

Statement of Environmental Effects
Remediation of Fig Tree Park Stage 2
Marina Precinct, Honeysuckle



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1.0 Introduction

This Statement of Environmental Effects (SEE) is lodged with the Department of Planning in support of a Development Application by the Honeysuckle Development Corporation to remediate an area of land referred to as Fig Tree Park Stage 2.

Fig Tree Park is on Lot 105 in DP 1015391, a copy of which is included in Appendix B of this SEE. A Contamination Delineation and Remedial Action Plan (RAP) has been prepared by RCA Australia for the site; a copy of which has been enclosed with this application. The RAP details the contamination levels across the site and makes recommendation for the remediation of the land via a method referred to as Cap and Contain.

Appendix A of the RAP contains a site plan, indicating the area of the site which requires remediation. The Cap and Contain method of remediation involves the placement of a high visibility identification layer of geofabric or similar membrane over the contaminated soil, followed by a 0.5m layer of clean fill in order to prevent contact with the soil. Given the site area of approximately 5,350m², the works would require the placement of an estimated 2,675m³ of clean fill.

The site is currently vacant; however Fig Tree Park Stage 2 is proposed to be developed for public use as a recreational parkland. The amount of fill placed at the site for the purposes of remediation would be incorporated into the landscaping works for the park. The goal of the Remedial Action Plan is to render the soil and groundwater suitable for the proposed use. The Honeysuckle Development Corporation is the landowner.

2.0 Background

The entire area of Fig Tree Park is approximately 8,652m². Following initial testing to delineate contamination, it was discovered that different contaminants existed in different regions of the site. Subsequently, the site was divided into 2 areas referred to as Fig Tree Park Stage 1, and Fig Tree Park Stage 2. The division of the site was undertaken for the purposes of staging the different remediation works required across the entire site.

Fig Tree Park Stage 1 has been remediated through excavation of the contaminated soil. Following excavation, soil containing Poly Aromatic Hydrocarbon (PAH) contamination was disposed of at the Summerhill Waste Disposal Facility as solid waste, and soil containing Total Petroleum Hydrocarbon (TPH) contamination was land-farmed on the land known as Fig Tree Park Stage 2. The remedial works were validated by RCA Australia in October 2003.

The enclosed RAP for Fig Tree Park Stage 2 is based on the results of an Environmental Site Assessment (ESA) by Parsons Brinckerhoff, and also on a previous RAP by RCA Australia. The RAP concludes that Fig Tree Park Stage 2 requires remediation to contain polycyclic aromatic hydrocarbon (PAH) contaminants in the soil.

The RAP describes the soil at the site as being comprised of silty and medium grained sandy fill and natural sediments. PAH contaminants in the soil exist at varying depths, as shown on Drawing No. 4 in Appendix A of the RAP, enclosed with this application.

RCA Australia have recommended the remediation of the contaminated material by a method referred to as Cap and Contain. This process involves the placement of a 0.5m layer of clean fill across the site in order to 'Cap and Contain' the contaminated soil underneath. HDC currently has a stockpile of soil at the Fig Tree Park site which is being remediated. Upon completion of the remediation process, and following positive validation testing, it is anticipated that this soil will be able to be used as part of the fill required for the remediation of Fig Tree Park Stage 2.

Plans illustrating the approximate area of remediation are included in Appendix A of the Remedial Action Plan enclosed with this application.

3.0 Location and Description

The subject site has also been referred to as 'Tree of Knowledge Park', however for the purposes of this application, the site is referred to as Fig Tree Park. The site has been divided into stages, to better manage the remediation of the soil. Fig Tree Park Stage 1 is approximately 3,302m², and lies at the northern end of the site. Fig Tree Park Stage 2 is at the southern side of the site, and is 5,350m².

Fig Tree Park Stage 2 forms part of Lot 105 in DP 1015391, which has a total area of approximately 8,652m².

The land is predominantly flat and is zoned 6(a) Open Space and Recreation under the Newcastle Local Environment Plan (LEP) 2003.

The site is situated on the eastern side of Hannell St Wickham, to the west of Newcastle Harbour. The Mariner Apartments lie directly to the north of Fig Tree Park Stage 1, and the Throsby development site lies to the south of Fig Tree Park Stage 2. A Site Location Plan is included in Appendix A of the attached RAP.

4.0 Present and Previous Site Uses

Land to the east of Hannell St has previously been associated with foreshore usage. The site comprises varying levels of fill, containing slag, wood, sandy gravel, and rubble. Alluvial sands lie beneath this layer of fill.

The land is currently vacant and unused; however Fig Tree Park Stage 2 is proposed to be developed for public use as a recreational parkland and open space.

The soil is contaminated, and the Honeysuckle Development Corporation is seeking to remediate this land and obtain a Site Audit Statement to ensure the land is suitable for its planned future use.

5.0 Contamination Summary

The results from the RCA site investigations present the following findings:

- Polycyclic Aromatic Hydrocarbons (PAHs) were encountered at varying depths in the fill layer across the Stage 2 site.
- Concentrations of benzo(a)pyrene (Bap) were discovered in excess of the Recreational Open Space and Playing Fields Guidelines.
- Concentrations of the above contaminants exceed the relevant acceptance criteria, and the site requires remediation.
- Heavy metals were encountered in the groundwater across the site, however RCA consider this a regional phenomenon in the groundwater of the Newcastle Harbour area. RCA Australia stated that groundwater does not require specific remediation, however groundwater monitoring should be undertaken following remediation to confirm that contaminant concentrations at the site have not increased.

6.0 Details of Remedial Action Plan

The enclosed Remedial Action Plan prepared by RCA Australia details the requirements for remediation work at the site.

RCA's recommended remedial option for the site is via a process referred to as Cap and Contain. The Cap and Contain method involves the placement of a high visibility marker layer such as geofabric over the contaminated soil, followed by a minimum capping layer of 0.5m of clean fill.

The Cap and Contain method minimises exposure to the soil, and subsequently mitigates the risk to human health. A layer of 0.5m of clean fill is considered suitable as a remediation method due to the following:

- Roots from vegetables are unlikely to extend beyond a depth of 0.5m;
- Standard gardening activities are unlikely to penetrate beyond a depth of 0.5m.

The site area of Stage 2 is approximately 5,350m² and to cap the site with 0.5m of clean fill will require the placement of an estimated volume 2,675m³ of fill. HDC currently has a stockpile of approximately 2000 tonnes of soil on Stage 2, which is being land-farmed following its excavation during remediation of Fig Tree Park Stage 1. Following successful remediation of the stockpile, it is anticipated that this material will be able to be used as fill within the capping layer. The stockpile will have to be validated to ensure that the soil has been remediated to an acceptable level, and is suitable for reuse in the capping layer of fill.

Commensurate with the redevelopment of the land as a park for public recreation, the site is to be filled and landscaped. It is anticipated that the capping layer will be able to be incorporated into the fill required in the landscaping works.

Following the Cap and Contain process, a Site Management Plan will be produced for the site, detailing the management of the contaminated material should future excavations extend to a depth greater than 0.5m, through the marker layer.

7.0 Site Management

7.1 Site Stormwater Management

A limited stormwater network exists on site, consisting of pits in the guttering. The contractor is to prevent any runoff from contaminated or potentially contaminated material entering the stormwater system. Potential causes of stormwater contamination include any stockpiles of material on site. No amplification of site services is associated with the remediation works. It is noted that natural surface drainage over the site is to the East, towards Newcastle Harbour.

7.2 Site / Environmental Management Plan

Clean fill is to be covered and stored on site, away from stormwater lines. Any material temporarily stored on site will be stabilised to prevent contamination, erosion or dispersal of the material into the nearby waterway.

Following successful remediation of the site, a Site / Environmental Management Plan will be produced to address future exposure to the soil if excavations extend beyond a depth of 0.5m.

7.3 Soil Transportation

Vehicular access to the site shall be via Honeysuckle Drive. All vehicles leaving the site will be required to drive over a grid in order to vibrate any potentially contaminated material from the wheels. The grid is to be cleaned daily or more frequently as required. It may become necessary to allow for street cleaning in the case of grid failure.

All drivers are to be appropriately qualified and accredited, and are to maintain records of all soil import delivery details for presentation to the site manager as required.

Vehicles being unloaded shall stand wholly within the premises and under no circumstances are vehicles to be unloaded at the kerbside, or across the public footpath.

7.4 Noise Control Plan

The site is located adjacent to Newcastle Harbour, and is in a vacant area. The generation of vehicular and machinery noise is anticipated, however the impact of this noise will be minimal. Remediation works will be undertaken 7am to 5pm weekdays, and from 8am to 1pm Saturdays. No work is to be undertaken on Sundays or Public Holidays. All vehicles are to be registered and within the permissible noise emission levels.

7.5 Dust Control Plan

The works have the potential to generate dust, the production of which is to be mitigated through:

- Covering loads entering or leaving the site;
- Using water sprays;
- Using Hessian cloth around the site boundary;
- Using temporary covers to stockpiles.

Consideration will be given to ceasing works if winds over the site exceed 10m/s.

7.6 Odour Control Plan

RCA Australia considers it unlikely that any odours generated by the works will affect off site workers. If a complaint is received regarding the generation of odours, then the following controls may be implemented:

- Use of an odour suppressant;
- Covering contaminated material;
- Photo-Ionisation Detector assessment to determine the significance of odours.

7.7 Occupational Health and Safety Plan

Signage shall be erected in a prominent position on the work site stating that unauthorised entry to the site is prohibited. The signage is to show the name and contact details of the contractor, and is to remain at the site for the duration of the remediation works.

Smoking will not be permitted in the areas of excavation, and all personnel are to be required to wear protective clothing, and to wash thoroughly before meal breaks. All site personnel are to hold appropriate qualifications relevant to the work being undertaken.

All relevant Occupational Health and Safety legislation and WorkCover guidelines are to be adhered to throughout the duration of the works.

7.8 Post Remediation

Following remediation by the Cap and Contain method, a Site / Environmental Management Plan will be produced for Fig Tree Park, describing the remediation works, and the management of future excavations at the site which exceed 0.5m in depth.

8.0 Conclusion

This Statement of Environmental Effects has detailed the proposal to remediate the parcel of land referred to as Fig Tree Park Stage 2, Wickham. The land is currently vacant; however it is proposed to be developed for public use as recreational parkland.

The Remedial Action Plan for the site prepared by RCA Australia has provided the recommendation for the remediation of the soil by the Cap and Contain method. This will involve the placement of a high visibility marker layer, followed by a minimum capping layer of 0.5m of clean fill across the site. A total volume of 2,675m³ of clean fill will be placed to cap the contaminated soil.

There is currently a stockpile of approximately 2,000 tonnes of material being remediated on Fig Tree Park Stage 2. Following successful remediation and validation testing, it is anticipated that this material will be suitable for reuse in the capping layer for the remediation of Stage 2.

The entire capping layer will form part of the filling and future landscaping works associated with the redevelopment of the site to a recreational parkland for public use.

The works described in this SEE will facilitate the redevelopment of the site, contributing to the amount of quality public open space in the foreshore area. The completion of Fig Tree Park Stage 2 will enhance the Honeysuckle precinct, and this application therefore requests the endorsement and support of the Department of Planning in its approval.

9.0 Appendices

Appendix A: Site Photographs

Appendix B: Copy of DP 1015391

Appendix C: Copy of Certificate of Title Identifier 105/1015391

Appendix D: Remedial Action Plan: Fig Tree Park Stage 2, RCA Australia

Appendix A: Site Photographs



Photo 1: Southern perspective of site.

Fence in foreground delineates Stage 1 from Stage 2.



Photo 2: Western perspective



Photo 3: Southern Perspective. Showing promenade and Throsby Shed in background.



Photo 4: Eastern Perspective towards Newcastle Harbour.

DP1015391

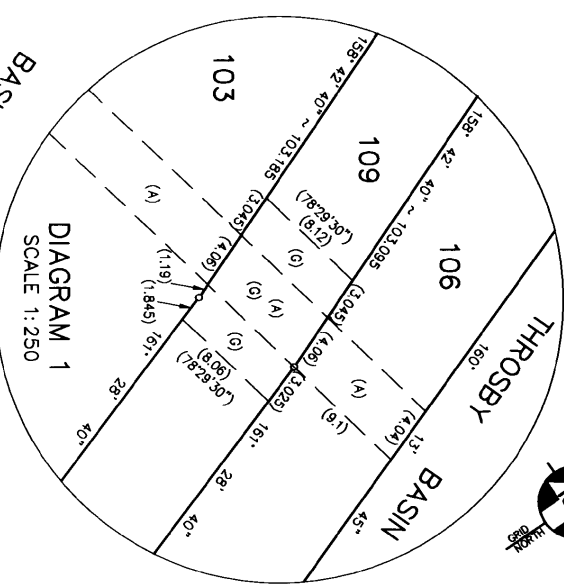
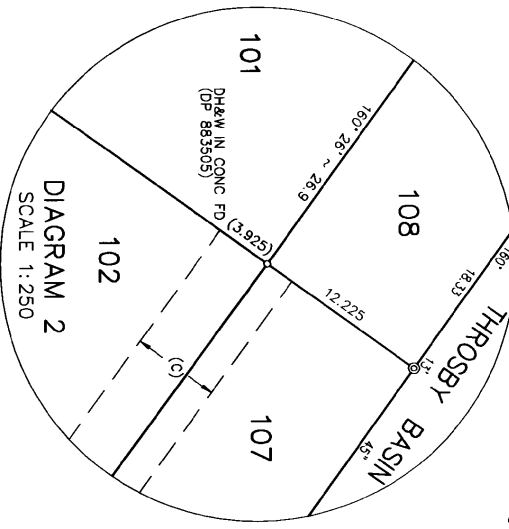
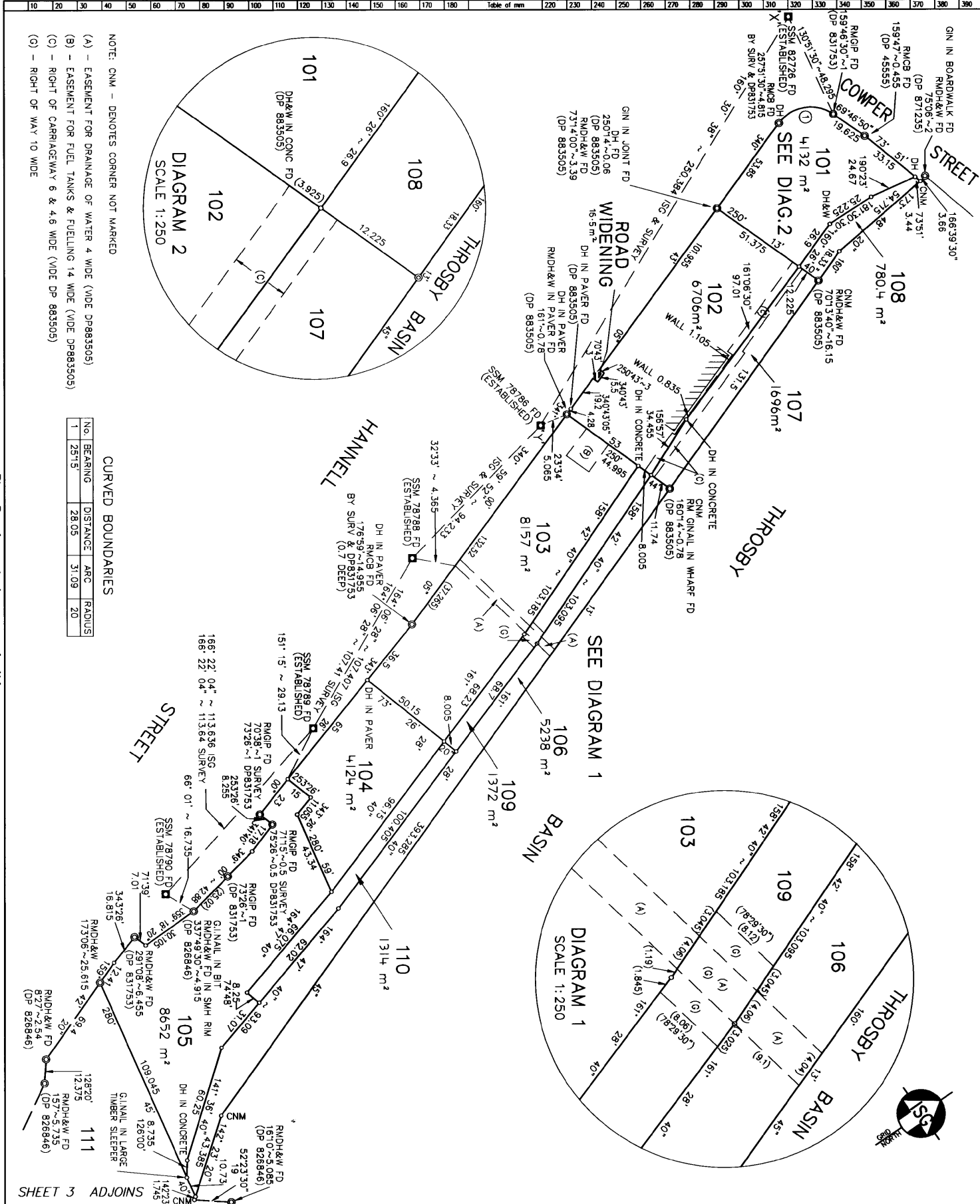
Registered  2.8.2000

This is sheet 2 of my plan in 3 sheets
dated 10TH APRIL 2000

My location

Surveyor registered under Surveyors Act 1929
This is sheet 2 of the plan in 3 sheets
covered by Subdivision Certificate No.

Authorised Person/General Manager/Accounted Certifier
For use where space is insufficient in any panel on
Plan Form 2



CURVED BOUNDARIES

No.	BEARING	DISTANCE	ARC	RADIUS
1	251°5'	28.05	31.09	20

NOTE: CNM - DENOTES CORNER NOT MARKED

(A) - EASEMENT FOR DRAINAGE OF WATER 4 WIDE (VIDE DP883505)

(B) - EASEMENT FOR FUEL TANKS & FUELLING 14 WIDE (VIDE DP883505)

(C) - RIGHT OF CARRIAGEWAY 6 & 4.6 WIDE (VIDE DP 883505)

(c) - RIGHT OF WAY 10 WIDE

SHEET 3 ADJOINS

Reduction	Ratio
1	1250

DP1015391

Registered 28.02.2000



This is sheet 3 of my plan in 3 sheets

My Gibson

Surveyor registered under Surveyors Act 1929

This is sheet 3 of the plan in 3 sheets covered by Subdivision Certificate No.

Authorised Person/General Manager/Accredited Certifier
For use where space is insufficient in any point on Plan Form 2.

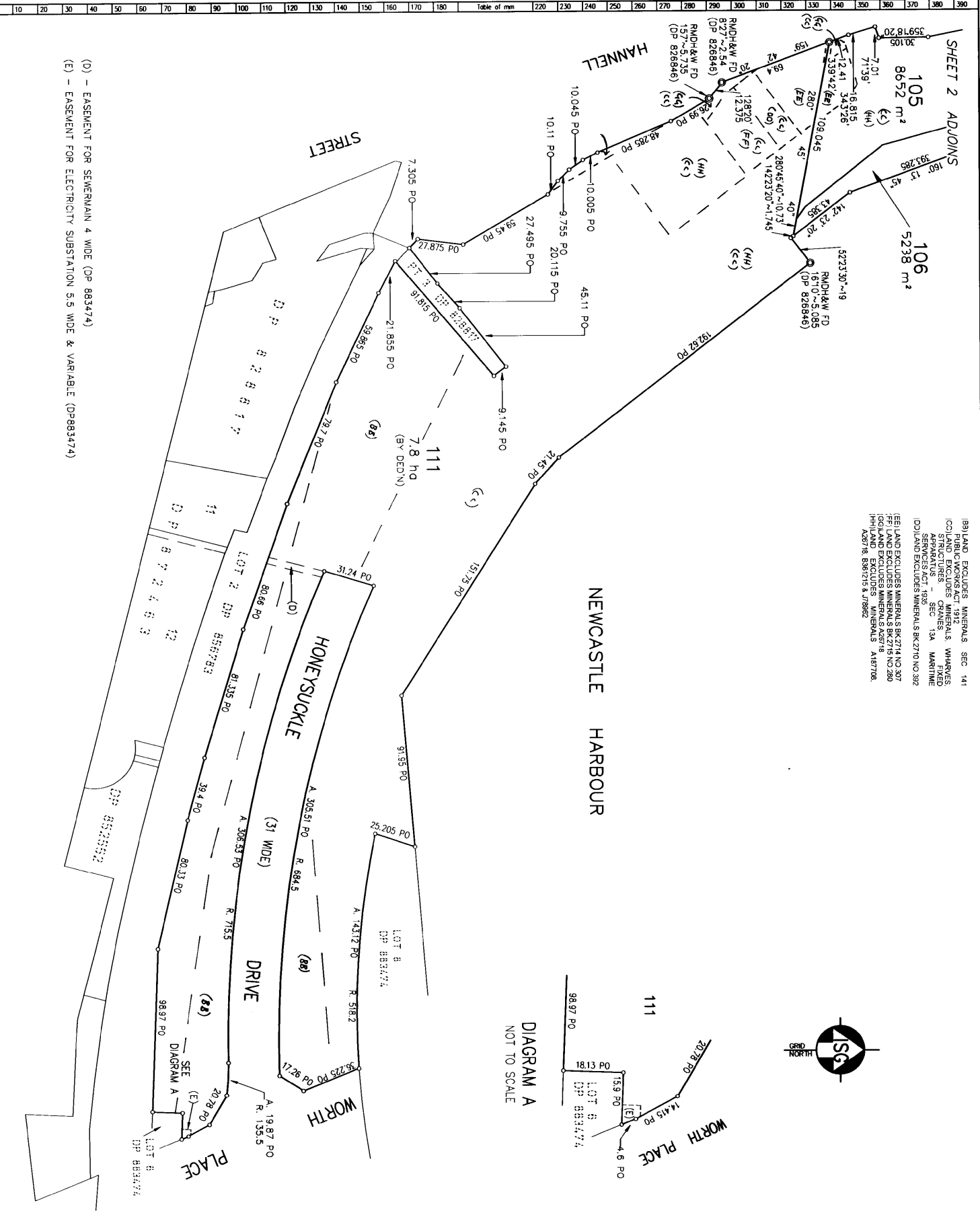
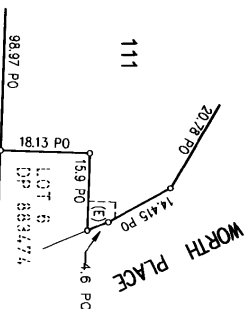


DIAGRAM A
NOT TO SCALE



(D) - EASEMENT FOR SEWERMAN 4 WIDE (DP 883474)
(E) - EASEMENT FOR ELECTRICITY SUBSTATION 5.5 WIDE & VARIABLE (DP 883474)

Reduction Ratio : 1:500

SURVEYOR'S REFERENCE : 16879

CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1900



TORRENS TITLE

REFERENCE TO FOLIO OF THE REGISTER

IDENTIFIER 105/1015391

EDITION

1

DATE OF ISSUE

2/8/2000

I certify that the person described in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set forth in that Schedule) in the land within described subject to such exceptions, encumbrances, interests and entries as appear in the Second Schedule and to any additional entries in the Folio of the Register.

David Mulesky



REGISTRAR GENERAL

LAND

LOT 105 IN DEPOSITED PLAN 1015391
AT NEWCASTLE
LOCAL GOVERNMENT AREA: NEWCASTLE
PARISH OF NEWCASTLE COUNTY OF NORTHUMBERLAND
TITLE DIAGRAM: DP1015391

FIRST SCHEDULE

HONEYSUCKLE DEVELOPMENT CORPORATION

SECOND SCHEDULE

1. LAND EXCLUDES MINERALS, WHARVES, STRUCTURES, CRANES & FIXED APPARATUS REFERRED TO IN SEC. 13A MARITIME SERVICES ACT, 1935 AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
2. BK 2714 NO 307 LAND EXCLUDES MINERALS AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
3. 187708 LAND EXCLUDES MINERALS AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
4. A26718 LAND EXCLUDES MINERALS AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM

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