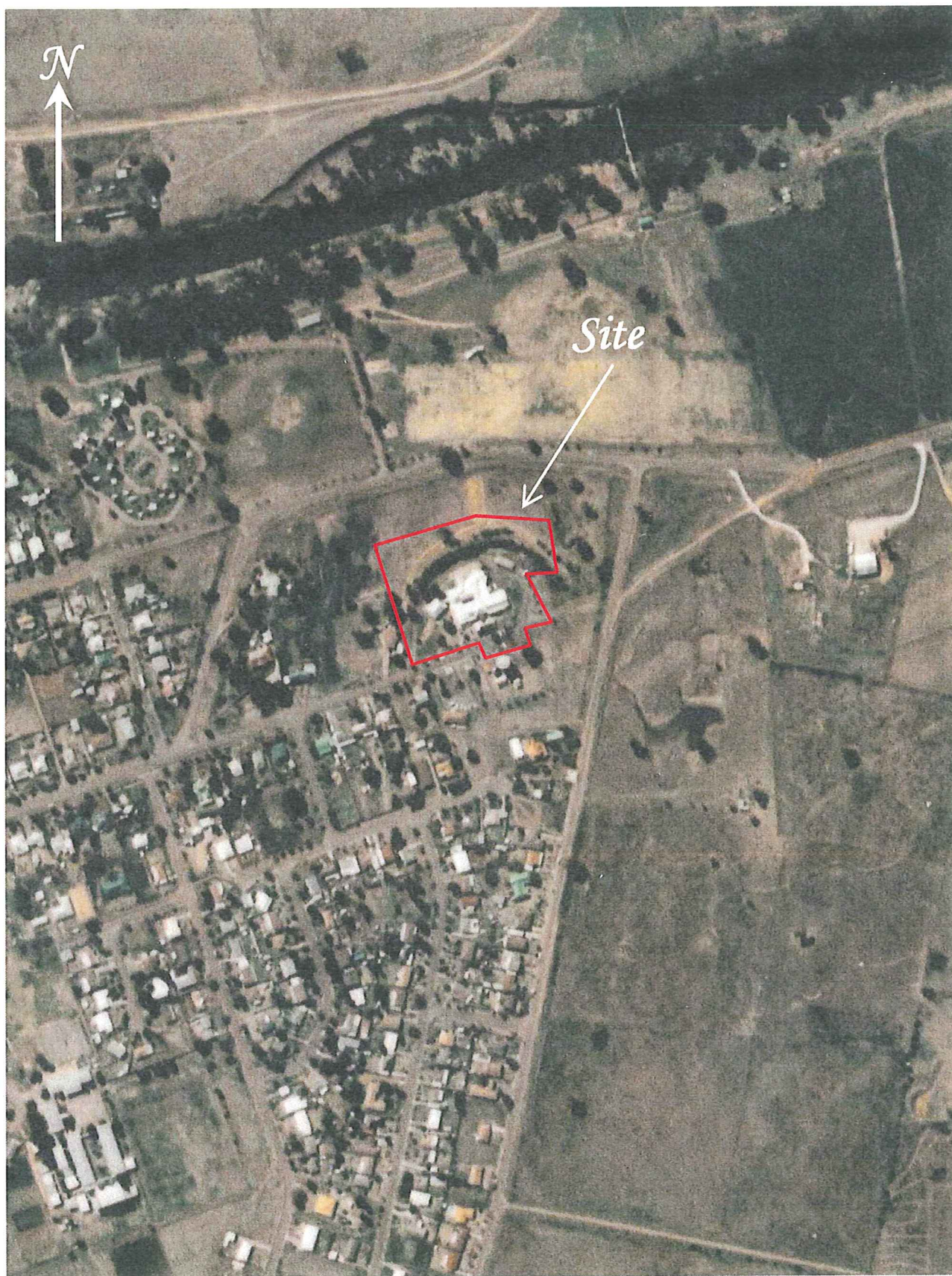
1966



1975



1978



1991



2006

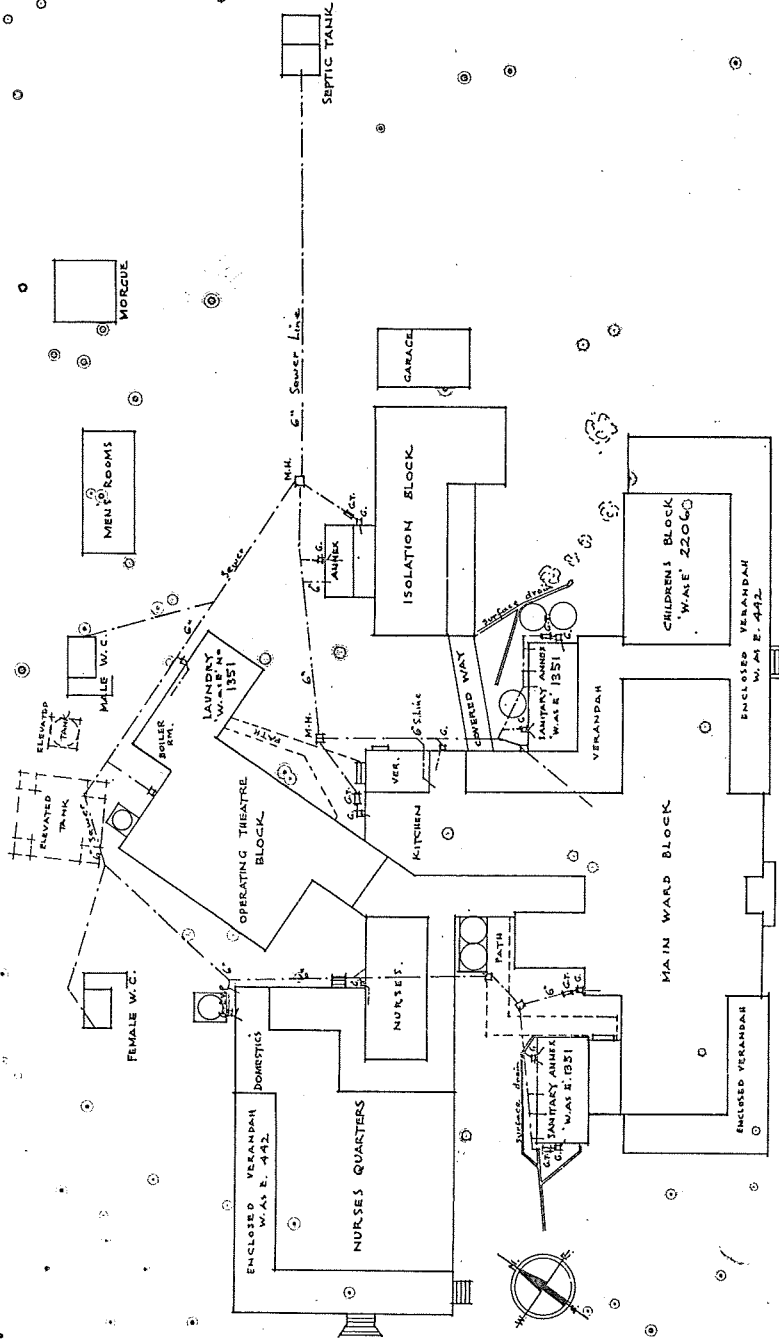


1997

APPENDIX E

Old Plans

1938



PHI 12 '9

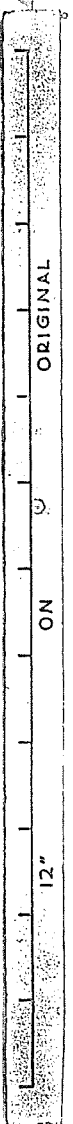
MANILLA DISTRICT HOSPITAL BLOCK PLAN

G.A.B. No 1938/3594

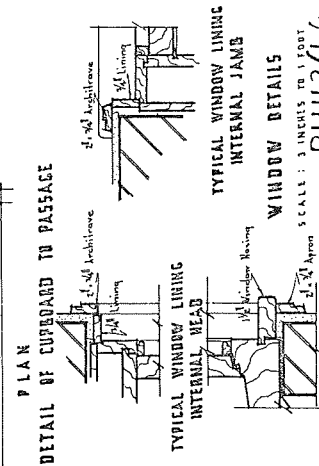
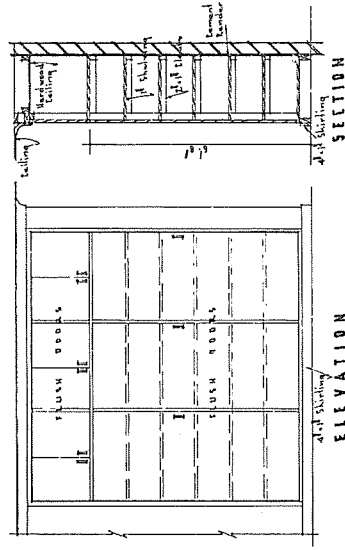
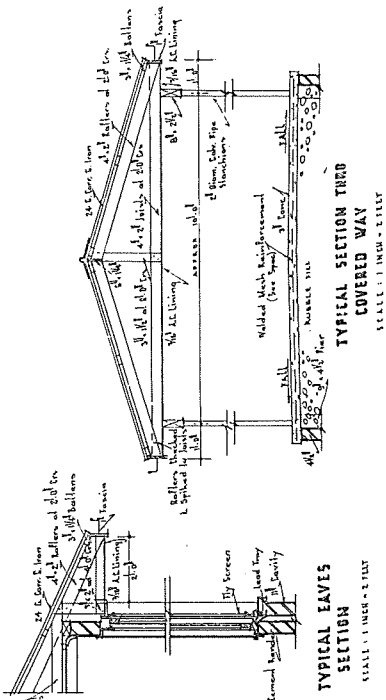
SEC 12.4-38
DESIGNING ARCHITECT
1/6 DRAWING OFFICE

13444
GOVERNMENT ARCHITECT

B-2544

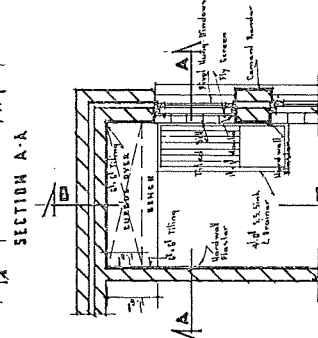
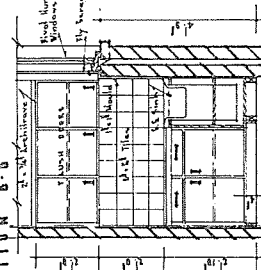
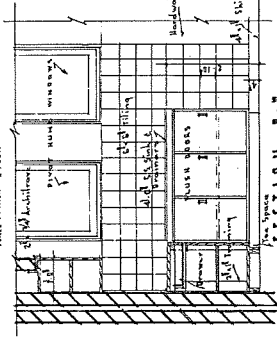


1950



MARILLA DISTRICT HOSPITAL NURSES HOME	
SITE PLAN & DETAILS	PH112/16
SCALE: 1/4" = 1' - 0" TO 1/4" = 1' - 0"	
DRAWING NO. 2	
BY: M. M. 2	

SECTION THRO VERANDAH PLATE
SCALE: 1/4" = 1' - 0"

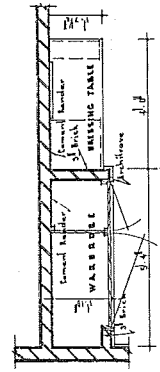
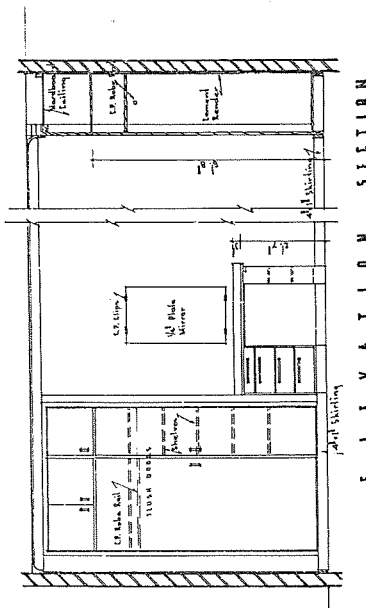


TYPICAL WINDOW NOSING	
SCALE: 3/4" = 1' - 0"	
GOVERNMENT ARCHITECT	

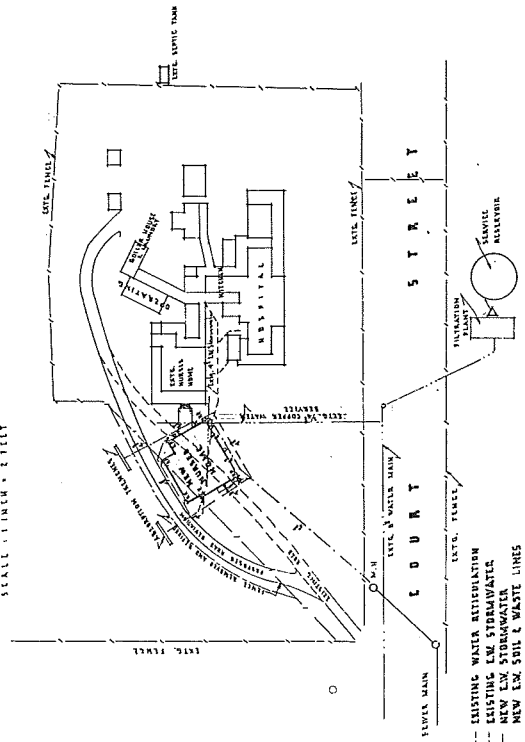
5506

PLAN

DETAIL OF PANTRY SINK & CUPBOARDS UNDER & OVER
SCALE: 1/4" = 1' - 0"



DETAIL OF NURSES WARDROBE & DRESSING TABLE
SCALE: 1/4" = 1' - 0"



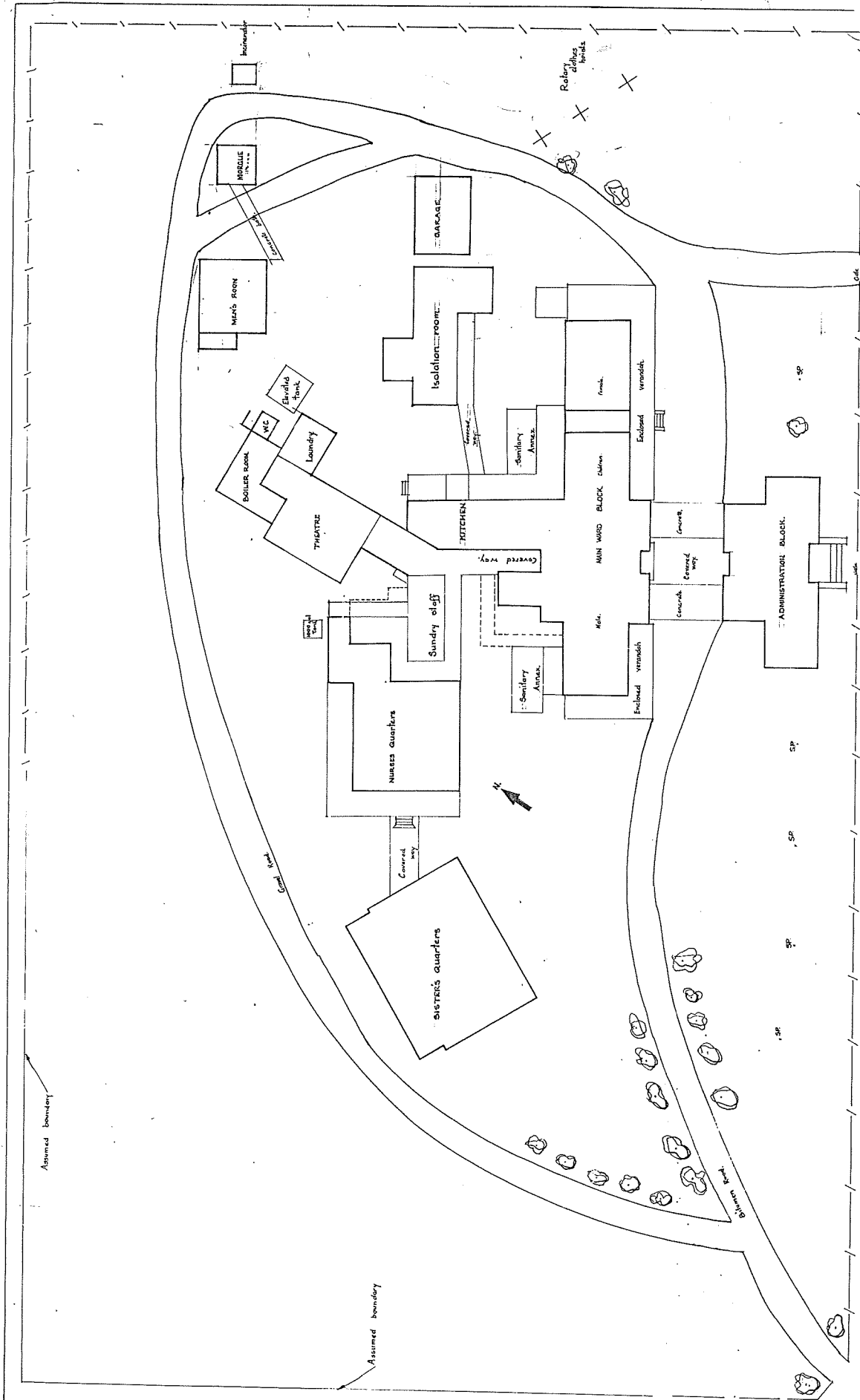
SITE PLAN
SCALE: 1/4" = 1' - 0"

SKETCHES BY GOVERNMENT ARCHITECT	CONTRACT NO. 91/51
WORKING DRAWINGS BY T.M. MALONEY	C.A.B. NO. D182/52
ARCHITECT D.M.C. OFFICE	

J.M. MAIN,
DIRECTOR OF PUBLIC WORKS.

1963

300m. ON ORIGINAL SCALE



COURT STREET.

PH112/21	
MANILLA DISTRICT HOSPITAL	
SITE PLAN	
SCALE 1/16" EQUALS 1 FOOT	1963
W58-65	NA4-124

EHanner Architect

DRAWN BY	K.S.	HO FILE
CHECKED BY	D.J.	S45/11
Architect Norman D. Dwyer		LO FILE
		HSI.

RAJahman Director

NOTES
 THE BUILDINGS ARE OF SINGLE STOREY FULL BRICK CONSTRUCTION.
 STEAM LINES RUN IN ROOF SPACE & CONDENSED WATER RUN UNDER FLOOR. HOT WATER RETURN LINES ARE BASINS 6" DIA. RETURN LINES ARE RUN IN ROOF SPACE. HOT WATER FLOW ONLY TO SISTERS QUARTERS.
 PIPE SIZES SHOWN ARE NOMINAL PIPE SIZES.

HEATING IS BY STEAM RADIATORS, STEAM CONVECTORS & SOLID FUEL ROOM HEATERS.
MAIN HOSPITAL
 IDEAL CAST IRON COLUMN TYPE RADIATORS WITHOUT FEET, ALL 24" HIGH 15 1/2" WIDE.
 LOCATIONS ARE AS SHOWN ON PLAN. THE NUMBERS INDICATE THE NUMBER OF RADIATORS IN EACH ROOM.
 TOTAL HEATING SURFACE 446,200 S.F.
ADMINISTRATION BLOCK
 DOUBLE VECTAIR 45" WALL MOUNTED CONDENSATE PUMP.
 HEAT OUTPUT USING S.P.S. STEAM - SECRETARY - 11,200 B.T.U./HR.
 MATRON - 11,200 B.T.U./HR.
 HALL - 7,800 B.T.U./HR.
 WAITING AREA - 152,000 B.T.U./HR.
 OFFICE - 11,200 B.T.U./HR.
 TOTAL - 378,000 B.T.U./HR.

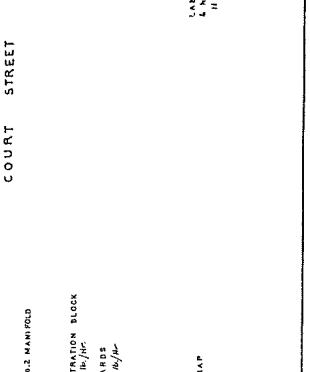
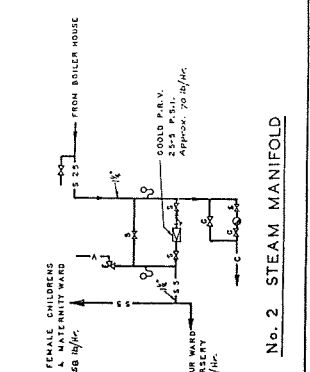
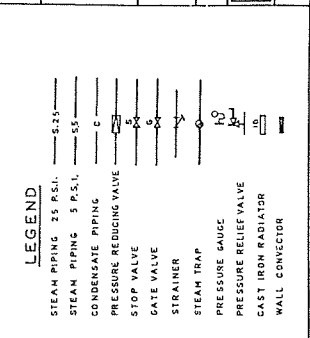
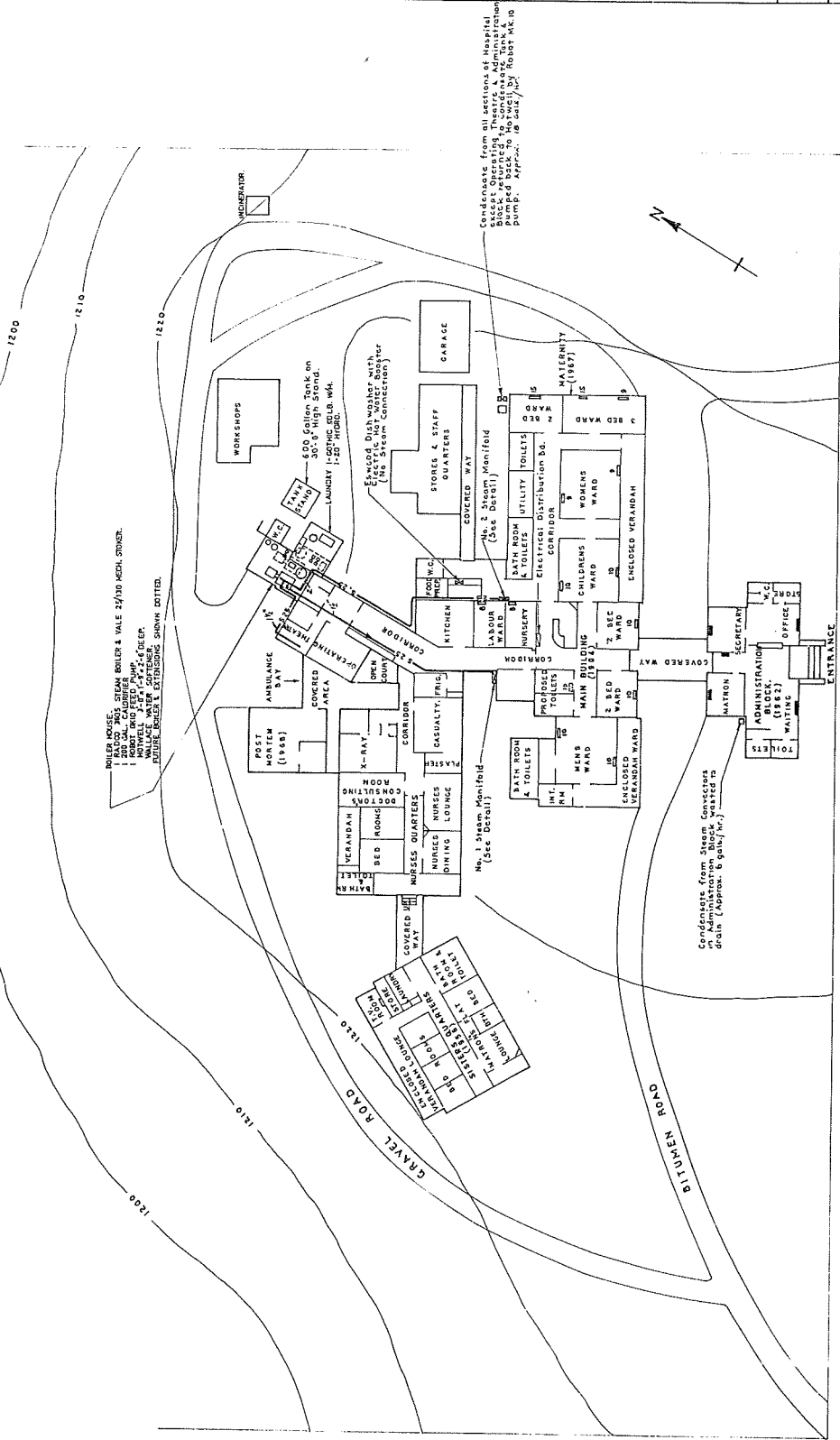
SOLID FUEL ROOM HEATERS ARE 12" DIA. 12" HIGH 12" WIDE. FOLLOWING ARE THE HEATERS:
 NURSES DINING - 1 WARMERITE
 NURSES DINING - 1 WARMERITE
 MATRONS LOUNGE - 1 KOSI
 SISTERS T.V. ROOM - 1 KOSI
 STERILIZING
 STEAM - 1 STERIMATIC 16 1/2" AUTOCLAVE THEATRE
 1 STERIMATIC 16 1/2" PRESSURE STERILIZER (PAN ROOM)
 2-30 GALLON STERILE (OPERATING THEATRE)
 ELECTRIC 2 BOILING WATER STERILISERS.
 1 STERIMATIC PRESSURE STERILISERS (UTILITY RM.)

NOTE: THIS PLAN IS COMPILED FROM INFORMATION OBTAINED ON A SITE VISIT TO MANILLA ON 15-3-59. P. 10/11

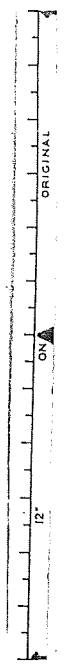
DEPARTMENT OF PUBLIC WORKS
 NEW SOUTH WALES
 J.C. HUMPHREY, DIRECTOR
 E.H. FARMER, GOVERNMENT ARCHITECT
 PRINCIPAL ENGINEER
 174/184 Sydney Street

MANILLA DISTRICT HOSPITAL
SITE PLAN 1969.

STEAM AND CONDENSATE SERVICE
 SCALE: 16" = 1 INCH
 NUMBER IN SET 1
 SHEET NUMBER 1
 PLAN RM. 174
 NO. PH112-1/10. 1/15/69



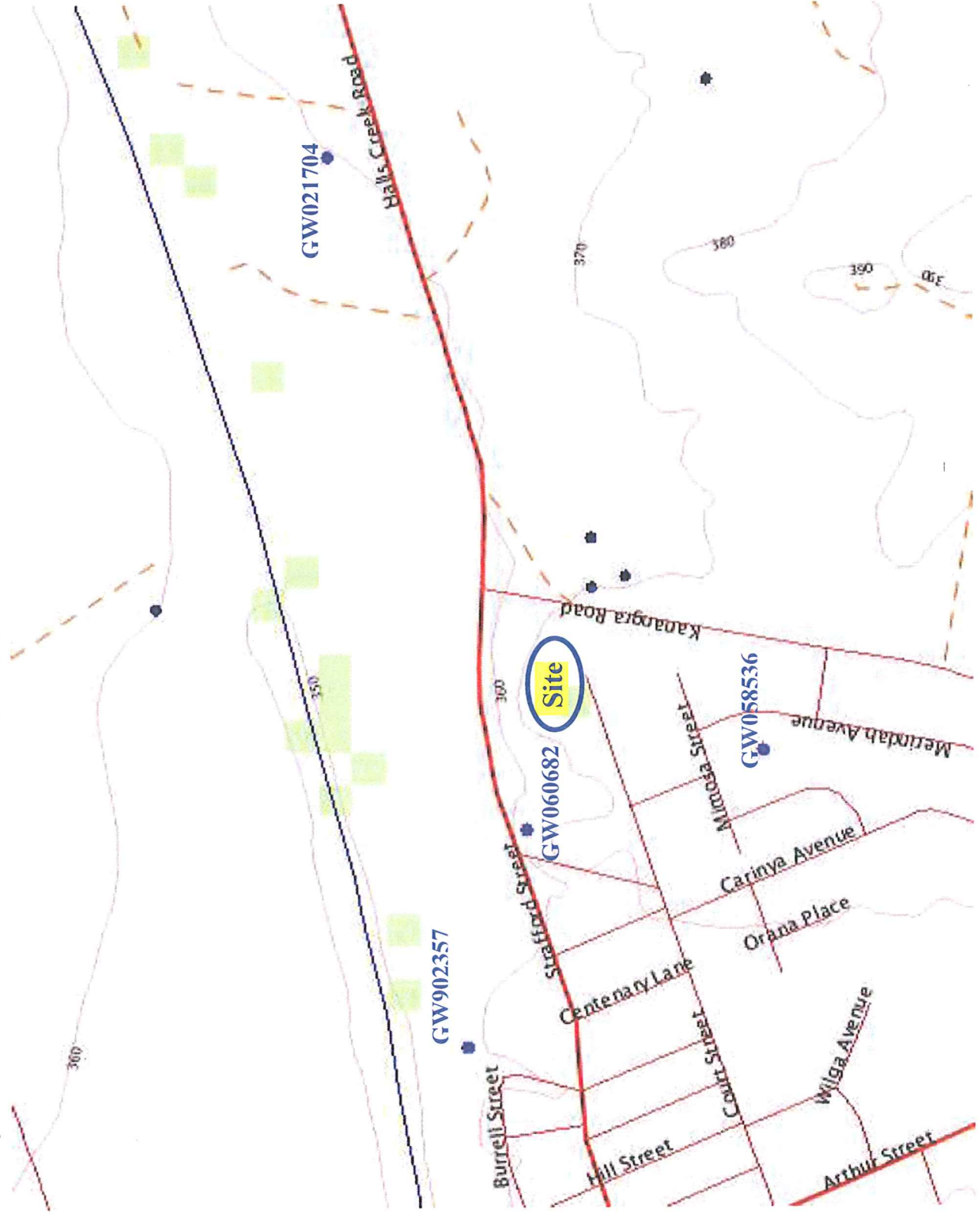
ROLL 92



1969

APPENDIX F

Groundwater Bore Summaries



Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Monday, November 3, 2008

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW060682

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW060682
LIC-NUM 90BL132057
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore open thru rock
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Rotary Air
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1985-03-01
FINAL-DEPTH (metres) 76.00
DRILLED-DEPTH (metres) 76.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA 023 - MISCELLANEOUS ALLUVIUM OF THE BARWON REGION
GW-ZONE 008 - MISCELLANEOUS
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 90 - BARWON
RIVER-BASIN 419 - NAMOI RIVER
AREA-DISTRICT
CMA-MAP 9036-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6596447.00
EASTING 282718.00
LATITUDE 30 44' 42"
LONGITUDE 150 43' 49"
GS-MAP 0028C3
AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

Form-A [\(top\)](#)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP 223

Licensed (top)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP PT224

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Casing	Casing Protector	-0.50	0.50	160			Driven into Hole
1	1	Casing	P.V.C.	-0.50	12.00	130			Suspended in Clamps

Water Bearing Zones (top)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT- DESC	S- W-L	D- D-L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
34.00	35.00	1.00	Fractured			0.00			(Unknown)
73.00	74.00	1.00	Fractured			1.90			(Unknown)

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	10.00	10.00	Shale		
10.00	14.00	4.00	Shale		
14.00	76.00	62.00	Basalt	Water Supply	

Warning To Clients: This raw data has been supplied to the Department of Infrastructure, Planning and Natural Resources (DIPNR) by drillers, licensees and other sources. The DIPNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Monday, November 3, 2008

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW902357

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW902357
LIC-NUM	90BL246912
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC STOCK
WORK-TYPE	Bore
WORK-STATUS	Abandoned Bore
CONSTRUCTION-METHOD	Rotary Air
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1995-05-23
FINAL-DEPTH (metres)	79.20
DRILLED-DEPTH (metres)	79.20
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	- MISCELLANEOUS ALLUVIUM OF THE BARWON REGION
GW-ZONE	- NAMOI U/S OF MANILLA
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details [\(top\)](#)

REGION	90 - BARWON
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6596534.00
EASTING	282424.00
LATITUDE	30 44' 39"
LONGITUDE	150 43' 38"
GS-MAP	
AMG-ZONE	56
COORD-SOURCE	
REMARK	

Form-A [\(top\)](#)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP LT13 DP5787

Licensed (top)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP L1 13 SECTN 6 DP5787

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	79.20	152			Rotary Air

Water Bearing Zones (top)

no details

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.90	0.90	Soil		
0.90	3.60	2.70	Clay		
3.60	29.20	25.60	Shale - blue		
29.20	79.20	50.00	Basalt - blue		

Warning To Clients: This raw data has been supplied to the Department of Infrastructure, Planning and Natural Resources (DIPNR) by drillers, licensees and other sources. The DIPNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Monday, November 3, 2008

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW058536

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW058536
LIC-NUM
AUTHORISED-PURPOSES
INTENDED-PURPOSES NOT KNOWN
WORK-TYPE Bore
WORK-STATUS Supply Obtained
CONSTRUCTION-METHOD Rotary Air
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1982-12-01
FINAL-DEPTH (metres) 61.00
DRILLED-DEPTH (metres) 61.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY
GWMA
GW-ZONE
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 90 - BARWON
RIVER-BASIN 419 - NAMOI RIVER
AREA-DISTRICT
CMA-MAP 9036-3N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6596080.00
EASTING 282832.00
LATITUDE 30 44' 54"
LONGITUDE 150 43' 53"
GS-MAP 0028C3
AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

Form-A [\(top\)](#)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP 109

Licensed (top)

no details

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	P.V.C.	0.00	0.00	36			(Unknown)

Water Bearing Zones (top)

no details

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	7.32	7.32		Loam	
7.32	60.96	53.64		Shale	

Warning To Clients: This raw data has been supplied to the Department of Infrastructure, Planning and Natural Resources (DIPNR) by drillers, licensees and other sources. The DIPNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Monday, November 3, 2008

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW021704

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW021704
LIC-NUM 90BL014127
AUTHORISED-PURPOSES DOMESTIC STOCK
INTENDED-PURPOSES DOMESTIC STOCK
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1964-07-01
FINAL-DEPTH (metres) 10.70
DRILLED-DEPTH (metres) 10.70
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY WESTBANK
GWMA 023 - MISCELLANEOUS ALLUVIUM OF THE BARWON REGION
GW-ZONE 002 - NAMOI U/S OF MANILLA
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 90 - BARWON
RIVER-BASIN 419 - NAMOI RIVER
AREA-DISTRICT
CMA-MAP 9036-4S
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6596773.00
EASTING 283617.00
LATITUDE 30 44' 32"
LONGITUDE 150 44' 23"
GS-MAP 0028C3
AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

Form-A [\(top\)](#)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP 64

Licensed (top)

COUNTY DARLING
PARISH MANILLA
PORTION-LOT-DP 64

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Threaded Steel	-0.60	7.90	152			Driven into Hole
1	1	Opening	Slots	0.00	0.00	152		1	Oxy-Acetylene Slotted; SL: 0mm; A: 0mm

Water Bearing Zones (top)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT- DESC	S-W- L	D- D-L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
7.30	7.90	0.60	Unconsolidated	7.00		0.88			(Unknown)

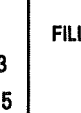
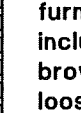
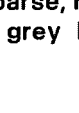
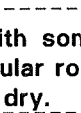
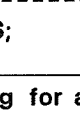
Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.61	0.61	Topsoil		
0.61	7.32	6.71	Clay Gravel		
7.32	7.92	0.60	Gravel Water Supply		
7.92	10.67	2.75	Shale Hard		

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APPENDIX G
Draft Borehole Logs (Phase 1 Fieldwork of Geotechnical Investigation)

PROJECT: MANILLA HOSPITAL
DATE: 27.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OF TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0	No Groundwater Encountered	TC	SPT 1,2,3 N = 5	FILL		SILTY SAND with some clay; brown; very loose; moist. 0.20
				FILL		GRAVEL in a clayey silt matrix; gravel is meta-siltstone, angular fragments to 50mm; yellow brown, brown and dark brown; uncontrolled (soft to firm). 1.00
1			SPT 1,2,1 N = 3	FILL		SILTY SAND with some clay; contains some embedded rock fragments and rounded pebbles; with pockets/interbeds of furnace refuse - ash, burnt coal and wood, also includes small brick fragments; brown grey, brown, black and light grey; uncontrolled (very loose); dry. 2.00
2				FILL		GRAVEL in a clayey silt matrix; gravel is coarse, ranging to small cobble size; brown and grey brown. 2.60
			SPT 7,3/30,- N = R	CI (v)		CLAYEY SILT with some gravel; gravel is fine, angular rock fragments; grey brown; stiff; dry. 2.80
3				GM (v)		GRAVEL and COBBLES; dense; dry. END at 3.10
4						NOTE: Very hard drilling for a TC bit below 2.8m. TC bit refusal at 3.1m is inferred to have occurred on a cobble. No cuttings appearing at the surface and any matrix is not known. Borehole was moved 0.5m and re-drilled. Profile was slightly variable. Gravel fill with very minor silty matrix between 0.7m and 1.4m. Gravel and cobbles encountered at 2.6m with TC bit refusal at 2.8m.
5						

DRAFT

SAMPLE OR TEST

U.....Undisturbed
D.....Disturbed
SPT.....Standard Penetration Test
CPT.....Cone Penetration Test

v : visual
l : laboratory

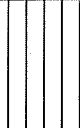
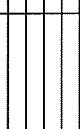
WATER

➤ Water Table
➤ Water Inflow

FIELD SUPERVISOR:
C.KARWAJ
PROJECT COORDINATOR:
M.RAHIMI

SHEET 1 OF 1 SHEETS
SCALE 1 : 25

PROJECT: MANILLA HOSPITAL
DATE: 27.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0				FILL		BITUMEN over gravelly silty sand; brown and grey brown; compact (medium dense); dry. 0.45
1			SPT 4,3,2 N = 5	CH (v)		SANDY SILTY CLAY , some gravel; red brown and yellow brown; firm with soft zone at 1 - 1.4m; dry to 1m, then moist. (possibly fill) 1.40
2			SPT 1,1,3 N = 4	CH (v)		SANDY SILTY CLAY ; with thin gravelly interbeds/pockets; gravel is fine, angular rock fragments; orange red brown with grey brown interbeds; stiff with hard lenses; moist. 2.00
3			SPT 9/90,- N = R	GC (v)		GRAVEL in a sandy clay matrix; contains rare clayey silt interbed to 100mm thick; gravel is subrounded, subangular and angular rock fragments to 40mm; stiff to very stiff, with hard pockets; orange brown, light grey and grey brown; just moist. 3.20
4			SPT 10,6/50,- N = R	CI/CH (v)		CLAYEY SILT ; with occasional embedded gravel (subrounded) and subangular rock fragments; orange brown and light grey; very stiff with hard pockets; dry. 3.60
			SPT 9,12,- N = R	ROCK		SANDSTONE (tuffaceous); extremely weathered to highly weathered; extremely weak; fine grained; yellow brown 4.20
			D	ROCK		- becomes highly weathered; very weak; yellow brown and dark brown, interbedded with meta-siltstone/mudstone.. END at 4.70
5						NOTE: Hard drilling for a TC bit below 4.5m. TC bit refusal at 4.7m on what is inferred to be moderately weathered, weak bedrock. SPT refusals generally occurred in gravelly pockets.

DRAFT

SAMPLE OR TEST

U.....Undisturbed
D.....Disturbed
SPT.....Standard Penetration Test
CPT.....Cone Penetration Test

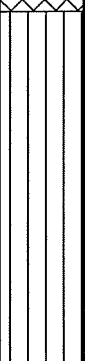
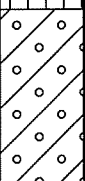
v : visual
l : laboratory

WATER

➤ Water Table
➤ Water Inflow

FIELD SUPERVISOR:
C.KARWAJ
PROJECT COORDINATOR:
M.RAHIMI
SHEET 1 OF 1 SHEETS
SCALE 1 : 25

PROJECT: MANILLA HOSPITAL
DATE: 27.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0	No Groundwater Encountered	TC	5/90, -- N = R SPT SPT N = R 11,10/60,	FILL		BITUMEN (15mm) over sandy gravel; red brown; compact (medium dense); dry.
				FILL		CLAYEY GRAVEL; red brown, yellow brown and grey brown pockets; compact; (medium dense to dense); just moist.
1				CH/CI (v)		GRAVELLY SILTY CLAY, with some sand; contains pockets/thin interbeds of clayey gravel; high gravel concentration at 1.2m; occasional coarse gravel/cobbles between 1.5m and 1.7m; red brown, light grey and yellow brown; very stiff with hard pockets/interbeds; dry to moist.
2				GC (v)		GRAVEL in clayey matrix; gravel is coarse, ranging to small cobble size; very high concentration 2.4 to 2.6m; mid grey, red brown and yellow brown; dense; dry.
3				ROCK		SANDSTONE (tuffaceous); extremely weathered to highly weathered; extremely weak; fine grained; dark brown/brown.
4			D	ROCK		- becomes highly weathered; very weak to weak; fractured, interbedded with meta-siltstone/mudstone.
5						NOTE: All SPT's refused in gravelly pockets. Hard drilling for a TC bit below 3.8m. TC bit refusal at 4.1m on what is inferred to be moderately weathered, weak bedrock.

DRAFT

SAMPLE OR TEST

U.....Undisturbed
 D.....Disturbed
 SPT....Standard Penetration Test
 CPT....Cone Penetration Test

v : visual
 l : laboratory

WATER

 Water Table
 Water Inflow

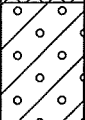
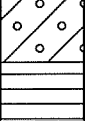
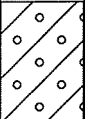
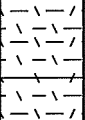
FIELD SUPERVISOR:
C.KARWAJ
PROJECT COORDINATOR:
M.RAHIMI
SHEET 1 OF 1 SHEETS
SCALE 1 : 25

PROJECT: MANILLA HOSPITAL
DATE: 27.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

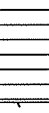
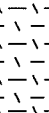
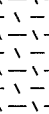
DEPTH (m)	WATER	BIT	SAMPLE OF TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks		
0	No Groundwater Encountered	TC	SPT 3,3,5 N = 8	FILL		CLAYEY SILTY SAND, some gravel; red brown; loose; moist.	0.15	
				FILL		FURNACE REFUSE; ash, slag, gravel sized burnt coal fragments; black and grey brown; very loose (uncontrolled); dry.	0.50	
				FILL		GRAVELLY SANDY CLAY; contains high concentration of rock fragments in pockets; red brown; moderately compact (firm); moist.	1.30	
1				SPT 2,3,4 N = 7	FILL		SANDY CLAYEY GRAVEL; coarse grained rock fragments; loose to medium dense; moist.	1.50
			FILL			FURNACE REFUSE; ash, burnt coal, some gravel sized rock fragments; one-off piece of steel; uncontrolled (loose); dry.	2.10	
2			CI (v)			GRAVELLY SANDY CLAY; red brown; firm; moist. (interpreted to be in-situ).	2.40	
				SPT 9/110,-,- N = R	GC (v)		GRAVEL and COBBLES in clayey matrix; dark grey brown; medium dense; moist.	3.00
3					ROCK		SANDSTONE (tuffaceous); extremely weathered to highly weathered; extremely weak; fine grained; yellow brown and dark brown.	
4					ROCK		META-SILTSTONE/MUDSTONE; becomes highly weathered; very weak to weak; dark brown.	END at 4.40
5								NOTE: Hard drilling for a TC bit below 4m. TC bit refusal at 4.4m inferred to be on moderately weathered, weak bedrock.
SAMPLE OR TEST U.....Undisturbed D.....Disturbed SPT.....Standard Penetration Test CPT.....Cone Penetration Test				v : visual l : laboratory		WATER  Water Table  Water Inflow	FIELD SUPERVISOR: C.KARWAJ PROJECT COORDINATOR: M.RAHIMI SHEET 1 OF 1 SHEETS SCALE 1 : 25	

DRAFT

PROJECT: MANILLA HOSPITAL
DATE: 27.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks	
0	No Groundwater Encountered	TC	SPT 5,14,2/5 N = R	FILL		BITUMEN (10mm) over silty sandy gravel; red brown; compact (medium dense); moist.	0.15
				GC/GM (v)		SILTY CLAYEY GRAVEL; matrix varies in pockets; grey brown and orange brown; loose to medium dense; dry. (possibly fill)	0.75
				CI (v)		CLAYEY SILT, trace of gravel; orange brown; stiff; dry.	0.95
1				GC (v)		GRAVEL in a sandy silty clay matrix; angular to subrounded rock fragments to 40mm; matrix light grey and orange brown; dense; dry.	1.40
				GM (v)		GRAVEL becomes coarse, ranging to small cobble size; lesser matrix; dense; dry.	1.70
2				ROCK		SANDSTONE (tuffaceous); extremely weathered to highly weathered; extremely weak to very weak; fine grained; dark brown and yellow brown. - becomes highly weathered; very weak to weak.	2.00
			SPT 7/50, - N = R	ROCK			
3							
4							
5							
END at 3.20							
NOTE: TC bit refusal at 3.2m.							
DRAFT							
SAMPLE OR TEST U.....Undisturbed D.....Disturbed SPT.....Standard Penetration Test CPT.....Cone Penetration Test				v : visual l : laboratory		WATER  Water Table  Water Inflow	FIELD SUPERVISOR: C.KARWAJ PROJECT COORDINATOR: M.RAHIMI SHEET 1 OF 1 SHEETS SCALE 1 : 25

PROJECT: MANILLA HOSPITAL
DATE: 28.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OF TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0	No Groundwater Encountered	TC	SPT 2,2,2 N = 4	FILL		GRAVEL in a minor clayey matrix; mantled by a veneer of silty topsoil with organics; orange brown; uncontrolled (very loose); dry.
1						
1.20			SPT 4,9,5/50 N = R	CI (v)		GRAVELLY SILTY CLAY; high gravel concentration to 1.5m; reddish brown and grey; firm to stiff; dry. (possibly a combination of fill and in-situ).
1.70						
2			SPT 9,3/20,- N = R	ROCK		SANDSTONE (tuffaceous); highly weathered with extremely weathered interbeds, occasional clayey seams; extremely weak; fine grained; yellow brown and dark brown.
3						
3.50				ROCK		- becomes highly weathered; very weak. META-SILTSTONE/MUDSTONE; with tuffaceous sandstone laminations; moderately weathered; thinly bedded; fractured; dark grey/dark grey brown.
4						
5						NOTE: Slow drilling for a TC bit below 3.5m. No refusal - borehole terminated at 4.5m.

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END at 4.50

SAMPLE OR TEST
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v : visual
 l : laboratory

WATER

Water Table
 Water Inflow

FIELD SUPERVISOR:

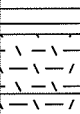
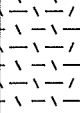
C.KARWAJ

PROJECT COORDINATOR:

M.RAHIMI

SHEET 1 OF 1 SHEETS
 SCALE 1 : 25

PROJECT: MANILLA HOSPITAL
DATE: 28.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OF TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0	No Groundwater Encountered	TC	SPT 7,13,5/80 N = R	FILL		GRAVEL in clayey silty sand matrix; brown; loose; dry.
0.45				CI/GC (v)		GRAVELLY SILTY CLAY; red brown and yellow brown; very stiff; dry.
1.00				ROCK		SANDSTONE (tuffaceous); extremely weathered; extremely weak; fine grained.
1.20				ROCK		- becomes highly weathered; extremely weak to very weak; yellow brown and dark brown.
3.00				ROCK		META-SILTSTONE; becomes highly weathered to moderately weathered; fractured; dark grey brown.
3						NOTE: Hard drilling for TC bit below 3m. TC bit refusal at 3.3m.
4						DRAFT
5						

SAMPLE OR TEST
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 D.....Disturbed
 SPT.....Standard Penetration Test
 CPT.....Cone Penetration Test

v : visual
 l : laboratory

WATER
 Water Table
 Water Inflow

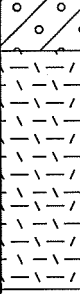
FIELD SUPERVISOR: C.KARWAJ
PROJECT COORDINATOR: M.RAHIMI
 SHEET 1 OF 1 SHEETS
 SCALE 1 : 25

GEOTECHNICAL & ENVIRONMENTAL						BOREHOLE	B8
PROJECT: MANILLA HOSPITAL			DATE: 28.11.08				
LOCATION: COURT STREET MANILLA			SURFACE RL:				
CONTRACTOR: E.B.S.		OPERATOR: R.LOVETT		EQUIPMENT: PIONEER P80			

DEPTH (m)	WATER	BIT	SAMPLE OF TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0				FILL		SILTY SAND with gravel; small boulder sized concrete fragments; grey brown; very loose; dry. 0.30
				GC/CI (v)		GRAVEL in a sandy silty clay matrix; gravel concentration varies - red brown, brown and yellow brown; firm; moist. (possibly fill) 0.80
1			SPT 3,8,9 N = 17	CI (v)		SANDY SILTY CLAY with gravel; red brown and brown; stiff to very stiff; just moist. (appears to be in-situ) 1.20
				GC (v)		CLAYEY GRAVEL ; gravel is coarse grained; matrix is red brown; very stiff; just moist. 1.40
2			SPT 5,7,11 N = 18	CI/CH (v)		SILTY CLAY ; with some embedded gravel; red brown and dark brown, minor yellow brown; very stiff; just moist. 2.30
		TC				
3				ROCK		SANDSTONE (tuffaceous); highly weathered; extremely weak to very weak; fine grained; dark brown/dark grey brown.
4			D			
						END at 4.50
5						NOTE: Firm to hard drilling conditions for a TC bit. No refusal - borehole terminated at 4.5m.

SAMPLE OR TEST U.....Undisturbed D.....Disturbed SPT.....Standard Penetration Test CPT.....Cone Penetration Test	v : visual l : laboratory	WATER Water Table Water Inflow	FIELD SUPERVISOR: C.KARWAJ PROJECT COORDINATOR: M.RAHIMI SHEET 1 OF 1 SHEETS SCALE 1 : 25
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PROJECT: MANILLA HOSPITAL
DATE: 28.11.08
LOCATION: COURT STREET MANILLA
SURFACE RL:
CONTRACTOR: E.B.S.
OPERATOR: R.LOVETT
EQUIPMENT: PIONEER P80

DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks
0	No Groundwater Encountered	TC	U	GM (v)		GRAVEL in silty sand matrix; dark brown; medium dense; dry. 0.30
				CI/CH (v)		SILTY CLAY , some sand; red brown; stiff; dry. 0.70
				CI/CH (v)		- becomes purplish red and yellow brown; appears to be extremely lightly cemented (hard); dry. 0.95
1			SPT 12,2/10, N = R	CI/GC (v)		GRAVEL in a clay matrix; coarse at start of layer, then finer, angular and subrounded rock fragments; yellow brown, grey and red brown; very stiff; just moist. 1.30
				GC (v)		GRAVEL becomes coarser; higher concentration. 1.90
2			SPT 6,14,- N = R	CI (v)		SILTY CLAY , some sand, trace of gravel; mottled pale grey, yellow orange brown and grey brown; very stiff to hard; dry. 2.40
				GC (v)		GRAVEL & COBBLES in clayey matrix; very dense; dry. 2.80
3				ROCK		SANDSTONE (tuffaceous); highly weathered; very weak; dark brown/dark grey brown. END at 3.60
4						NOTE: Hard drilling for a TC bit below 2.4m. TC bit refusal at 3.6m on what is inferred to be moderately weathered, weak bedrock.
5						

DRAFT

SAMPLE OR TEST

U.....Undisturbed
D.....Disturbed
SPT.....Standard Penetration Test
CPT.....Cone Penetration Test

v : visual
l : laboratory

WATER

➤ Water Table
➤ Water Inflow

FIELD SUPERVISOR:
C.KARWAJ
PROJECT COORDINATOR:
M.RAHIMI
SHEET 1 OF 1 SHEETS
SCALE 1 : 25

GEOTECHNICAL & ENVIRONMENTAL						BOREHOLE		B10	
PROJECT: MANILLA HOSPITAL						DATE: 28.11.08			
LOCATION: COURT STREET MANILLA						SURFACE RL:			
CONTRACTOR: E.B.S.						OPERATOR: R.LOVETT		EQUIPMENT: PIONEER P80	
DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks			
0	No Groundwater Encountered	TC	SPT 10/140, - N = R	GM (v)		GRAVEL in a silty matrix, with roots; dark brown and brown grey; loose; dry. 0.25			
				CI/GC (v)		GRAVELLY SILTY CLAY ; red brown, some yellow brown and grey; stiff; dry to moist 0.70			
1				CH (v)		SILTY CLAY , some fine gravel; yellow brown, brown and red brown; very stiff; dry. 1.10			
				GC (v)		GRAVEL and COBBLES in a clayey matrix; very dense; dry. END at 1.30			
2						NOTE: Very hard drilling conditions for a TC bit below 1.1m. TC bit refusal on a cobble at 1.3m.			
3						DRAFT			
4									
5									
			SAMPLE OR TEST U.....Undisturbed D.....Disturbed SPT.....Standard Penetration Test CPT.....Cone Penetration Test	v : visual l : laboratory	WATER Water Table Water Inflow	FIELD SUPERVISOR: C.KARWAJ PROJECT COORDINATOR: M.RAHIMI SHEET 1 OF 1 SHEETS SCALE 1 : 25			

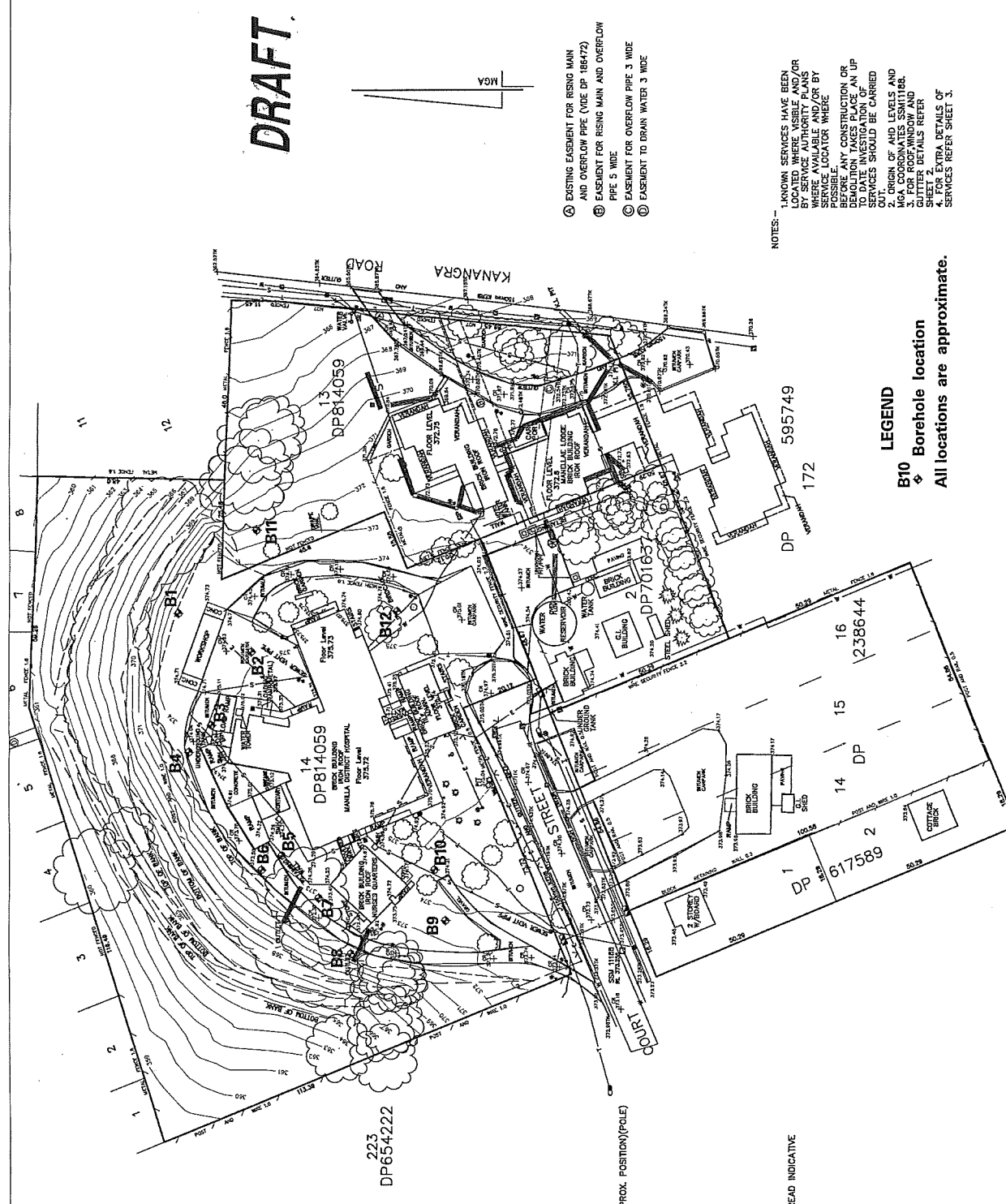
GEOTECHNICAL & ENVIRONMENTAL					BOREHOLE		B11	
PROJECT: MANILLA HOSPITAL					DATE: 28.11.08			
LOCATION: COURT STREET MANILLA					SURFACE RL:			
CONTRACTOR: E.B.S.					OPERATOR: R.LOVETT		EQUIPMENT: PIONEER P80	

DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks	
0				FILL		CLAYEY SILT with gravel; dark grey; uncontrolled (soft); very moist.	0.40
			SPT 2,3,5 N = 8	CH (v)		SILTY CLAY, trace of embedded gravel; red brown; soft to firm; very moist.	0.90
1				CH (v)		GRAVELLY SILTY CLAY; red brown and yellow brown; stiff; moist.	1.50
			SPT 6,5/50,- N = R	GC (v)		GRAVEL in a clayey matrix; yellow brown, grey and red brown; very stiff; moist.	1.90
2				GC (v)		- higher concentration of gravel; gravel becomes coarse, ranging to small cobble size.	2.50
			SPT 4/5,-,- N = R	GC (v)		- gravel becomes fine to coarse; matrix is hard.	3.20
3				ROCK		SANDSTONE (tuffaceous); extremely weathered; extremely weak; (behaves as a very dense silty sand with clay and evident rock structure); orange brown and light grey.	3.60
4				ROCK		SANDSTONE; highly weathered with rare extremely weathered with interbeds of meta-siltstone/mudstone.	END at 4.50
5						NTOE: Only firm to hard drilling conditions for a TC bit. No refusal - borehole terminated at 4.5m. SPT refusals in gravel.	

SAMPLE OR TEST U.....Undisturbed D.....Disturbed SPT.....Standard Penetration Test CPT.....Cone Penetration Test	v : visual l : laboratory	WATER Water Table Water Inflow	FIELD SUPERVISOR: C.KARWAJ PROJECT COORDINATOR: M.RAHIMI SHEET 1 OF 1 SHEETS SCALE 1 : 25
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GEOTECHNICAL & ENVIRONMENTAL						BOREHOLE B12	
PROJECT: MANILLA HOSPITAL				DATE: 28.11.08			
LOCATION: COURT STREET MANILLA				SURFACE RL:			
CONTRACTOR: E.B.S.		OPERATOR: R.LOVETT		EQUIPMENT: PIONEER P80			
DEPTH (m)	WATER	BIT	SAMPLE OR TEST	SOIL GROUP	GRAPHIC LOG	SOIL DESCRIPTION Soil type, colour, consistency, grainsize, moisture, remarks	
0 1 2 3 4 5	No Groundwater Encountered	TC	SPT 19,- N = R	FILL		SILTY SAND with some clay (topsoil) and roots; dark brown; very loose; moist. 0.30	
GM (v)					GRAVEL in a minor clayey silt matrix, tree roots; dark brown; very loose; moist. 0.80		
GC/CI (v)					GRAVEL in a silty clay matrix; matrix varies - grades in pockets/lenses to gravelly clay; red brown and yellow brown; very stiff/dense; dry. 1.30		
ROCK					SANDSTONE (tuffaceous); extremely weathered; extremely weak; fine grained; yellow brown and dark brown. END at 1.50		
NOTE: Borehole terminated at 1.5m - no refusal. DRAFT							
SAMPLE OR TEST U.....Undisturbed D.....Disturbed SPT.....Standard Penetration Test CPT.....Cone Penetration Test				v : visual l : laboratory		WATER Water Table Water Inflow	
						FIELD SUPERVISOR: C.KARWAJ PROJECT COORDINATOR: M.RAHIMI SHEET 1 OF 1 SHEETS SCALE 1 : 25	

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LEGEND
B10 ♦ Borehole location
 All locations are approximate.

NOTES:—

1. KNOWN SERVICES HAVE BEEN LOCATED WHERE VISIBLE AND/OR BY SERVICE AUTHORITY PLANS WHERE AVAILABLE AND/OR BY SERVICE LOCATOR WHERE AVAILABLE.
2. BEFORE ANY CONSTRUCTION OR DEMOLITION TAKES PLACE AN UP TO DATE INVESTIGATION OF SERVICES SHOULD BE CARRIED OUT.
3. 1. ORIGIN OF AND LEVELS AND MGA COORDINATES SSN1188.
3. 3. FOR ROOF WINDOW AND GUTTER DETAILS REFER TO DRAWING 1/10.
4. FOR EXTRA DETAILS OF SERVICES REFER SHEET 3/.

- Ⓐ EXISTING EASEMENT FOR RISING MAIN AND OVERFLOW PIPE (VIDE DP 186472)
- Ⓑ EASEMENT FOR RISING MAIN AND OVERFLOW PIPE 5 WIDE
- Ⓒ EASEMENT FOR OVERFLOW PIPE 3 WIDE
- Ⓓ EASEMENT TO DRAIN WATER 3 WIDE

LEGEND

SSM 11105
RL 373.255
E. 282848.045
N. 6598314.054

	WATER TAP
	ELECTRIC LIGHT POLE
	TELECOMMUNICATIONS PITS
	FENCE (TYPE AND HEIGHT)
	TELEPHONE CABLES
	(INCLUDING OPTIC FIBRE)
	(APPROXIMATE POSITION)
	OVERHEAD ELECTRICITY (APPROXIMATE POSITION)
	UNDERGROUND ELECTRICITY
	WATER
	STORMWATER PIPE
	SEWER
	TREE - DRIP LINE
	TREE - DIAMETER AND SPREAD
	SEE SHEET 3 FOR HEIGHTS
	SHRUB
	SURFACE INLET PIT
	HYDRANT
	SEWER MANHOLE
	SEWER INSPECTION LID
	KERB INLET PIT
	WATER METER
	TOP OF KERB LEVEL
	CROWN OF ROAD LEVEL