



CONSTRUCTION CERTIFICATE APPLICATION

Made under the Environmental Planning and Assessment Act 1979 Sections 109C
(1) (b), 81a (2) and 81a (4)

Pittwater Council

PO Box 882, Mona Vale NSW 1660
Tel: (612) 9970 1111
Fax: (612) 9970 7150
Internet: www.pittwaterlga.com.au
Email: pittwater_council@pittwater.nsw.gov.au

SITE DETAILS

| | | |
|-------------|------------|-----------------------|
| Unit/Suite: | Street No: | Street: |
| | 101-111 | ORCHARD ST |
| Suburb: | Lot No: | Deposit /Strata Plan: |
| WARRIEWOOD | 2+3 | 715324 / 734891 |

DEVELOPMENT CONSENT

| | |
|-----------------------------|---------------------|
| Development Application No: | Determination Date: |
| N0457/05 | 4/4/06 |

APPLICANT DETAILS

| | |
|-------------------------|------------------------|
| Name/Company: | Contact Person: |
| D M & V BURANO | WALLY BURANO |
| Postal Address: | Contact Numbers: |
| | Phone (H/B): 9970 6670 |
| | Mobile: 0404 498 517 |
| | Fax: 9997-6090 |
| Signature of Applicant: | Date: |
| [Signature] | 17/10/06 |

OWNERS DETAILS

| | |
|---------------------|-----------------------------|
| Name: | If Company, contact person: |
| | |
| Postal Address: | Contact Numbers: |
| 101 ORCHARD ST | Phone (H/B): 9970 6670 |
| WARRIEWOOD NSW 2102 | Mobile: 0404 498 517 |
| | Fax: 9997 6090 |

As the owner of the land to which this application relates, I consent to this application. I also give consent for the authorised Council Officer to enter the land to carry out inspections.

| | |
|----------------------|----------|
| Signature of Owners: | Date: |
| [Signature] | 17/10/06 |

If more than one owner, every owner must sign. If the owner is a company, the form must be signed by an authorised director and the common seal must be stamped on this application.
If the property has been recently purchased, written confirmation from the purchaser's Solicitor must be provided.
If the contracts have been exchanged for the purchase of the land, the current owner is to sign the application.

23 OCT 2006
PITTWATER COUNCIL

DEVELOPMENT DETAILS

| | |
|---|--|
| Type of Work: | <input type="checkbox"/> Building Work |
| OR | |
| | <input checked="" type="checkbox"/> Subdivision Work |
| Description of proposal – (Provide brief, concise details): | |
| <p>CONSTRUCTION OF A PRIVATE ACCESSWAY WITHIN THE EXISTING RIGHT OF CARRIAGEWAY</p> | |

WHO WILL BE DOING THE BUILDING WORKS?

| | |
|---|---|
| <input type="checkbox"/> Owner Builder | |
| Owner Builders Permit No: | |
| Copy of Owner Builders permit attached: | <input type="checkbox"/> Yes <input type="checkbox"/> No – to be provided with Notice of Commencement Form |
| <i>If you are an Owner-Builder for the residential building work exceeding \$5000 you must apply for a permit at NSW Office of Fair Trading, 1 Fitzwilliam Street, Paramatta NSW 2150 Australia. Tel: 61 2 98950111 Fax: 61 2 9895 0222.</i> | |

OR

| | |
|--|--|
| <input checked="" type="checkbox"/> Licensed Builder | |
| Builder's License Number | |
| Name of Builder: | Phone: |
| Contact person: | Mobile: |
| Address: | Fax: |
| Insurance Company: | Insurance Certificate attached: <input type="checkbox"/> Yes <input type="checkbox"/> No – to be provided with Notification of Commencement form |
| <i>If you are using a licensed builder for residential building work exceeding \$12,000 you must obtain Home Building Act Insurance. A certificate of insurance must be provided with this application or submitted with the Notification of Commencement form.</i> | |

VALUE OF PROPOSED DEVELOPMENT

Value of Works: \$200-000- (including full cost of labour and materials)

DO YOU NEED TO PAY THE BUILDING INDUSTRY LONG SERVICE LEVY?☐ Yes☒ No*Only required if the development involves building works exceeding \$25,000.00.*

CC 0545/06

OFFICE USE ONLY

| Fee Type | Cashier's Code | Fee Amount |
|--|--------------------|---------------------|
| Construction Certificate Application Fee | TCER | \$1364 |
| Long Service Levy Fee | QLSL | \$875 |
| Driveway/Street Levels | ESTR | |
| Sec 94 Contributions | | |
| Bonds/Guarantees | | |
| Other Fees | | |
| TOTAL | | \$2239 |
| Date of Receipt: | Receipt No: | Accepted By: |

PRIVACY AND PERSONAL INFORMATION PROTECTION NOTICE

| | |
|---|---|
| Purpose of collection: | To enable Council as the consent authority to assess your proposal. |
| Intended recipients | Council Staff and any other relevant government agency that may be required to assess the proposal. |
| Supply: | The information is required by legislation. |
| Consequence of Non-provision: | Your application may not be accepted, not processed or rejected for lack of information |
| Storage: | The Pittwater Council will store details of the application and any subsequent decision in a register that can be viewed by the public. |
| Retention period: | Hard copies of the application will be destroyed after 7 years and electronic records will be kept indefinitely. |
| Please contact Council if this information you have provided is incorrect or changes. | |

R.203622 20/10/06.



**Pittwater
Council**

ABN 61 340 837 871 Telephone (02) 9970 1111 Facsimile (02) 9970 7150
Postal Address: P.O. Box 882, Mona Vale NSW 1660, DX 9018 Mona Vale

pittwaterlga.com.au e-mail: pittwater_council@pittwater.nsw.gov.au

Nathan Huon, Project Manager (Land Release Projects)
8am to 5:00pm Mon - Fri
Phone 9970 1283

9 October 2006

L G Parker & Co Solicitors
1st Floor
644 Pittwater Road
BROOKVALE NSW 2100

Attention Mileva Bubalo

Dear Sir / Madam

**Re: Development Consent N0457/05 - Construction of private access way within
existing rights of carriageway at 109 - 111 Orchard Street, Warriewood –
Deferred Commencement Conditions**

I refer to the revised draft Transfer Granting Easement and Geotechnical Report submitted to Council on 29 September 2006 as required by the deferred commencement terms of the above consent and our conversation today concerning same.

Council has reviewed the documents and considers that these submissions satisfy the deferred commencement conditions A and B of the above consent. As discussed the consent for construction of the access road and associated works is now considered operative by Council and the issue of a construction certificate can be considered by your Principal Certifying Authority.

You will note that condition F10 of the subdivision consent N0152/02 requires that the registration of the appropriate easements are required prior to the release of the Subdivision Certificate.

Should you require any further clarification please do not hesitate to contact me.

Yours faithfully

Nathan Huon
PROJECT MANAGER (LAND RELEASE PROJECTS)



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Business Hours:

8.00am to 5.30pm, Monday to Thursday

8.00am to 5.00pm, Friday

DA No: N0457/05

4 April 2006

VLADO BUBALO
DRAGAN BUBALO
MILEVA BUBALO
107 ORCHARD STREET
WARRIEWOOD NSW 2102

Dear Sir/Madam

Development Application for Construction of a private access way within the existing rights of carriageway at 109 – 111 ORCHARD STREET WARRIEWOOD NSW 2102.

I am pleased to advise that this application has been approved and I attach for your assistance a copy of the Development Consent, the conditions of approval and a copy of the approved plan.

As building works are involved, prior to proceeding with the proposal, it will be necessary for you to lodge a Construction Certificate Application with either Council or an accredited Certifier.

I take this opportunity to direct your attention to Section C of the Consent which details the matters to be satisfied prior to issue of the Construction Certificate.

In addition, pursuant to the provisions of Section 80(10A), of the Environmental Planning and Assessment Act, 1979, the Long Service Levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act, 1996, must be paid prior to issue of the Construction Certificate.

Based on your stated value of development ie \$250000 the Long Service Levy payable is \$875.00.

In the event that you have paid this levy direct to the Building Services Corporation, I will require proof of that direct payment.

You will also be required to furnish a copy of the Builders Warranty Insurance Certificate OR an Owner/Builder's permit from the Department of Fair Trading must be forwarded to Council prior to release of the Construction Certificate.

If an Owner/Builder's permit is to be applied for, application must be made direct to the Department of Fair Trading. You must quote Development Application No. N0457/05 and supply an unstamped plan with your application. The permit must then be presented to Council when collecting your plans.



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CONSENT NO: N0457/05

**ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979 (AS AMENDED)
NOTICE TO APPLICANT OF DETERMINATION
OF A DEVELOPMENT APPLICATION**

Applicants Name and Address: DRAGAN BUBALO, MILEVA BUBALO, VLADO BUBALO, 107
ORCHARD STREET, WARRIEWOOD 2102

Being the applicant in respect of Development Application No **N0457/05**

Pursuant to section 80(3) of the Act, notice is hereby given of the determination of a **Deferred
Commencement Consent** by Pittwater Council, as the consent authority, of Development Application

Construction of a private access way within the existing rights of carriageway.

At: 109 - 111 ORCHARD STREET, WARRIEWOOD (Lots 2 and 3 DP 734891) (Lot 2 of DP 715324)

Decision:

The Development Application has been determined by the granting of consent based on information provided by the applicant in support of the application, including the Statement of Environmental Effects, and in accordance with plans numbered: **4670 - 01, 4670 - 02, 4670 - 03, 4670 - 04, 4670 - 06, 4670 - 07, 4670 - 08, 4670 - 09, 4670 - 10, 4670 - 11, 4670 - 12, Issue C, Dated 08.11.05, prepared by Patterson Britton & Partners Pty Ltd, 4670-05, Issue D, Dated 08.11.05, prepared by Patterson Britton & Partners Pty Ltd as amended in red (shown clouded) or as modified by any conditions of this consent.**

The reason for the imposition of the attached conditions is to ensure that the development consented to is carried out in such a manner as to achieve the objectives of the Environmental Planning and Assessment Act 1979 (as amended), pursuant to section 5(a) of the Act, having regard to the relevant matters for consideration contained in section 79C of the Act and the Environmental Planning Instruments applying to the land, as well as section 80A of the Act which authorises the imposing of the consent conditions.

Endorsement of date of consent 04/04/2006

Mark Ferguson
GENERAL MANAGER

Please note that some sections of the Consent may require the lodgement of Building Component Certificates at various stages of the development. These Certificates must be returned to Council or the Accredited Certifier prior to issue of the Occupation Certificate or Subdivision Certificate. **You should also note that both Council and the Accredited Certifier will charge a fee for acknowledging compliance with conditions and the issue of the Occupation or Subdivision Certificates.** . You must nominate either Council or an accredited certifier prior to commencing work.

You will be required to notify Council a minimum of 2 days prior to your commencing work on the site.

If there are any matters relating to this approval which require further explanation, please contact me prior to commencing work on the site. Enquiries relating to the Construction Certificate application should be directed to Council's Customer Service or your private certifier.

Yours faithfully



Grant Walsh
DEVELOPMENT OFFICER



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PART 1

THE COMMENCEMENT OF THIS CONSENT IS DEFERRED UNTIL THE CONSENT AUTHORITY IS SATISFIED AS TO COMPLIANCE WITH THE FOLLOWING CONDITION/S:

The commencement of this consent is deferred until the consent authority is satisfied as to the compliance with the following conditions: -

- A. Written evidence that the adjoining land owner(s) will grant a drainage easement through their property, being Lot 2 DP 715324 and Lots 3 and 4 DP 734891, for the benefit of the private road.
- B. The submission of a geotechnical report prepared by an appropriately qualified person which meets the requirements of the Interim Geotechnical Risk Management Policy for Pittwater and concludes the development can be constructed/maintained in accordance with the Interim Geotechnical Risk Management Policy for Pittwater.

Upon receipt of evidence within 6 months from the date from this consent satisfying the above, the consent will become operative, subject to the conditions listed in Part 2 below.

The consent will lapse if evidence satisfying the above conditions is not received within the prescribed time frame.

NOTE: - Condition F10 of Consent No: N0152/02 will ensure that the drainage easement referred to in the Deferred Commencement condition will be created prior to the release of the Subdivision Certificate for 7 Orchard Street.



PART 2

Conditions of Approval

This consent is not an approval to commence building work. The works associated with this consent can only commence following the issue of the Construction Certificate.

Note: Persons having the benefit of development consent may appoint either a council or an accredited certifier as the principal certifying authority for the development or for the purpose of issuing certificates under Part 4A of the Environmental Planning and Assessment Act. When considering engaging an accredited certifier a person should contact the relevant accreditation body to ensure that the person is appropriately certified and authorised to act in respect of the development.

A. Prescribed Conditions:

1. All works are to be carried out in accordance with the requirements of the Building Code of Australia.
2. In the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, there is to be such a contract in force.
3. Critical stage inspections are to be carried out in accordance with clause 162A of the Environmental Planning & Assessment Regulation 2000. To allow a Principal Certifying Authority or another certifying authority time to carry out critical stage inspections required by the Principal Certifying Authority, the principal contractor for the building site, or the owner-builder must notify the Principal Certifying Authority at least 48 hours before building work is commenced and prior to further work being undertaken.
4. A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:
 - a. showing the name, address and telephone number of the Principal Certifying Authority for the work, and
 - b. showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
 - c. stating that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

5. Residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the Principal Certifying Authority for the development to which the work relates (not being the Council) has given the Council written notice of the following information:
 - a. in the case of work for which a principal contractor is required to be appointed:
 - i. the name and licence number of the principal contractor, and
 - ii. the name of the insurer by which the work is insured under Part 6 of that Act.



b. in the case of work to be done by an owner-builder:

- i. the name of the owner-builder, and
- ii. if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

6. If arrangements for doing the residential building work are changed while the work is in progress so that the information notified under subclause (2) becomes out of date, further work must not be carried out unless the Principal Certifying Authority for the development to which the work relates (not being the Council) has given the Council written notice of the updated information.
7. The hours of construction are restricted to between the hours of 7.00am and 5.00pm Monday - Friday and 7.00am to 1.00pm on Saturdays. No works are to be carried out on Sundays or Public Holidays. Internal building work may be carried out at any time outside these hours, subject to noise emissions from the building or works not being audible at any adjoining boundary.

B. Matters to be incorporated into the development and maintained over the life of the development:

- 1 A waste management plan as per Appendix 4 of the Warriewood Valley Urban Land Release Planning Context and Criteria is to be prepared and submitted to the Private Certifying Authority with the Construction Certificate application for all construction and site works including excavation and / or removal of existing waste and debris from the site, construction of roads, drainage facilities, buildings and other structures where waste may be generated.
- 2 Street lighting facilities to the development street frontages of the site and to the existing Public Road reserve are to be provided at the full cost of the developer and in accordance with the requirements of Energy Australia.
- 3 All services, including electrical and telecommunications for the proposed lots, shall be provided underground in accordance with the draft Warriewood Valley Development Control Plan. The location of any trenching shall have regard for future and proposed landscaping in the public domain.
- 4 The public footways and roadways adjacent to the site are to be maintained in a safe condition at all times during the construction phase. Pedestrian access is to be maintained at all times during the construction phase.

The adjustment of all public utilities and services is to be at the full cost of the developer.

The recommendation of the risk assessment required to manage the hazards as identified in Geotechnical Report which satisfied Part 1 requirement B of the deferred commencement be implemented over the life of the development.

C. Matters to be satisfied prior to the issue of the Construction Certificate:

Note: The issue of partial or limited Construction Certificates is not permissible under the terms of this consent unless otherwise specifically stated. All outstanding matters



referred to in this section are to be submitted to the accredited certifier together.
Incomplete Construction Certificate applications / details cannot be accepted.

1. Engineering plans and specifications for the construction of all roads, drainage and civil engineering works are to be submitted by the applicant.

Engineering plans and specifications for all roads, drainage and other civil engineering works within an existing Public Road reserve (including Orchard Street) must be submitted and approved in writing by the Council prior to the issue of any Construction Certificate.

Payment of the Engineering Plan Assessment fee (in accordance with Council's adopted Fees and Charges) is required prior to Council releasing the approved engineering plans.

The installation of traffic facility signs and markings, including parking signs and speed restrictions will require the approval of Council and Council's Traffic Committee prior to commencement of installation.

2. The plans required by Condition C1 are to include and provide for the following matters:
 - (i) The following works in relation to that part of the Orchard Street frontage of the development site and including the works in relation to the intersection access to the Development:
 - (a) Traffic management plan for the construction phase of the development.
 - (b) Kerb and Guttering (vertical faced kerb only will be permitted);
 - (c) Landscaping;
 - (d) Road shoulder and road pavement construction, including pavement design and treatments up to the road centre line;
 - (e) Footpath 1.5m wide;
 - (f) Associated drainage and
 - (g) Street landscape, including street lighting and sign posting;
3. The plans required under Condition C1 and C2 are to meet the objectives and requirements of:
 - I. *The Warriewood Valley Roads Master Plan;*
 - II. *Austroads;*
 - III. *AUSSPEC;*
 - IV. *DCP 21;* and
 - V. *DCP 29 Warriewood Valley Urban Land Release.*

and achieve a road design and landscaped effect consistent with the Warriewood Valley Concept Masterplan (Public Domain).

4. The engineering design and plans for road and drainage works must be certified as meeting the requirements of conditions C1, C2 and C3 by an experienced civil engineer who is NPER accredited by the Institution of Engineers (Australia).



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NOTE: Council may be prepared to consider an extension of this Consent period for a further 12 months, however, the request for extension would have to be received during the initial 2 year period.

5. To ascertain the date upon which the determination becomes effective, refer to Section 83 of the Environmental Planning and Assessment Act, 1979 (as amended).
6. Should any of the determination not be acceptable, you are entitled to request reconsideration under Section 82A of the Environmental Planning and Assessment Act, 1979. Such request to Council must be made in writing together with a \$500 fee, within 1 year from the date of determination.
7. If you are dissatisfied with this decision, Section 97 of the Environmental Planning and Assessment Act, 1979, gives you a right of appeal to the Land and Environment Court within 12 months of the date of endorsement of this Consent.
8. The approved plans must be submitted to a Sydney Water Quick Check agent or Customer Centre to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met. The approved plans will be appropriately stamped. For Quick Check agent details please refer to "Your Business" section of Sydney Water's web site at www.sydneywater.com.au then see Building & Renovating under the heading Building & Developing, or telephone 13 20 92.



3. Restoration of all damaged public infrastructure caused as a result of the development to Councils satisfaction. Councils written approval that all restorations have been completed satisfactorily must be obtained must be provided to the Private Certifying Authority with the Occupation Certificate application.
4. An Occupation Certificate application stating that the development complies with the Development Consent, the requirements of the Building Code of Australia and that a Construction Certificate has been issued must be obtained before the building is occupied or on completion of the construction work approved by this Development Consent.
5. Four (4) Angophora costata (Sydney Red Gum) are to be planted on the eastern side of the roadway and maintained for the life of the development.
6. A positive covenant/ restriction on the use of land is to be created prior to the issue of the Occupation Certificate where the recommendations of the approved Geotechnical Report which satisfied Part 1 requirement B of the deferred commencement requires on-going maintenance / inspections to ensure that the development achieves the acceptable level of risk criteria over the life of the development, the terms of which are to require the landowner to comply with the recommendations contained in that report.
7. That the drainage easement required by Condition A Part 1 of this approval is to be registered with the Land and Property Information Office and appropriate evidence of registration provided to Council prior to the issue of the occupation certificate

F. Matters to be satisfied prior to the issue of Subdivision Certificate:

Nil.

G. Advice:

1. Failure to comply with the relevant provisions of the Environmental Planning and Assessment Act, 1979 (as amended) and/or the conditions of this Development Consent may result in the serving of penalty notices (on-the-spot fines) under the summary offences provisions of the above legislation or legal action through the Land and Environment Court, again pursuant to the above legislation.
2. The applicant is also advised to contact the various supply and utility authorities, ie Sydney Water, Sydney Electricity, Telstra etc. to enquire whether there are any underground utility services within the proposed excavation area.
3. It is the Project Manager's responsibility to ensure that all of the Component Certificates/certification issued during the course of the project are lodged with the Principal Certifying Authority. Failure to comply with the conditions of approval or lodge the Component Certificates/certification will prevent the Principal Certifying Authority issuing an Occupation Certificate.
4. In accordance with Section 80A(1)(d) and (e) of the Act, any consent given shall be void if the development to which it refers is not commenced within two (2) years after the date of approval, provided that Council may, if good cause be shown, grant an extension of renewal of such consent beyond such period.



This plan must be adhered to by all parties associated with the development. No truck movements will be permitted in Garden Street south of Mullet Creek or in Mona Vale Road between Tumbledown Dick and Mona Vale.

13. A stamped copy of the approved plans is to be kept on the site at all times, during construction.
14. Toilet facilities are to be provided in a location which will not detrimentally affect the amenity of any adjoining residents at or in the vicinity of the work site during the duration of the development.
15. The native vegetation along the western side of the roadway is to be protected by fencing to prevent the entry of machinery or the storage of materials within the dripline (canopy spread) of the vegetation.
16. Certificate(s), Form 3 of the Geotechnical Risk Management Policy is (are) to be completed and submitted to the Principal Certifying Authority. Certificate(s) is (are) to be submitted where the recommendations of the approved Geotechnical Report prepared which satisfied Part 1 requirement B of the deferred commencement require sign-offs during the construction phase to achieve the acceptable level of risk criteria specified in the Geotechnical Risk Management Policy.

E. Matters to be satisfied prior to the issue of Occupation Certificate:

Note: The issue of interim or partial Occupation Certificates is not permissible within the terms of this consent unless otherwise specifically stated. Prior to the issue of an Occupation Certificate the principal certifying authority is to ensure that Council's assets, including road, kerb and gutter and drainage facilities adjacent or near to the site have not been damaged as a result of the works. Where such damage has occurred, it is to be repaired to Council's written satisfaction prior to the issue of an Occupation Certificate or suitable arrangements put in place to effect those repairs at a future date to Council's written satisfaction. Should this process not be followed, Council will pursue action against the principal accredited certifier in relation to the recovery of costs to effect such works.

Note: It is an offence to occupy the building or part thereof to which this consent relates prior to the issue of an Occupation Certificate.

1. Plans together with street levels provided by Council and a certificate submitted by a Chartered Professional Engineer confirming to the satisfaction of the Principal Certifying Authority that the works in the public road reserve comply with Council requirements and street levels are to be provided with the Occupation Certificate application.
2. Prior to issue of an Occupation Certificate photographic evidence of the condition of the street trees and road reserve and area adjoining the site after the completion of all construction, must be submitted to the Principal Certifying Authority showing that no damage has been done and if damage has been done that it has been fully remediated.

The photographs shall be accompanied by a statement that no damage has been done (or where damage has been remediated that Council has approved that work). In this regard Council's written agreement that all restorations have been completed satisfactorily must be obtained prior to the issue of any Occupation Certificate.



5. Waste materials generated through demolition, excavation and construction works are to be minimised by re-use on-site, recycling or where reuse or recycling is not practical, disposal at an appropriate authorised waste facility.
6. No works are to be carried out in Councils Road Reserve without the written approval of the Council.
7. A Road Opening Permit, issued by Council, must be obtained for any road openings, or excavation within Councils Road Reserve associated with the development on the site, including stormwater drainage, water, sewer, electricity, gas and communication connections. During the course of the road opening works the Road Opening Permit must be visibly displayed at the site.
8. No skip bins or materials are to be stored on Councils Road Reserve.
9. Access to the site through an adjoining park/reserve is prohibited without the written approval of the Council
10. A clearly legible *Site Management Sign* is to be erected and maintained throughout the course of the works. The sign is to be centrally located on the main street frontage of the site and is to clearly state in legible lettering the following: -

The builders name, builders telephone contact number both during work hours and after hours.

That no works are to be carried out in Councils Road Reserve without the written approval of the Council.

That a Road Opening Permit issued by Council must be obtained for any road openings or excavation within Councils Road Reserve associated with development of the site, including stormwater drainage, water, sewer, electricity, gas and communication connections. During the course of the road opening works the Road Opening Permit must be visibly displayed at the site.

That no skip bins or materials are to be stored on Councils Road Reserve.

That the contact number for Pittwater Council for permits is 9970 1111.

11. All construction in the public road reserve must be undertaken by a Council authorised contractor.
12. A satisfactory construction traffic management plan (CTMP) prepared by a suitably qualified traffic consultant is required to be submitted to the Private Certifying Authority prior to the commencement of any site works. The plan is to detail:
 - o Quantity of material to be transported
 - o Proposed truck movements per day
 - o Proposed hours of operation
 - o Proposed traffic routes, noting that 3 tonne load limits apply to some roads within Warriewood Valley



5. Submission of construction plans and specifications and documentation which are consistent with the approved Development Consent plans, the requirements of Building Code of Australia and satisfy all conditions shown in Part B above are to be submitted to the Principal Certifying Authority.
6. Any proposed demolition works shall be carried out in accordance with the requirements of AS2601-1991 *The Demolition of Structures*.
7. Structural Engineering details relating to the Development are to be submitted to the Accredited Certifier or Council prior to release of the Construction Certificate. Each plan/sheet is to be signed by a qualified practising Structural Engineer with corporate membership of the Institute of Engineers Australia (M.I.E), or who is eligible to become a corporate member and has appropriate experience and competence in the related field.
8. Disturbed areas shall be rehabilitated with indigenous plant species and treated by approved methods of erosion mitigation such as mulching, and revegetation with native grasses or other suitable stabilising processes.
9. Prior to issue of the Construction Certificate, details are to be submitted to the Principal Certifying Authority that include, but are not limited to, all of the recommended conditions in the Geotechnical Report which satisfied Part 1 requirement B of the deferred commencement.
10. Form 2 of the Geotechnical Risk Management Policy for Pittwater is to be completed and submitted with the above details before issue of the Construction Certificate.

D. Matters to be satisfied prior to the commencement of works and maintained during the works:

Note: It is an offence to commence works prior to issue of a Construction Certificate.

1. A Construction Traffic Management Plan (CTMP) prepared by a suitably qualified traffic consultant for the contractor is required to be submitted for approval by Council prior to the commencement of any site works. The CTMP is to detail: -
 - Quantity of material to be transported
 - Proposed truck movements per day
 - Proposed hours of operation
 - Proposed traffic routes, noting that 3 Tonne load limits apply to some roads in Warriewood Valley.
2. Temporary sedimentation and erosion controls are to be constructed prior to commencement of any work to eliminate the discharge of sediment from the site.
3. Sedimentation and erosion controls are to be effectively maintained at all times during the course of construction and shall not be removed until the site has been stabilised or landscaped to the Principal Certifying Authority's satisfaction.
4. Adequate measures shall be undertaken to remove clay from vehicles leaving the site so as to maintain public roads in a clean condition.



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Ross McWhirter, Project Leader - Warriewood Infrastructure
8am to 5pm Mon - Fri
Phone 9970 1207 Mobile 0419 629 007

19 October 2006

W D Bubalo
7 Orchard Street
WARRIEWOOD NSW 2102

Dear Sir,

Re: Engineering Plans for Orchard Street and Access Road

This correspondence refers to Clause C1 (second paragraph) of Consent No. N0457/05, and Clause B26 (second paragraph) of Consent No. N0152/02 requiring engineering plans and specifications within the public road reserve to be submitted and approved by Council prior to the issue of any Construction Certificate.

This advice refers to Orchard Street Access Road, Warriewood Civil Road Design prepared by Patterson Britton & Partners Pty Ltd: -

Drawing No. 4670, Sheet: -

01 Issue E, 02 Issue D, 03 Issue E, 04 Issue E, 05 Issue E, 06 Issue D, 07 Issue E,
08 Issue E, 09 Issue E, 10 Issue D, 11 Issue D, 12 Issue D and 13 Issue A.

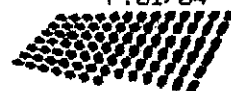
The Plans are satisfactory subject to the following:

- All Engineering Plans to be certified by an experienced Civil Engineer who is NPER accredited by the Institution of Engineers (Australia), in accordance with Condition C4 of Consent No. N0457/05 and Condition B28a of Consent No. N0152/02.

Yours faithfully


James Payne

MANAGER - URBAN INFRASTRUCTURE

**EnergyAustralia****Customer Service****Facsimile**

| | | | | |
|-----------------------|---------------------|-----------|-----------------------------------|---|
| To | Cathy Lean | From | Neil Austen | |
| At | Connect Engineering | Section | Network North Planning Section | |
| cc | | Address | 61-59 Bridge Road, Hornsby, 2077. | |
| Facsimile | 9733 3330 | Telephone | 0412 416 550 9981 9901 | Facsimile (02) 9981 9918 |
| Total number of pages | 4 | Date | 24-Aug-06 | Email nausten@energy.com.au Internet www.energy.com.au |

Dear Cathy

Lot 7 Orchard Street Warriewood

Attached letter provides the following

- Confirms that a substation is not required for this subdivision.
- Advises that separate supplies are required for each lot
- Provides details of monopoly fees which must be paid before design information is provided.

Should you require further information at this stage please contact me.

Regards

Neil Austen



H826-DR

EPL-SNNB/NSA

Tel: 9981 9901

Fax: 9981 9918

Email: nausten@energy.com.au

RECEIVED
21 SEP 2006

BY:

September 18, 2006

Cathy Lean
Connect Design Pty Ltd
Lot 305 Progress Circuit
Prestons NSW 2170

Dear Cathy

**Design Information Package – Subdivision of 7 Orchard Street
Warriewood**

Preliminary Advice

The proposed subdivision of Lot 7 Orchard Street Warriewood involves the creation of 10 lots from the original lot.

I have discussed this subdivision with a representative from Pittwater Council and have been given the following advice.

The existing access road is presently a private road, however when the lot 7 subdivision is completed, along with the Warriewood sector 10A 16 lot subdivisions (on the opposite side of the access road), the private road will be dedicated as public road.

Council has advised that the developer of the 7 Orchard Road subdivision will be responsible for constructing half the width of the new (future dedicated) road. The developer of the 7 Orchard Road subdivision will be responsible for installing street lighting required for the future dedicated road.

As the roadway is likely to be still designated as private, at the time low voltage reticulation is installed, EnergyAustralia will require an easement over the cables. It is therefore recommended that EnergyAustralia be provided with an easement over the full road width prior to cables being laid. This easement will be surrendered when Council advise that the roadway is to become dedicated public road.

Pittwater Council's Development consent conditions will require the developer to remove the single span of low voltage mains in Orchard Street and the associated low voltage pole. The ASP/3 designer will have to liaise with Telstra to replace their overhead construction with underground construction. The ASP/3 designer should confirm whether Telstra construction will be installed in the same trench as EnergyAustralia cables in accordance with the Shared Trenching Agreement.

A new substation will not be required for this subdivision. However to cater for a new substation in the Sector 10A development or future adjacent developments, the developer for the Orchard

240² MM
Amey

Road 7 subdivision will need to lay spare ducts for future HV cable as marked on the attached plans.

The ASP/3 designer will not be required to submit voltage drop or loading calculations with the design, in this instance.

Method of Supply for New Load

The supply to the new lots will be provided by extending the existing low voltage network distributor in Orchard Road, as shown, using 240Al 4XQZ/SAC low voltage cable.

Street Lighting

Pittwater Council now require conventional street lighting on the Warriewood subdivisions. This lighting is to consist of 80w MBF lanterns on conventional 6.5m steel standards with 3m outreach. The standards are to be supplied from low voltage pillars in accordance with Network Standard NS110.

Approvals

The design is to be submitted to Pittwater Council for their notification in accordance with the Electricity Supply Act.

Approval will be required from Pittwater Council for the installation of the 80w MBF lanterns on 6.5 m steel street lighting standard.

Note: Pittwater Council have advised they will be paying street lighting annual costs even if roadway is not dedicated at the time the standards are installed for this project.

Environmental Impact Assessment

An EIA is to be submitted with the design

Project Identification

The ProjTrak identification number is to be CCY010703

Customer Service Contact

The Network Customer Service contact is Neil Austen on 9981 9901 or 0412 416 550

EA Funded Construction

Installation of spare conduits (as shown on attachment) for future high voltage cables. The conduits will be installed by the ASP/1

Contestable Costs

All other costs.

General

The Design Plan should note that all legal and survey costs are to be borne by the developer.

The design is to comply with all relevant EnergyAustralia Network Standards. In particular the design should comply with NS100, NS104, NS110, NS118, NS127, NS128, NS130, NS143, NS167, NS174.

Note: EnergyAustralia asset numbers for the new pillars and street lighting standards will be provided on receipt of the initial submission of the design plan.


Neil Austen
Network North – Customer Supply



Jack Hodgson Consultants Pty Limited

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ABN: 94 053 405 011

RISK ANALYSIS & MANAGEMENT FOR PROPOSED REFURBISHMENT OF ACCESS ROAD AT ORCHARD STREET WARRIEWOOD



2011.2000

WARRIEWOOD COUNCIL

DIRECTOR: J.D. HODGSON, M. Eng. Sc., F.I. E. Aust., Nper3 Struc. Civil 149788

67 Darley Street, Mona Vale NSW 2103

PO Box 389 Mona Vale NSW 1660

Telephone: 9979 6733 Facsimile: 9979 6926

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1 – To be submitted with Development Application

Development Application for WALLY BUBALO
Name of Applicant
Address of site ORCHARD ST, WARRIEWOOD

Declaration made by geotechnical engineer or engineering geologist or coastal engineer (where applicable) as part of a geotechnical report

I, J HODGSON on behalf of JACK HODGSON CONSULTANTS
(Insert Name) (Trading or Company Name)

on this the 8/5/06 certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least \$2million.
I have:

Please mark appropriate box

- ☒ Prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy
- ☐ Am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Geotechnical Risk Management Guidelines and the Pittwater Council Policy
- ☐ Have examined the site and the proposed development/alteration in detail and am of the opinion that the Development Application only involves Minor Development/Alterations that do not require a Detailed Geotechnical risk Assessment and hence my report is in accordance with the Policy requirements for Minor Development/Alterations
- ☐ Provided the coastal process and coastal forces analysis for inclusion in the geotechnical report

Geotechnical Report Details:

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED REFURBISHMENT OF ACCESS ROAD AT 107 ORCHARD ST, WARRIEWOOD
Report Date: 3/5/06
Author: J HODGSON

Documentation which relate to or are relied upon in report preparation:

I am aware that the above geotechnical report, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature J Hodgson
Name J HODGSON
Chartered Professional Status MEng Sc FIE Aust
Membership No. 149788



GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1(a) - Checklist Of Requirements For Geotechnical Risk Management Report for
Development Application or Part V assessment

| | |
|---|-------------------|
| Development Application for <u>WALLY RUBALO</u> | Name of Applicant |
| Address of site <u>ORCHARD ST, WARRIEWOOD</u> | |

The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the **Geotechnical Report** and its certification (**Form No. 1**).

Geotechnical Report Details:

| | |
|---|--|
| Report Title: <u>RISK ANALYSIS & MANAGEMENT FOR PROPOSED REFURBISHMENT OF</u> | ACCESS RD, AT 107 ORCHARD ST, WARRIEWOOD |
| Report Date: <u>3/5/06</u> | |
| Author: <u>J HODGSON</u> | |

Please mark appropriate box

- ☒ Comprehensive site mapping conducted 3/5/06
(date)
- ☒ Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1:200 (as appropriate)
- ☐ Subsurface investigation required
- ☒ No Justification SEE REPORT
- ☐ Yes Date conducted
- ☒ Geotechnical model developed and reported as an inferred subsurface type-section
- ☒ Geotechnical hazards identified
- ☐ Above the site NO
- ☒ On the site
- ☐ Below the site NO
- ☐ Beside the site NO
- ☒ Geotechnical hazards described and reported
- ☒ Risk assessment conducted in accordance with Council's Policy
- ☒ Consequence analysis
- ☒ Frequency analysis
- ☒ Risk calculation
- ☒ Risk assessment for property conducted in accordance with Council's Policy
- ☒ Risk assessment for loss of life conducted in accordance with Council's Policy
- ☒ Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater
- ☒ Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved.
- ☒ Design Life Adopted:
- ☒ 100 years
- ☐ Other specify
- ☒ Development **Conditions to be applied to** all four phases as described in Pittwater
- ☒ Geotechnical Risk Management Policy have been **specified**
- ☒ Additional action to remove risk where reasonable and practical have been identified and included in **the report**.

I am aware that Pittwater Council will rely on the Geotechnical Report, to which this checklist applies, **as** the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated, **and** justified **in the Report** and that reasonable and practical measures **have** been identified to remove foreseeable risk.

Signature J. Hodgson

Name J HODGSON

Chartered Professional Status MEng Sc FIEAust

Membership No. 149788





Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN: 94 053 405 011

VR 23521.
3rd May, 2006.
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**RISK ANALYSIS & MANAGEMENT
FOR
PROPOSED REFURBISHMENT OF ACCESS ROAD
AT
107 ORCHARD STREET, WARRIEWOOD.**

1. INTRODUCTION.

1.1 This assessment has been prepared to accompany an application for development approval. The requirements of the Interim Geotechnical Risk Management Policy for Pittwater, June 2003 have been met.

1.2 The definitions used in this Report are those used in the Interim Geotechnical Risk Management Policy for Pittwater, June 2003.

1.3 The methods used in this Assessment are based on those described in Landslide Risk Management Concepts and Guidelines, March 2000, published by the Sub-Committee on Landslide Risk Management of the Australian Geomechanics Society and as modified by the Interim Geotechnical Risk Management Policy for Pittwater, June 2003.

1.4 The experience of the author of this Report spans some 46 years in many areas of Australia and in the Pittwater area, particularly in the last 30 years as Principal of Jack Hodgson Consultants Pty Limited.

2. PROPOSED DEVELOPMENT.

2.1 Resurface and gutter the existing roadway along part of Orchard Road and all of the private section of the road.

2.2 The plans of the proposed development are shown on twelve drawings numbered 4670-01 to by Patterson Britton Partners Pty Ltd and dated 8/11/05.

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3. DESCRIPTION OF SITE & SURROUNDING AREA.

3.1 The site was inspected on the 2nd May 2006.

3.2 The public section of Orchard road runs west with the existing road gradient rising at an angle approximating 6 degrees. It dog legs 90 degrees at the start of the private section of the road where the road gradient drops away to the south at angles up to ~ 7 degrees. **See Photo 1.** The slope of the surrounding topography falls gently to the south east.

3.3 The existing road is not guttered. The road surface has been cut back into the uphill side of the road and is drained via a shallow channel that runs parallel to the uphill side. **See Photo 2.** The cut batter for the road is up to 1.2 metres high. It is vegetated in small shrubs and grass and is stable **See Photo 3.** The fill batter on the downhill side of the road is up to 1.5m high **See Photo 4.** It is vegetated as above and is stable.

3.4 The existing road shows no cracking or other evidence that can be attributed to ground movement or creep that could affect its stability.

4. GEOLOGY OF THE SITE.

4.1 The site is underlain by interbedded sandstones, siltstones and shales of the Narrabeen Group which do not outcrop on the site. The Narrabeen Group Rocks are Late Permian to Middle Triassic in age with the early rocks not outcropping in the area under discussion. The materials from which the rocks were formed consist of gravels, coarse to fine sands, silts and clays. They were deposited in a riverine type environment with larger floods causing fans of finer materials. The direction of deposition changed during the period of formation. The lower beds are very variable with the variation decreasing as the junction with the Hawkesbury Sandstones is approached. This is marked by the highest of persistent shale beds over thicker sandstone beds which are similar in composition to the Hawkesbury Sandstones.

4.2 The slope materials are colluvial at the surface and residual at depth. They consist of sandy loam topsoil over sandy clays and clays with rock fragments and some floaters through out the profile. The sandy clays and clays merge into the weathered zone of the under lying rocks at depths expected to be in the range 0.6 to 2.5 metres.

5. SUBSURFACE INVESTIGATION.

The surface features described in this Report are considered to be adequate, therefore no subsurface investigation is required.

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6. DRAINAGE OF THE SITE.

6.1 ON THE SITE.

No major drainage channels intersect the road. Normal sheet wash will cross the road from above during heavy down pours.

6.2 SURROUNDING AREA.

The natural drainage flow is to the south into Mullet Creek and its tributaries.

7. GEOTECHNICAL HAZARDS.

7.1 ABOVE THE SITE.

No geotechnical hazards likely to adversely affect the road were observed above the site.

7.2 ON THE SITE.

7.2.1 The cut batters for the road are a potential hazard (**HAZARD ONE.**).

7.2.2 The fill batters for the road are a potential hazard (**HAZARD TWO.**).

7.3 BELOW THE SITE.

No geotechnical hazards likely to adversely affect the road were observed below the site.

7.4 BESIDE THE SITE.

No geotechnical hazards likely to adversely affect the road were observed beside the site.

8. RISK ASSESSMENT.

8.1 ABOVE THE SITE.

As no geotechnical hazards likely to affect the road were observed above the site, no risk analysis is required.

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8.2 ON THE SITE.

8.2.1 HAZARD ONE The cut batters for the road are relatively low, are battered back at a stable angle and are well vegetated. Therefore the likelihood of failure the cut batter is assessed as 'Unlikely' ($>10^{-3}$). The consequences to property of such a failure are assessed as 'Minor' ($>0.1\%$). The consequences to life of such a failure are assessed as 'Insignificant' ($>10^{-4}$). The risk to property is 'Low' (10^{-7}). The risk to life is 'Very Low' (10^{-8}).

8.2.2 HAZARD TWO The fill batters for the road are relatively low, are battered back at a stable angle and are well vegetated. Therefore the likelihood of failure the cut batter is assessed as 'Unlikely' ($>10^{-3}$). The consequences to property of such a failure are assessed as 'Minor' ($>0.1\%$). The consequences to life of such a failure are assessed as 'Minor' ($>10^{-4}$). The risk to property is 'Low' (10^{-7}). The risk to life is 'Low' (10^{-7}).

8.3 BELOW THE SITE.

As no geotechnical hazards likely to affect the road were observed below the site, no risk analysis is required.

8.4 BESIDE THE SITE.

As no geotechnical hazards likely to affect the road were observed beside the site, no risk analysis is required.

9. SUITABILITY OF DEVELOPMENT FOR SITE.

9.1 GENERAL COMMENTS.

The proposed road is suitable for the site.

9.2 GEOTECHNICAL COMMENTS.

No geotechnical hazards will be created by the completion of the proposed development.

9.3 CONCLUSIONS.

The site and the proposed development can achieve the Acceptable Risk Management criteria outlined in the Pittwater Interim Geotechnical Risk Policy provided the recommendations given in **Section 10** are undertaken.

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10. RISK MANAGEMENT.

10.1. TYPE OF STRUCTURE.

The proposed structures are suitable for the site.

10.2. EXCAVATIONS.

10.2.1 Minor excavations of less than 0.5 metre may be required to resurface and gutter the road.

10.2.2 The stormwater drainage at the southern end of the street will require a narrow channel cut up to a depth of 1.6m deep. It is envisaged this cut will stand unsupported for a short period. Stormwater pipes should be laid as soon as possible after the cut is taken and the channel backfilled.

10.3. FILLS.

10.3.1 Fill will be required over the subsurface drainage at the southern end of the road. Some additional fills may be required to level the road.

10.3.2 All fill material shall be free from organic and perishable matter, have a maximum particle size of 75mm, a plasticity index between 2 and 20 and CBR>10%.

10.3.3 All fills are to be placed in layers not more than 200 mm thick and compacted to not less than 95% of Standard Optimum Dry Density at plus or minus 2% of Standard Optimum Moisture Content.

10.4. FOUNDATION MATERIALS AND FOOTINGS.

10.4.1 The sandy clays underlying the existing road are suitable to support the proposed road. The Ultimate Design Bearing Pressure is 300kPa.

10.5. STORM WATER DRAINAGE.

All stormwater run off from the proposed road is to be collected and piped to the existing stormwater line through any detention pit that may be required by council.

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10.6. SUBSURFACE DRAINAGE.

10.6.1 Any retaining walls that may be required that are not free draining are to have subsurface drains fitted with standpipes to permit flushing of system.

10.6.2 Discharge from any subsurface drains is to be piped clear of the downhill side of any adjacent house.

10.7. INSPECTIONS.

10.7.1 If subsurface drains are necessary for retaining walls, then it is recommended that all subsurface drains be inspected and approved before backfilling is completed.

10.7.2 It is recommended that all backfill be inspected and approved before backfilling is complete.

10.8. MAINTENANCE.

10.8.1 The road is to be maintained in good order.

11. GEOTECHNICAL CONDITIONS FOR ISSUE OF CONSTRUCTION CERTIFICATE.

It is recommended that the following geotechnical conditions be applied to the Development Approval:-

The work is to be carried out in accordance with the Risk Management Report VR 23521 dated 3rd May 2006.

The Geotechnical Engineer is to inspect and approve all subsurface drains before backfilling is completed.

The Geotechnical Engineer is to inspect and approve all fill material before backfilling is completed.

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12. GEOTECHNICAL CONDITIONS FOR ISSUE OF OCCUPATION CERTIFICATE.

The Geotechnical Engineer is to certify the following geotechnical aspects of the development:-

The work has been carried out in accordance with the Risk Management Report VR 23521 dated 3rd May 2006.

All subsurface drains were inspected and approved before backfilling was completed.

All fill material was inspected and approved before backfilling was completed.

13. RISK ANALYSIS SUMMARY.

| HAZARDS | Hazard One | Hazard Two |
|--------------------------|--------------------------------|--------------------------------|
| TYPE | The cut batters for the road. | The fill batters for the road. |
| LIKELIHOOD | 'Unlikely' ($>10^{-4}$) | 'Unlikely' ($>10^{-4}$) |
| CONSEQUENCES TO PROPERTY | 'Minor' ($>0.1\%$) | 'Minor' ($>0.1\%$) |
| CONSEQUENCES TO LIFE | 'Insignificant' ($>10^{-4}$) | 'Minor' ($>10^{-4}$) |
| RISK TO PROPERTY | 'Low' (10^{-7}) | 'Low' (10^{-7}) |
| RISK TO LIFE | 'Very Low' (10^{-8}) | 'Low' (10^{-7}) |
| COMMENTS | 'Acceptable' | 'Acceptable' |

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14. PHOTOGRAPHS.



Photo 1. The access road looking south just beyond the dog leg.



Photo 2. Showing the shallow drainage channel on the up hill side of the road looking south.

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Photo 3. The cut batter for the road looking north.

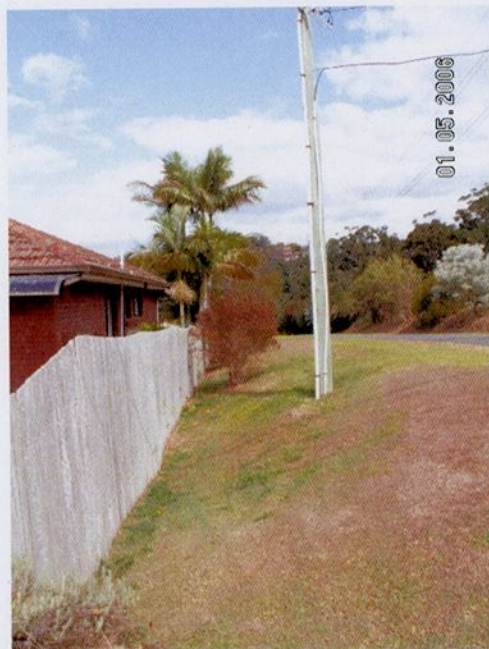
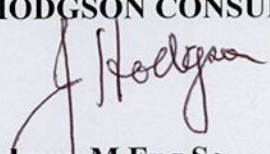
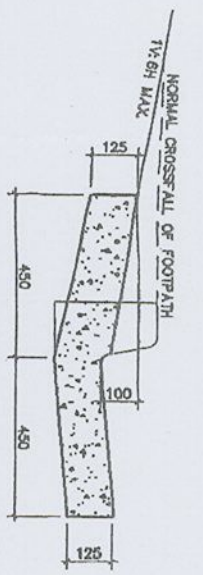
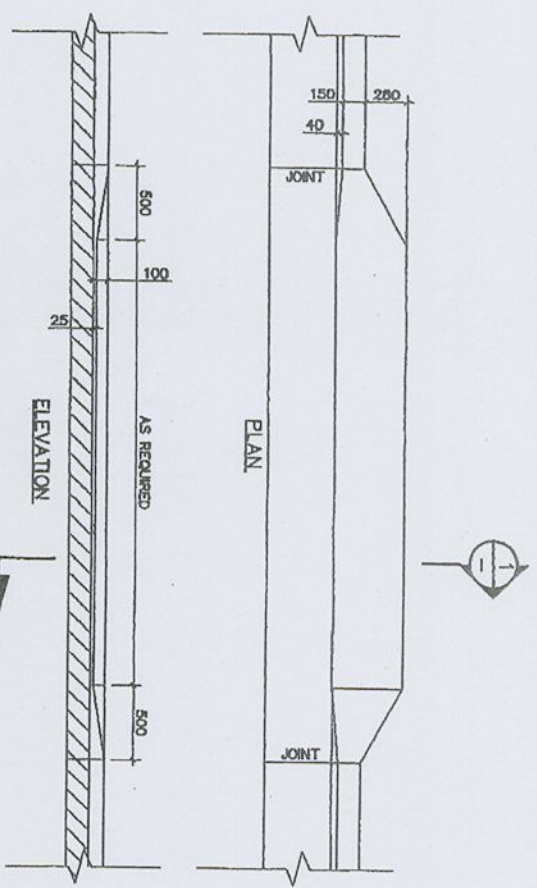


Photo 4. The fill batter for the road looking south.

JACK HODGSON CONSULTANTS PTY. LIMITED.


**J. D. Hodgson M.Eng.Sc.,
F.I.E.Aust., CP ENG.
Civil & Structural Engineer.
Nper3, Struct. Civil. No. 149788.
Director.**

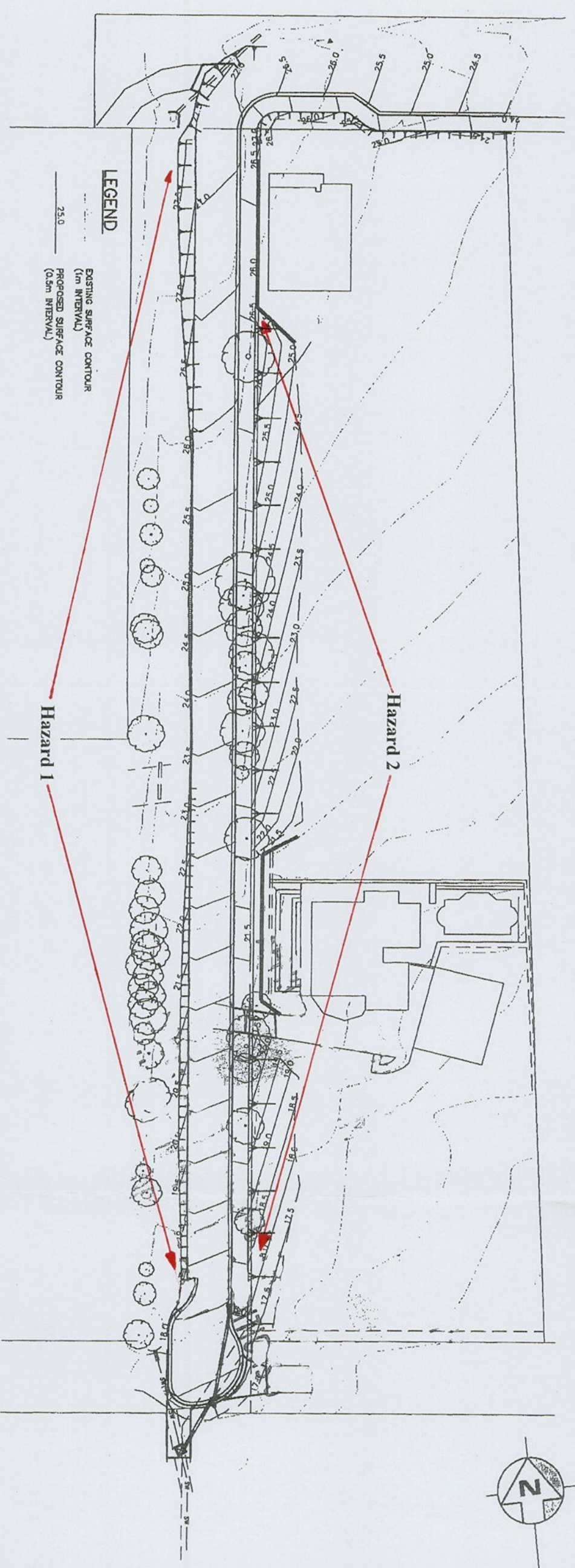
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| | |
|-------|----------------|
| 50mm | WEARING COURSE |
| 100mm | BASE COURSE |
| 100mm | SUB-BASE |
| 250mm | |

TYPICAL ROAD PAVEMENT DETAIL

- NOTE
1. THE BASE COURSE MATERIAL CAN BE DGG20 OR RECYCLED CONCRETE SATISFYING THE REQUIREMENTS OF DGG20 STANDARD PROVIDED IN THE R1A 2001 SPECIFICATION. THE SUB-BASE MATERIAL CAN BE CRUSHED SANDSTONE OR RECYCLED CONCRETE SATISFYING THE REQUIREMENTS OF DGG40 STANDARD PROVIDED IN THE R1A 2001 SPECIFICATION.
 2. THE ANNUAL COMPACTION DRY DENSITY RATIOS ARE AS FOLLOWS (AS1293.5.4.1-1983):
 - SUB-BASE 85% MODIFIED
 - BASE COURSE 90% MODIFIED
 - SUB-GRADE 100% STANDARD OR DENSITY RATIO OF 85%
 3. PAVEMENT WEARING COURSE TO CONSIST OF A 30mm THICK LAYER OF AC14 OVERLAIN BY A 20mm THICK LAYER OF AC10.
 4. FOR DETAILS OF THE REQUIRED ROAD PAVEMENT REFER TO PAVEMENT DESIGN REPORT 14th JANUARY 2006.



Site Plan
Orchard Street Access Road,
107 Orchard Street, Warriewood
VR 23521
Scale 1:600



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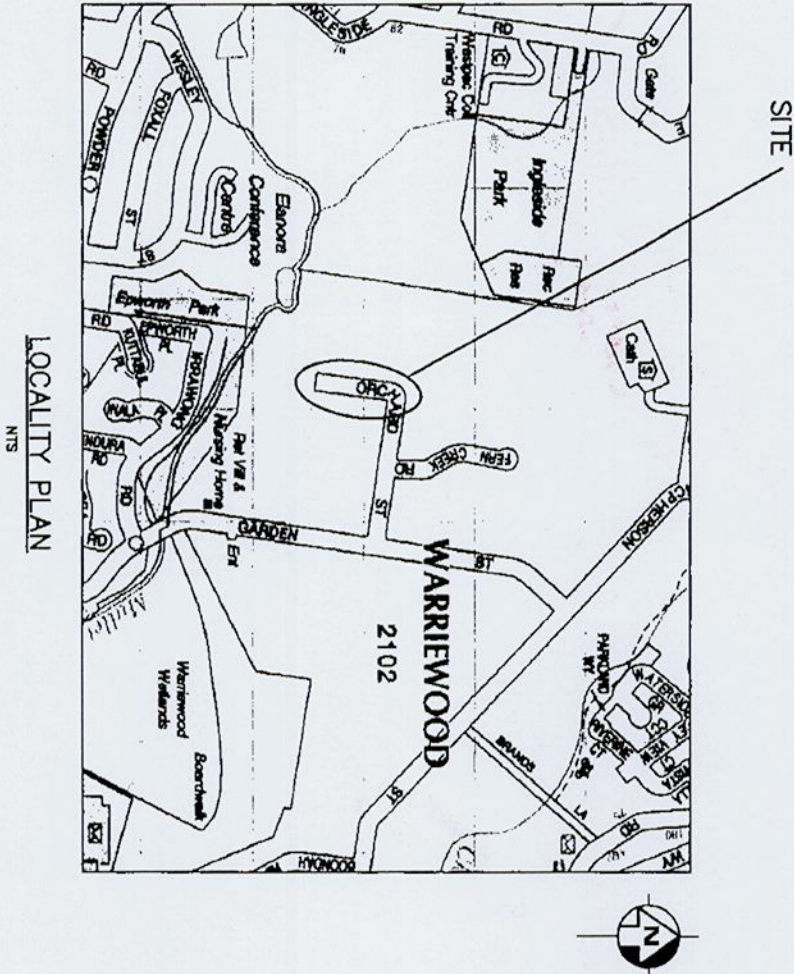
Longitudinal Section & Site Plan
Orchard Street Access Road,
107 Orchard Street, Warriewood
VR 23521
Horizontal Scale 1:600
Vertical Scale 1:300

ORCHARD STREET ACCESS ROAD,

WARRIEWOOD

CIVIL ROAD DESIGN

for
V, D AND M BUBALO



DRAWING LIST:

- 4670-01 TITLE SHEET, LOCALITY PLAN AND DRAWING LIST
- 4670-02 GENERAL NOTES & SPECIFICATIONS (SHEET 1 OF 2)
- 4670-03 GENERAL NOTES & SPECIFICATIONS (SHEET 2 OF 2)
- 4670-04 SITE PLAN AND LONGITUDINAL SECTION
- 4670-05 CUL-DE-SAC KERB DEVELOPMENT AND ACCESS ROAD TYPICAL SECTION
- 4670-06 ACCESS ROAD DESIGN CROSS SECTIONS SHEET 1 OF 3
- 4670-07 ACCESS ROAD DESIGN CROSS SECTIONS SHEET 2 OF 3
- 4670-08 ACCESS ROAD DESIGN CROSS SECTIONS SHEET 3 OF 3
- 4670-09 PROPOSED SURFACE CONTOURS AND PAVEMENT DESIGN
- 4670-10 STORMWATER DRAINAGE PLAN
- 4670-11 STORMWATER DRAINAGE LONGITUDINAL SECTIONS
- 4670-12 EROSION AND SEDIMENT CONTROL PLAN

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

PITTSWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

SCANNED
23 OCT 2006
PITTSWATER COUNCIL

DRG STATUS : TENDER, NOT FOR CONSTRUCTION

| | | | | |
|--|----------------------|-------|-----|------|
| INITIALS SHOWN IN THE ADJACENT ISSUE RECORDS INDICATE THE STAGES UNDERTAKEN IN THE DRAWING APPROVAL PROCESS. DRAWINGS ARE ONLY TO BE USED WHEN APPROVED BY PATTERSON BRITTON & PARTNERS AND THEN ONLY IN THE ORIGINAL UNREVISED VERSION. ORIGINAL SIGNATURES CAN BE FOUND ON THE REVERSE SIDE OF THE ORIGINAL OF THE DRG REGISTER/TRANSMITTAL FORM No.5.2.2 HELD BY PATTERSON BRITTON & PARTNERS | | | | |
| | | | | |
| C | CUL-DE-SAC REVISED | MS | ARG | MS |
| B | ISSUED FOR APPROVALS | FC | ARG | MS |
| A | ISSUED FOR REVIEW | ARG | ARG | MS |
| Issue | Details of Issue | Des'd | Dwn | Chkd |

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Patterson Britton & Partners Pty Ltd
consulting engineers

Client
V, D AND M BUBALO

Project
ORCHARD STREET ACCESS ROAD
WARRIEWOOD

Title
TITLE SHEET, LOCALITY PLAN
AND DRAWING LIST

Drawing No.
4670-01

Issue
C

Cod File No.
4670-01

Xref(s)

1. ALL WORKS SHALL BE IN ACCORDANCE WITH ATTACHED COUNCILS AHS-SEC CONSTRUCTION SPECIFICATION, DETAILS SHOWN ON THESE DRAWINGS, AND TO THE DIRECTIONS OF THE PROJECT MANAGER.
2. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, SPECIFICATIONS AND WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
3. ALL SET OUT DIMENSIONS SHOWN SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE WORK COMMENCES. DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.

4. DURING CONSTRUCTION THE WORKS SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING AND BATTERS SHALL BE PROVIDED BY THE CONTRACTOR TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
5. ALL MATERIALS AND WORKMANSHIP USED IN THE CONSTRUCTION OF THIS DESIGN SHALL BE IN ACCORDANCE WITH ALL RELEVANT CURRENT AUSTRALIAN STANDARDS.
6. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.
7. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE ACCURACY IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION, DEPTHS AND EXISTING APPROVALS SHALL ALSO BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY PRIOR TO THE COMMENCEMENT OF WORK.
8. THE CONTRACTOR SHALL OBTAIN SURVEY CO-ORDINATES FROM THE SUPERINTENDENT, AND ARRANGE ALL SURVEY SETOUT BY A REGISTERED SURVEYOR.
9. ALL NEW AND EXHAUST SERVICES THAT CROSS EXISTING AND FUTURE ROADS/PAVEMENTS WITHIN THE SITE SHALL BE BACKFILLED WITH D920 MATERIAL TO SUBGRADE LEVEL AND COMPACTED TO 90% STANDARD DENSITY RATIO. SUBJECT TO PRIOR APPROVAL FROM RELEVANT AUTHORITY.
10. ON COMPLETION OF SERVICES INSTALLATION, ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GROSSED AREAS AND ROAD PAVEMENTS.
11. WHERE NEW WORK ABUTS EXISTING, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE FREE FROM ABRUPT CHANGES, IS OBTAINED.
12. CARE TO BE TAKEN WHEN EXCAVATING NEAR ENERGY AUSTRALIA NETWORKS, TELEPHONE AND GAS SERVICES. NO MECHANICAL EXCAVATION TO BE UNDERTAKEN OVER POWER, TELEPHONE AND GAS SERVICES HAND EXCAVATE IN THESE AREAS. SURVEY WITH RELEVANT AUTHORITY AS REQUIRED.
13. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING SURVEY BENCH MARKS OR REFERENCE MARKS (UNLESS INDICATED FOR REMOVAL) WITHOUT LANDS DEPT APPROVAL IN WRITING.
14. THE CONTRACTOR TO FENCE AND SECURE SITE.
15. PUBLIC ROAD WORKS
THE CONTRACTOR'S ATTENTION IS DRAWN TO THE REQUIREMENTS OF PITWATER COUNCIL, WHERE THE WORKS ARE LOCATED IN A ROAD RESERVE OR ACROSS THE PAVEMENT OF A PUBLIC ROADWAY OR FOOTWAY. THE CONTRACTOR SHALL OBTAIN A PERMIT COVERING THE NECESSARY WORKS AND COMPLY WITH ALL THE CONDITIONS COVERED IN THE PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PAVEMENT OPENINGS. THE CONTRACTOR SHALL OBTAIN DETAILS FROM COUNCIL, PAY ALL FEES, MEET ALL REQUIREMENTS AND CARRY OUT ALL LIAISON AT NO EXTRA COST. ALL PAVEMENT SURFACING IS TO BE UNDERTAKEN BY THE CONTRACTOR. ALL PAVEMENT REINSTATEMENT TO BE UNDERTAKEN BY THE CONTRACTOR. ALL TO PITWATER COUNCIL'S STANDARDS AND APPROVAL.
16. PAYMENT DESIGN REPORT BY SEPTEMBER, JANUARY 2005 - THE CONTRACTOR SHALL ENSURE THAT THEY ARE FAMILIAR WITH THE CONTENTS OF THIS REPORT.
17. ALL CONSTRUCTION WORK SHALL BE CARRIED OUT SO THAT AT ANY TIME THE ADJOINING PROPERTY OWNERS ARE NOT DEPRIVED OF AN ALL-WEATHER ACCESS OR SUBJECTED TO ADDITIONAL OR POLLUTED STORM WATER RUNOFF DURING THE PERIOD OF CONSTRUCTION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO COUNCIL'S INFRASTRUCTURE, SUCH AS ROAD OR REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF COUNCIL.
19. THE CONTRACTOR IS TO PREPARE AND IMPLEMENT A TRAFFIC MANAGEMENT PLAN TO COUNCIL'S STANDARDS AND APPROVAL FOR ALL WORKS.
20. SITE SURVEY UPON WHICH DESIGN HAS BEEN BASED PREPARED BY BIRNIE & ASSOCIATES, DECEMBER 2004.

1. ATTENTION IS DRAWN TO THE OCCUPATIONAL HEALTH AND SAFETY ACT (2000), WHICH REQUIRES THAT EMPLOYERS ENSURE THE HEALTH, SAFETY AND WELFARE OF THEIR EMPLOYEES.

2. THE CONTRACTOR MUST, AT ALL TIMES, EXERCISE ANY OTHER NECESSARY AND REASONABLE PRECAUTIONS APPROPRIATE TO THE NATURE OF THE WORK AND THE CONDITIONS UNDER WHICH THE CONTRACT IS TO BE PERFORMED FOR THE SAFETY OF ALL PERSONS ON THE WORK SITE, OR IN THE VICINITY.

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN A QUALITY ASSURANCE SYSTEM MEETING THE REQUIREMENTS OF AS 9002. THE QUALITY SYSTEM SHALL BE DOCUMENTED AND THE RECORDS OF THE SYSTEM SHALL BE KEPT IN SUCH A MANNER THAT RECORDS ARE KEPT OF ALL ASPECTS AND STAGES OF THE WORK.

2. THE RECORDS FOR EACH CONSTRUCTION TASK SHALL BE STORED AND TESTIFIED TO THE SATISFACTION OF THE CONTRACTOR ADMINISTRATOR. THE PROGRAMS FOR RECORDS SHALL BE SUBMITTED TO THE CONTRACTOR ADMINISTRATOR FOR APPROVAL. AND WORK SHALL NOT COMMENCE UNTIL SUCH APPROVAL HAS BEEN GIVEN.

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN ACCURATE AND UP TO DATE RECORDS AND SHALL MAKE SUCH RECORDS AVAILABLE TO THE ARCHITECT AND OWNER FOR REVIEW AND VERIFICATION. THE MAINTENANCE OF RECORDS AS SPECIFIED WILL RESULT IN THE CONTRACTOR BE ASSESSING COMPLETED WORKS IF INSTRUCTED TO DO SO BY THE CONTRACTOR ADMINISTRATOR.
2. AT THE COMPLETION OF EACH STAGE OF THE WORKS THE CONTRACTOR SHALL CERTIFY THAT THOSE WORKS HAVE BEEN UNDERTAKEN AND COMPLETED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATION AND INSTRUCTIONS ISSUED DURING THE COURSE OF THE CONTRACT.

1. THE CONTRACTOR SHALL ALLOW FOR THE GRABBING OF EXCAVATION MATERIALS AND DEBRIS FROM THE EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH MATERIALS AS SPECIFIED BY THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH MATERIALS AS SPECIFIED BY THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT, ALL TO REGULATORY AUTHORITY STANDARDS AND APPROVAL.
2. MAINTAIN EXISTING STORAGE/RAIN DRAINAGE FLOWS THROUGH THE SITE AT ALL TIMES. MAKE DUE ALLOWANCE FOR ALL SUCH FLOWS AT ALL TIMES.
3. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL OBTAIN THE SUPERINTENDENT'S APPROVAL FOR HIS PROGRAMME FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
4. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES AS REQUIRED TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE OVERSEEN IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.

3. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE OR DAMAGE TO THE ADJACENT RESIDENCES. THE CONTRACTOR IS TO GAIN APPROVAL OF THE SUPERINTENDENT FOR THE TIME OF INTERRUPTION.

1. ALL STORMWATER WORKS ARE TO BE UNDERTAKEN GENERALLY IN ACCORDANCE WITH AS 3500 STORMWATER DRAINAGE.

2. UNLESS OTHERWISE APPROVED, ALL DRAINAGE PIPES SHALL BE CLASS "2" SPIGOT AND SOCKET ROP PIPES WITH RUBBER RING JOINTS.
3. CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION TO EXISTING PIPEROCK.
4. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADITIONAL-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE COATED RENDERED WITH A NON-SHRINK EPOXY GROUT TO ENSURE A SMOOTH FINISH.
5. PRECAST PITS SHALL NOT BE USED. ALL DRAINAGE PITS TO BE CAST IN SITU. LIMITS MAY BE PRECAST TO SUIT PROPOSED PITS.
6. STEP RIGGS AT SPACINGS OF 0.2m ARE TO BE PROVIDED IN DRAINAGE PITS MORE THAN 1.2m DEEP.
7. PROVIDE 3.0m LENGTH OF 1000A SUBSOL DRAINAGE PIPE WRAPPED IN FABRIC SOCK AT UPSTREAM END OF EACH PIT.
8. ALL CONCRETE USED IN DRAINAGE PITS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 40MPa.
9. THE EXCAVATED TRENCH WIDTH FOR PIPE LAYING MUST BE AT LEAST 300mm WIDER THAN THE OUTER DIAMETER OF THE PIPE. PIPES ARE TO BE Laid CENTRALLY WITHIN THE EXCAVATED TRENCH.
10. ALL PITS ARE TO BE Laid ON A MINIMUM BEDDING OF 75mm OF SAND OR GRADED PIPESAND WITH A MINIMUM BEDDING SHALL BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY.
11. BACKFILL FOR STORMWATER PITS AND PIPES SHALL BE COMPACTED TO AT LEAST 95% (95% FOR ROAD) OF THE MAXIMUM DRY DENSITY AND GRADED IN ACCORDANCE WITH AS 3500.3.
12. BACKFILL MATERIAL SHALL BE INSPECTED AND APPROVED BY THE SUPERINTENDENT PRIOR TO PLACING AND COMPACTING.

13. THE CONTRACTOR SHALL ENSURE THAT ANY EXISTING STRUCTURES LOCATED ADJACENT TO EXCAVATED TRENCHES ARE SUPPORTED OR PROTECTED TO PREVENT DAMAGE TO OR MOVEMENT OF THESE STRUCTURES.

14. UNLESS SPECIFIED ALL DRAINAGE GRATES TO BE HEAVY DUTY GALVANIZED MILD STEEL TO AS 3598.

15. CHASSES SHALL BE FORMED WHERE NECESSARY TO PREVENT SOCKETS, FLANGES OR THE LIKE FROM BEARING ON THE TRENCH BOTTOM OR THE UNDERLAY.

16. MATERIAL SHALL BE PLACED IN THE PIPE SURROUND IN LAYERS NOT MORE THAN 200mm LOOSE THICKNESS AND COMPACT WITHOUT DAMAGING OR DISPLACING THE PIPEWORK.

1. FOUNDATION MATERIAL DEEMED BY THE SUPERINTENDENT AS UNSUITABLE TO BE REMOVED AS DIRECTED BY THE SUPERINTENDENT AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS LISTED BELOW.

2. UNLESS OTHERWISE APPROVED OR SPECIFIED, ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING:
- a) FREE FROM ORGANIC AND PERSHABLE MATTER
 - b) MAXIMUM PARTICLE SIZE 75MM
 - c) PLASTICITY INDEX BETWEEN 2% AND 20%
 - d) OR $\gamma > 10\%$
3. SELECT FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200MM LOOSE THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM2481 OR NOT LESS THAN THE FOLLOWING STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM2481:
- | LOCATION | STANDARD DRY DENSITY | GRADE OF SERVICE | REMARKS |
|-------------------|----------------------|------------------|---------|
| ROAD AND SIDEWAYS | 100% | | |
| LANDSCAPED AREAS | 80% | | |

5. CONSTRUCTION CONTROL TESTING SHALL BE CARRIED OUT BY AND AT THE COST OF THE CONTRACTOR TO CONFORM WITH LEVEL 1 AS DEFINED IN BS5756-1:1996.

G1. CARRY OUT ALL CONCRETE WORK IN ACCORDANCE WITH ASSA000 AND THE SPECIFICATION. KEEP A COPY OF THE DOCUMENTS ON SITE.

G2. VERIFY ALL SETTING OUT DIMENSIONS WITH THE SUPERINTENDENT AND/OR THE SURVEYOR.

C1. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH A33000 CURRENT EDITIONS WITH AMENDMENTS, EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.

C2. CONCRETE USED IN THE WORKS SHALL BE EITHER MASS CONCRETE OR REINFORCED CONCRETE AS NOTED ON THE DRAWINGS AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

- | PROPERTY | REGENERATED CONCRETE | MASS CONCRETE |
|---|-----------------------|-----------------------|
| EXPOSURE CLASSIFICATION | B2 | B2 |
| MIN 28 DAY COMPRESSIVE STRENGTH | 40 MPa | 40 MPa |
| CEMENT TYPE | GENERAL PURPOSE | GENERAL PURPOSE |
| CEMENT CONTENT (MIN.) | 350 kg/m ³ | 300 kg/m ³ |
| WATER-BINDER RATIO (MAX.) | 0.45 | 0.45 |
| CEMENT FILLER (MAX.) | 45 mm | 45 mm |
| ADDITIONAL AGGREGATE (MIN.) | CLASS 2 | CLASS 2 |
| FORMED SURFACE FINISH | WOOD FLOAT | WOOD FLO. |
| UNFURNISHED SURFACE | 20 mm | 20 mm |
| MAXIMUM COARSE AGGREGATE SIZE | | |
| 3. NO BRECAK TYPE AGGREGATE IS TO BE USED. | | |
| 4. CEMENT TO BE TYPE SL TO ASSURE MAX CONCRETE SHRINKAGE TO BE 800µ TO 1010µ. | | |
| 5. NO ADMIXTURES ARE TO BE USED WITHOUT THE APPROVAL OF THE ENGINEERS. | | |
| 6. CURE ALL CONCRETE USING AN APPROVED METHOD IN ACCORDANCE WITH ASSE SPECIFICATION. CURING COMPOUNDS TO COMPLY WITH A53788. PVA BASED CURING COMPOUNDS ARE NOT ACCEPTABLE. | | |

67. THE FINISHED CONCRETE SHALL BE DENSE, HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. CONCRETE SHALL BE COMPACTED WITH MECHANICAL VIBRATORS

67. THE FINISHED CONCRETE SURFACE SHALL BE FREE OF CRACKS HAVING A CRACK WIDTH EQUAL TO OR GREATER THAN 0.1 mm AT TIME OF PRACTICAL COMPLETION. IF CRACKING EXCEEDS THIS LIMIT, THE CONTRACTOR SHALL MAKE GOOD THE CRACKS TO THE SATISFACTION OF THE SUPERINTENDENT WHICH MIGHT COMPRISE REPLACEMENT OF CONCRETE ELEMENT OR SEALING THE CRACKS WITH SILANE/SILICA FUME GEL OR OTHER WORKS.

CS. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON PLASTIC CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. PLASTIC TIPPED MILD STEEL CHAIRS SHALL NOT BE USED. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.

- C10. MAINTAIN COVER TO REINFORCEMENT AT CHAMBERS, DEEP GROOVES, REINETS, ETC.
- C11. NO HIGES, CHICES OR EXCEEDING OF PICES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE SUPERINTENDENT.
- C12. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE SUPERINTENDENT.
- C13. PILING AND IMMEDIATELY FOLLOWING FORMING, THE CONCRETE SHALL BE PROTECTED FROM WIND AND SUN. AININGS AND WIND BREAKS ARE TO BE UTILIZED FOR THIS PURPOSE.
- C14. CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 7 DAYS, AND PREVENTION OF LOSS OF MOISTURE. SHELTER OR WIND BREAKS MAY BE USED IF PROTECTED FROM WIND AND TRAFFIC. DO NOT USE APPLIED CURE AGENTS.
- C15. THE SUPERINTENDENT SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELAYED UNTIL FINAL APPROVAL IS OBTAINED.

F1. THE CONCRETE SHALL BE SCREDED TO THE REQUIRED CROSS SECTION PROFILE FREE OF DEPRESSIONS AND HIGH AREAS TO SATISFY THE REQUIREMENTS OF AN INITIAL FINISH.

- P2. FINAL FINISHING INCLUDES FLOATING AND TEXTURING THE PAYMENT AND SHALL COMMENCE ONLY AS SOON AS THE WATER SHEEN HAS LEFT THE PAYMENT SURFACE AND NOT IN ANY AREA WHERE THERE IS FREE SURFACE WATER.

FINISH

- FM2. THE DESIGN CERTIFICATION, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK AND FALSEWORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- FM3. DESIGN AND CONSTRUCTION AND STRIPPING TIMES SHALL COMPLY WITH AS 3610 AND AS 3660 UNLESS OTHERWISE NOTED OR APPROVED BY THE SUPERINTENDENT.

STRENGTH OR SERVICEABILITY AT THAT AGE. ONCE THE NOMINATED 28 DAY STRENGTH HAS BEEN ATTAINED THESE LOADS SHALL NOT EXCEED THE DESIGN SUPERIMPOSED LIVE LOADS.

- FIG. 5. THE FORMWORK SHALL NOT BE DESIGNED TO RELY ON RESTRAINT OR SUPPORT FROM THE PERMANENT STRUCTURE WITHOUT THE PRIOR APPROVAL OF THE SUPERINTENDENT.

| Issue | Details of Issue | Date of Issue | Approved | Chkd | Drn |
|-------|----------------------|---------------|----------|------|-----|
| A | ISSUED FOR REVIEW | 18.02.05 | MS | MS | AG |
| B | ISSUED FOR APPROVALS | 06.11.05 | MS | MS | AG |
| C | CU-DE-SAC REVISED | 06.11.05 | MS | MS | AG |
| D | ISSUED FOR APPROVALS | 18.02.05 | MS | MS | AG |
| E | ISSUED FOR REVIEW | 25.01.05 | MS | MS | AG |

Patterson Britton & Partners Pty Ltd
consulting engineers

V. D. AND M. BUBALO
ORCHARD STREET ACCESS ROAD
WARRIEWOOD

GENERAL NOTES & SPECIFICATIONS
SHEET 1 OF 2

| | |
|--------------|---------|
| Issue | 4670-02 |
| Cad File No. | C |
| Xref.(s) | 4670-0 |

1. GENERAL:
 - a. MINERAL AGGREGATES TO COMPLY WITH CLAUSE 2.1 - MATERIALS OF RITA SPECIFICATION R116 - ASPHALT (DENSE AND OPEN GRADED).
 - b. MINERAL FILLER TO COMPLY WITH AASHTO - 1800 MATERIAL, FILLERS FOR ASPHALT AND CLAUSE 2.12 - FILLER OF RITA SPECIFICATION R116 ASPHALT (DENSE AND OPEN GRADED).
 - c. BITUMEN BINDER SHALL COMPLY WITH CLAUSE 2.1.3 - BINDER OF RITA SPECIFICATION R116 - ASPHALT (DENSE AND OPEN GRADED).

- # SOIL EROSION AND SEDIMENT CONTROL NOTES

1. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED THE STANDARD RECOMMENDED BY THE NEW DEPARTMENT OF HOUSING'S BLUE BOOK, TITLE "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", 4TH EDITION, MARCH 2004.
 2. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL INFORM THEIR STAFF OF THEIR OBLIGATIONS UNDER THIS EROSION AND SEDIMENT CONTROL SECTION.
 3. SILT SOCKS AND GEOTEXTILE FILTER FABRIC SHALL BE INSTALLED AT ALL DRAINAGE INLET PITS.
 4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 5. ALL SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED AFTER EACH RAINFALL EVENT FOR STRUCTURAL DAMAGE, AND ALL TRAPPED SEDIMENT TO BE REMOVED TO THE APPROPRIATE STORMWATER.
 6. STABILISE ALL COMPLETED ROAD BATTERS WITH HYDROMULCH.
- ## CONSTRUCTION MATERIALS
1. MATERIALS AND WORKMANSHIP SHALL BE THE BEST OF THEIR RESPECTIVE KINDS, AND, UNLESS OTHERWISE SPECIFIED, SHALL CONFORM TO THE RELEVANT AUSTRALIAN STANDARDS.
 2. SUFFICIENT NOTICE SHALL BE GIVEN BY THE CONTRACTOR TO THE SUPERVISOR TO ENABLE ALL MATERIALS TO BE INSPECTED AND APPROVED. THE SUPERVISOR SHALL BE REQUIRED ALL MATERIALS ARE TO BE SUITABLY STACKED TO FACILITATE EXAMINATION.
 3. WHERE THE CONTRACTOR SUPPLIES MATERIALS OF A MIXED OR POOR QUALITY, THE SUPERVISOR SHALL HAVE THE POWER TO REQUIRE THE CONTRACTOR TO PICK OUT AND STACK THOSE MATERIALS WHICH IN HIS OPINION ARE SUITABLE FOR THE WORKS, AND TO HAVE THOSE UNSUITABLE REMOVED FROM THE SITE OF THE WORKS.

1. MATERIALS AND WORKMANSHIP SHALL BE THE BEST OF THEIR RESPECTIVE KINDS, AND, UNLESS OTHERWISE SPECIFIED, SHALL CONFORM TO THE RELEVANT AUSTRALIAN STANDARDS.

2. SUFFICIENT NOTICE SHALL BE GIVEN BY THE CONTRACTOR TO THE SUPERINTENDENT TO EXAMINE ANY MATERIALS THAT ARE BROUGHT ON THE SITE TO BE EXAMINED. ALL MATERIALS ARE TO BE SUITABLY STACKED TO FACILITATE EXAMINATION.

3. WHERE THE CONTRACTOR SUPPLIES MATERIALS OF A MIXED OR POOR QUALITY, THE SUPERINTENDENT SHALL HAVE THE POWER TO REQUIRE THE CONTRACTOR TO PICK OUT AND STOCK THOSE MATERIALS WHICH IN HIS OPINION ARE SUITABLE FOR THE WORKS, AND TO HAVE THOSE UNSUITABLE REMOVED FROM THE SITE OF THE WORKS.

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG | AH | AI | AJ | AK | AL | AM | AN | AO | AP | AQ | AR | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI | BJ | BK | BL | BM | BN | BO | BP | BQ | BR | BS | BT | BU | BV | BW | BX | BY | BZ | CA | CB | CC | CD | CE | CF | CG | CH | CI | CJ | CK | CL | CM | CN | CO | CP | CQ | CR | CS | CT | CU | CV | CW | CX | CY | CZ | DA | DB | DC | DD | DE | DF | DG | DH | DI | DJ | DK | DL | DM | DN | DO | DP | DQ | DR | DS | DT | DU | DV | DW | DX | DY | DZ | EA | EB | EC | ED | EE | EF | EG | EH | EI | EJ | EK | EL | EM | EN | EO | EP | EQ | ER | ES | ET | EU | EV | EW | EX | EY | EZ | FA | FB | FC | FD | FE | FF | FG | FH | FI | FJ | FK | FL | FM | FN | FO | FP | FQ | FR | FS | FT | FU | FV | FW | FX | FY | FZ | GA | GB | GC | GD | GE | GF | GG | GH | GI | GJ | GK | GL | GM | GN | GO | GP | GQ | GR | GS | GT | GU | GV | GW | GX | GY | GZ | HA | HB | HC | HD | HE | HF | HG | HH | HI | HJ | HK | HL | HM | HN | HO | HP | HQ | HR | HS | HT | HU | HV | HW | HX | HY | HZ | IA | IB | IC | ID | IE | IF | IG | IH | II | IJ | IK | IL | IM | IN | IO | IP | IQ | IR | IS | IT | IU | IV | IW | IX | IY | IZ | JA | JB | JC | JD | JE | JF | JG | JH | JI | IJ | JK | JL | JM | JN | JO | JP | JQ | JR | JS | JT | JU | JV | JW | JX | JY | JZ | KA | KB | KC | KD | KE | KF | KG | KH | KI | KJ | KK | KL | KM | KN | KO | KP | KQ | KR | KS | KT | KU | KV | KW | KX | KY | KZ | LA | LB | LC | LD | LE | LF | LG | LH | LI | LJ | LK | LL | LM | LN | LO | LP | LQ | LR | LS | LT | LU | LV | LW | LX | LY | LZ | MA | MB | MC | MD | ME | MF | MG | MH | MI | MJ | MK | ML | MM | MN | MO | MP | MQ | MR | MS | MT | MU | MV | MW | MX | MY | MZ | NA | NB | NC | ND | NE | NF | NG | NH | NI | NJ | NK | NL | NM | NN | NO | NP | NQ | NR | NS | NT | NU | NV | NW | NX | NY | NZ | OA | OB | OC | OD | OE | OF | OG | OH | OI | OJ | OK | OL | OM | ON | OO | OP | OQ | OR | OS | OT | OU | OV | OW | OX | OY | OZ | PA | PB | PC | PD | PE | PF | PG | PH | PI | PJ | PK | PL | PM | PN | PO | PP | PQ | PR | PS | PT | PU | PV | PW | PX | PY | PZ | QA | QB | QC | QD | QE | QF | QG | QH | QI | QJ | QK | QL | QM | QN | QO | QP | QQ | QR | QS | QT | QU | QV | QW | QX | QY | QZ | RA | RB | RC | RD | RE | RF | RG | RH | RI | RJ | RK | RL | RM | RN | RO | RP | RQ | RR | RS | RT | RU | RV | RW | RX | RY | RZ | SA | SB | SC | SD | SE | SF | SG | SH | SI | SJ | SK | SL | SM | SN | SO | SP | SQ | SR | SS | ST | SU | SV | SW | SX | SY | SZ | TA | TB | TC | TD | TE | TF | TG | TH | TI | TJ | TK | TL | TM | TN | TO | TP | TQ | TR | TS | TT | TU | TV | TW | TX | TY | TZ | UA | UB | UC | UD | UE | UF | UG | UH | UI | UJ | UK | UL | UM | UN | UO | UP | UQ | UR | US | UT | UU | UV | UW | UX | UY | UZ | VA | VB | VC | VD | VE | VF | VG | VH | VI | VJ | VK | VL | VM | VN | VO | VP | VQ | VR | VS | VT | VU | VV | VW | VX | VY | VZ | WA | WB | WC | WD | WE | WF | WG | WH | WI | WJ | WK | WL | WM | WN | WO | WP | WQ | WR | WS | WT | WU | WV | WW | WX | WY | WZ | XA | XB | XC | XD | XE | XF | XG | XH | XI | XJ | XK | XL | XM | XN | XO | XP | XQ | XR | XS | XT | XU | XV | XW | XX | XY | XZ | YA | YB | YC | YD | YE | YF | YG | YH | YI | YJ | YK | YL | YM | YN | YO | YP | YQ | YR | YS | YT | YU | YV | YW | YX | YY | YZ | ZA | ZB | ZC |
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INITIALS SHOWN IN THE ADJACENT ISSUE RECORDS INDICATE THE STAGES UNDERTAKEN IN THE DRAWING APPROVAL PROCESS. DRAWINGS ARE ONLY TO BE USED WHEN APPROVED BY PATTERSON BRITTON & PARTNERS AND THEN ONLY AS NOTED FOR DRG STATUS. THE ORIGINAL SIGNATURES CAN BE FOUND ON THE REVERSE SIDE OF THE ORIGINAL OF THE DRG REGISTER/TRANSFERRAL FORM No.5.2.2. ISSUED BY PATTERSON BRITTON & PARTNERS

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**Patterson Britton
& Partners Pty Ltd**
consulting engineers

| | |
|---------|---|
| Client | V. D. AND M. BUBALO |
| Project | ORCHARD STREET ACCESS ROAD WARREWOOD |

| | |
|--|--------------|
| <p>GENERAL NOTES & SPECIFICATIONS SHEET 2 OF 2</p> | <p>Title</p> |
|--|--------------|

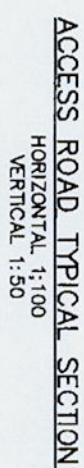
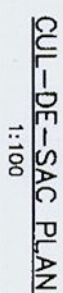
| | |
|--------------|---------|
| Drawing No. | 4670-03 |
| Issue | C |
| Cad File No. | 4670-02 |
| Xref. (*) | |

APPROVED DEVELOPMENT CONSENT PLANS

PITTSBURGH WATER COUNCIL

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

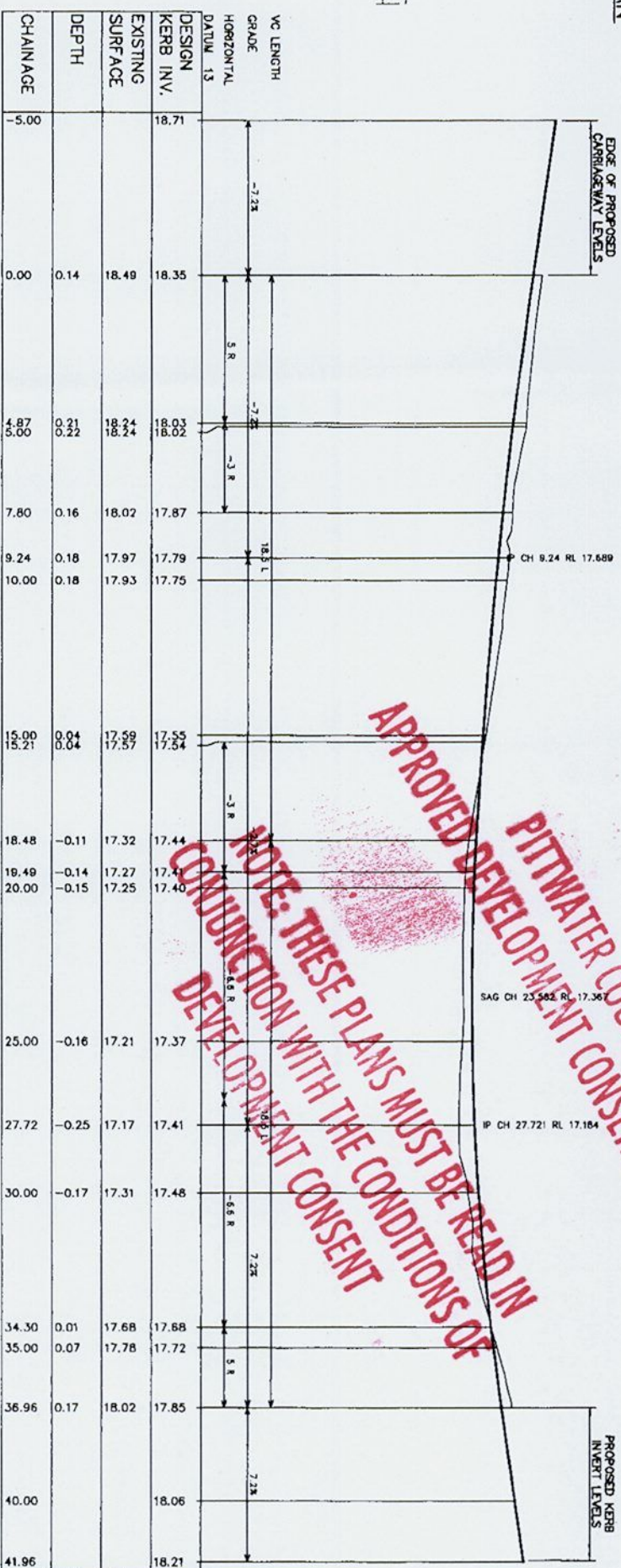




| CHAINAGE | EXISTING SURFACE | DESIGN | DATUM 14 | GRADE |
|----------|------------------|--------|----------|---------------|
| 12.00 | 18.15 | 18.00 | | |
| 14.00 | 17.99 | 17.85 | | |
| 16.00 | 17.83 | 17.72 | | APPROX. 6.7% |
| 18.00 | 17.66 | 17.62 | | |
| 20.00 | 17.38 | 17.52 | | |
| 21.75 | 17.25 | 17.42 | | |
| 22.20 | 17.21 | 17.52 | | 17.0% |
| 25.50 | 16.94 | 16.94 | | APPROX. 15.4% |

DRIVEWAY LONG SECTION

SCALE HORIZONTAL 1:100
SCALE VERTICAL 1:100



CUL-DE-SAC KERB DEVELOPMENT

SCALE HORIZONTAL 1:100
SCALE VERTICAL 1:50



DRG STATUS: **TENDER NOT FOR CONSTRUCTION**

[illegible]

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■ ■ ■ ■ ■
Patternson
Britton
& Partners Pty Ltd
consulting engineers

V, D AND M BUBALO

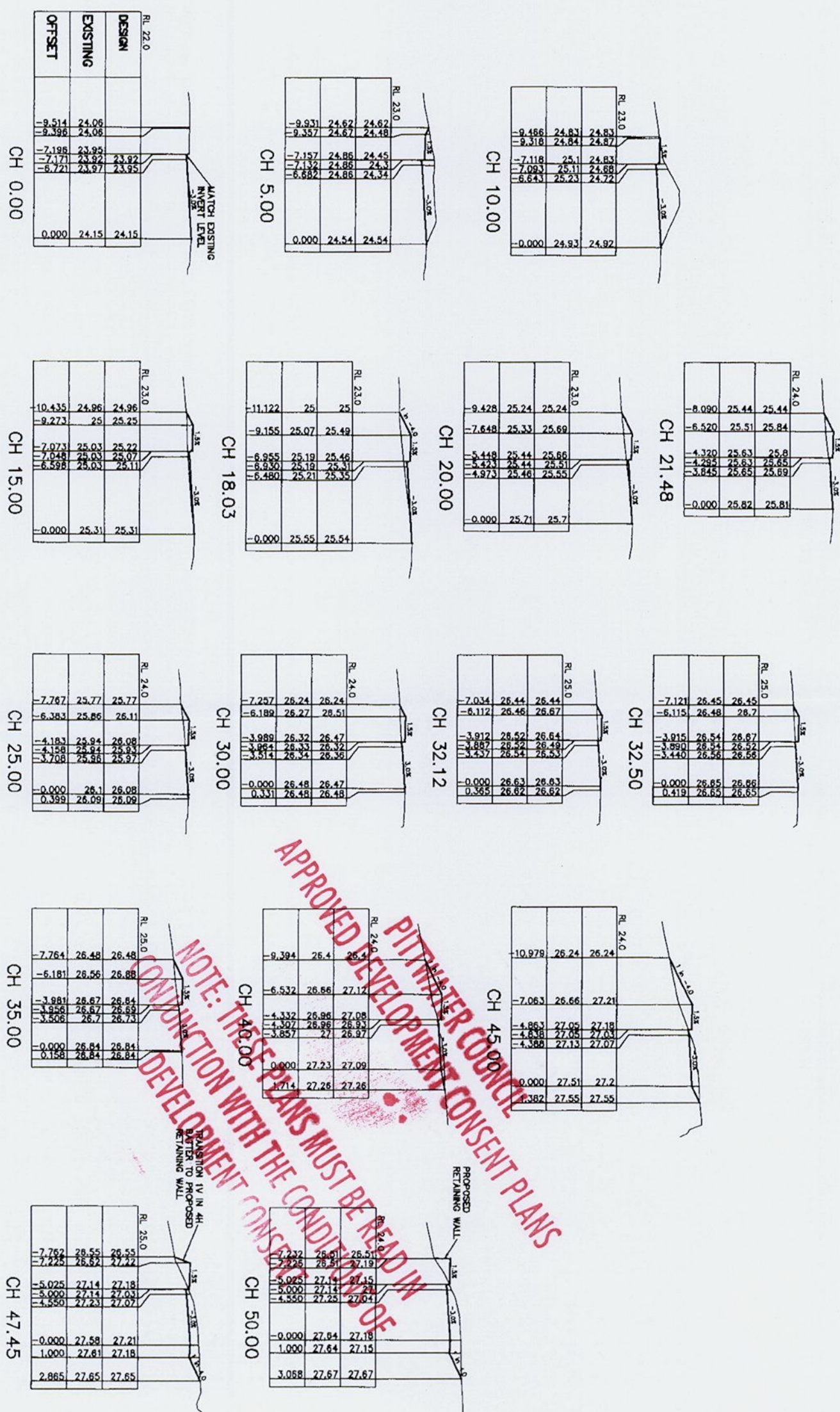
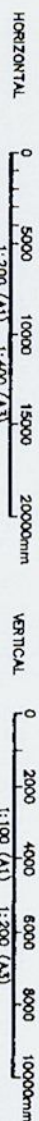
| Project |
|-----------------------------|
| CONCRETE STREET ACCESS ROAD |

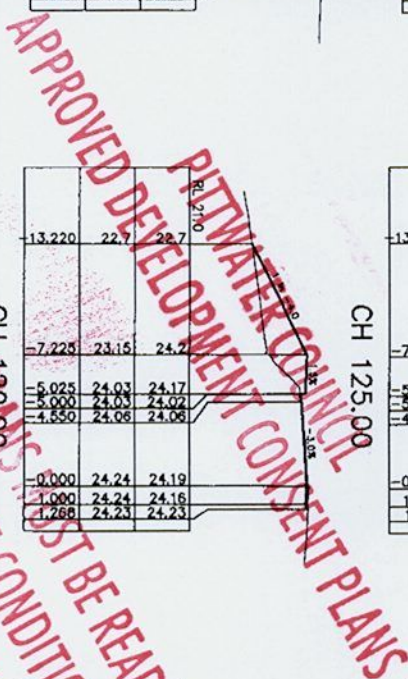
ORCHARD STREET | ACCESS ROAD
WARRIEWOOD

**CUL-DE-SAC KERB DEVELOPMENT
AND ACCESS ROAD
TYPICAL CROSS SECTION**

| | |
|--------------|---------|
| Drawing No. | 4670-05 |
| Issue | D |
| Cod File No. | 4670-00 |
| Xref.(s) | |

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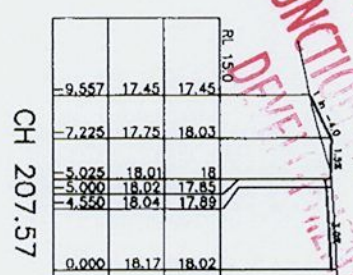
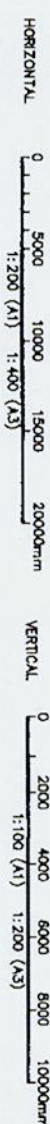
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DRG STATUS: TENDER, NOT FOR CONSTRUCTION

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DEVELOPMENT CONSENT PLANS

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| A | ISSUED FOR REVIEW | 25.01.05 | ARG | MS | | |
| B | ISSUED FOR APPROVALS | 18.02.05 | ARG | MS | | |
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Project
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WARREWOOD**

Title
**PROPOSED SURFACE CONTOURS
AND PAVEMENT DESIGN**

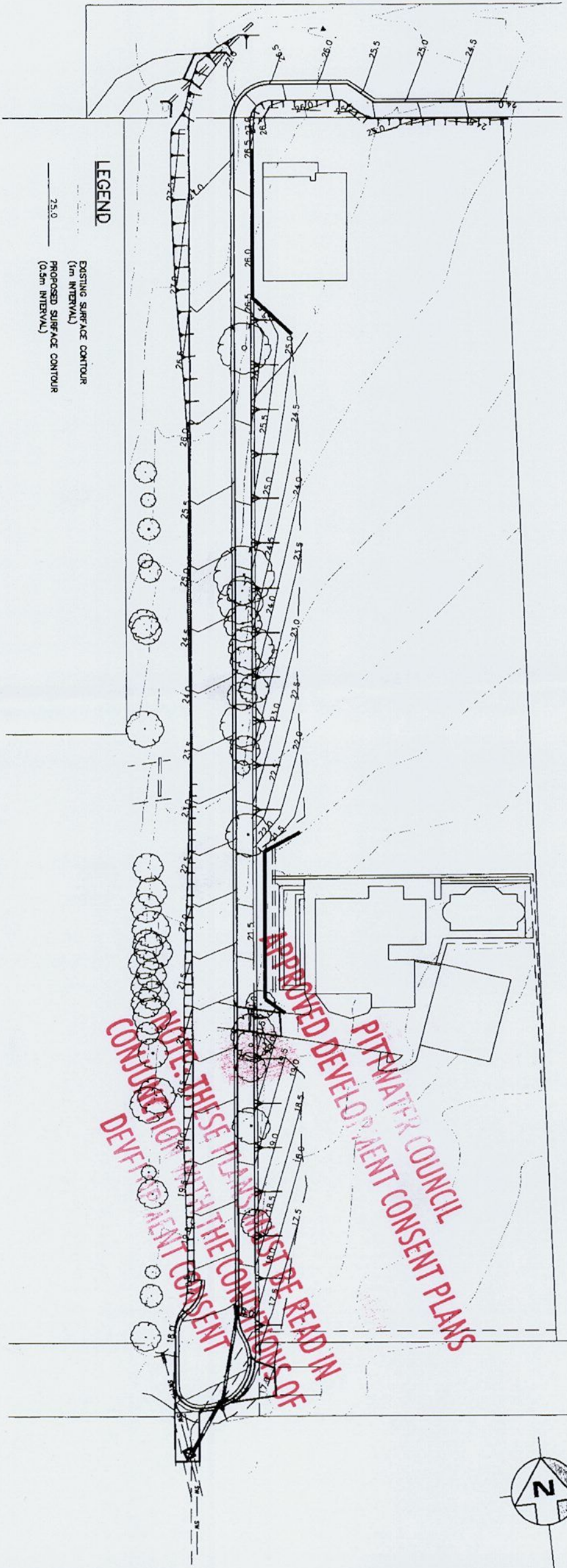
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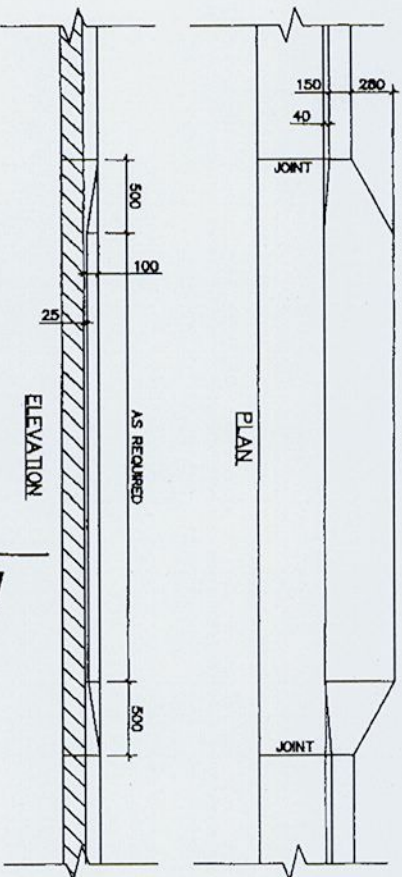


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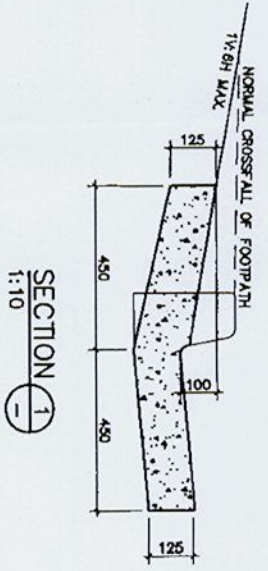
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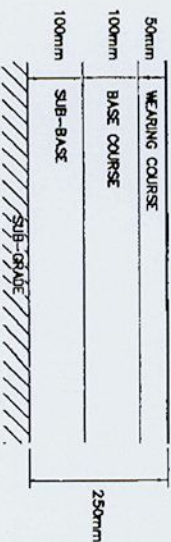


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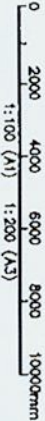
TYPICAL ROAD PAVEMENT DETAIL

- NOTE
1. THE BASE COURSE MATERIAL CAN BE DENSE OR RECYCLED CONCRETE SATISFYING THE REQUIREMENTS OF DCS40 STANDARD PROVIDED IN THE R14 3051 SPECIFICATION. THE SUB-BASE MATERIAL CAN BE CRUSHED SANDSTONE OR RECYCLED CONCRETE SATISFYING THE REQUIREMENTS OF DCS40 STANDARD PROVIDED IN THE R14 3051 SPECIFICATION.
 2. THE MINIMUM COMPACTION DRY DENSITY RATIOS ARE AS FOLLOWS (AS1289.5.4.1-1993):
 - BASE COURSE 95% MODIFIED
 - SUB-BASE 95% MODIFIED
 - SUB-GRADE 100% STANDARD OR DENSITY RATIO OF 85%
 3. PAVEMENT WEARING COURSE TO CONSIST OF A 30mm THICK LAYER OF AC14 OVERLAIN BY A 20mm THICK LAYER OF AC10.
 4. FOR DETAILS OF THE REQUIRED ROAD PAVEMENT REFER TO PAVEMENT DESIGN REPORT PREPARED BY GEOTECHNIQUE PTY LTD, 14th JANUARY 2005.

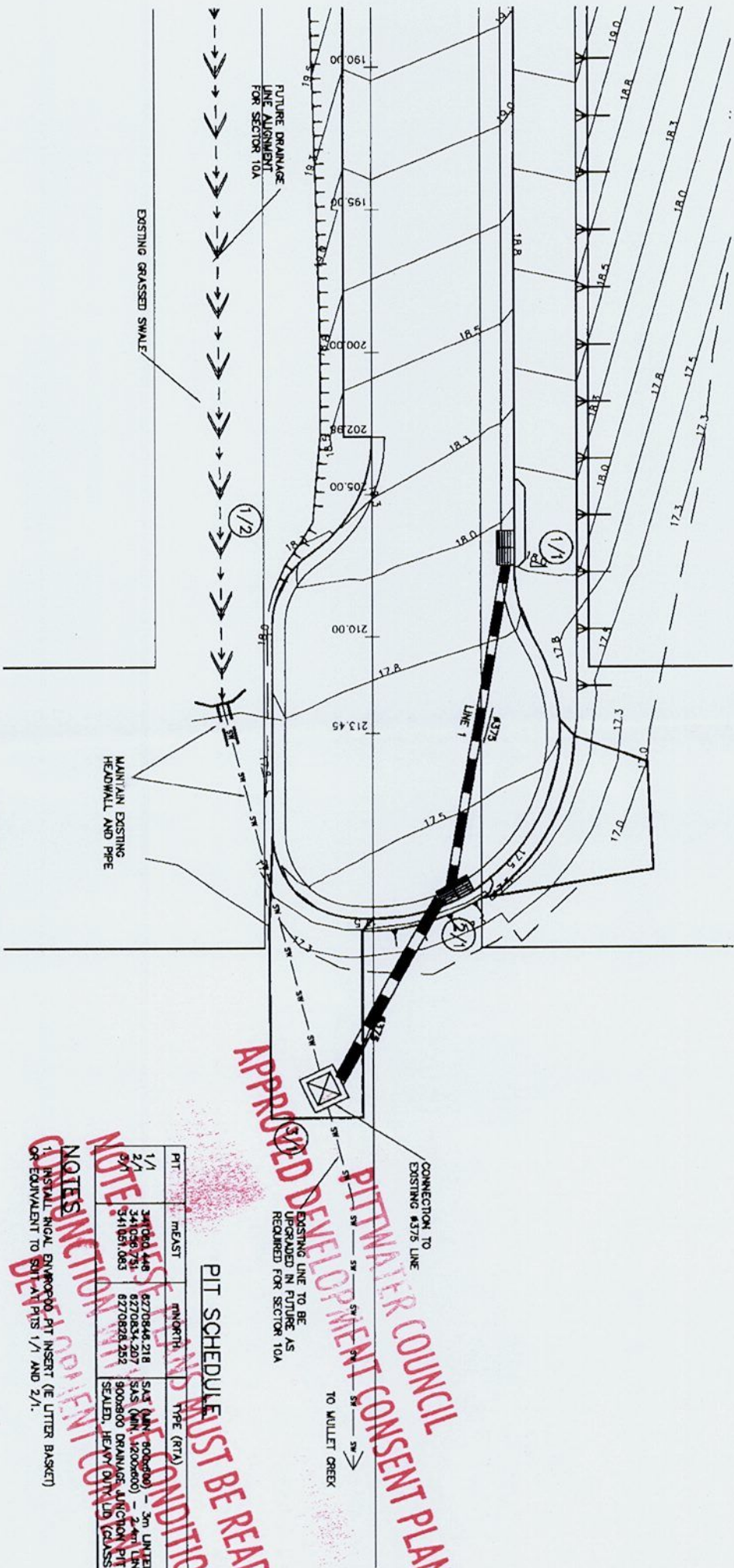


A1

| | | | |
|--|----------------------|-----------------------------------|-----|
| DRG STATUS : TENDER, NOT FOR CONSTRUCTION | | | |
| Issue | Details of Issue | Des'd | Dwn |
| C | QUL-DE-SAC REVISED | MS | MS |
| B | ISSUED FOR APPROVALS | FC | MS |
| A | ISSUED FOR REVIEW | ARG | MS |
| Date | | | |
| Approved | | | |
| CHkd | | | |
| Date | | | |
| INITIALS SHOWN IN THE ADJACENT ISSUE RECORDS INDICATE THE STAGES UNDERTAKEN IN THE DRAWING APPROVAL PROCESS. DRAWINGS ARE ONLY TO BE USED WHEN APPROVED BY THE DESIGNER. ONLY AS NOTED FOR DRG STATUS. THE ORIGINAL SIGNATURES CAN BE FOUND ON THE REVERSE SIDE OF THE ORIGINAL OF THE DRG REGISTER/TRANSMITTAL FORM No.52.2. HELD BY PATTERSON BRITTON & PARTNERS | | | |
| 100 Mount Street North Sydney 2060 Telephone: (02) 9957 1815 Facsimile: (02) 9957 1287 Email: info@pbr.com.au A/CN: 003 235 235 | | | |
| Patterson Britton & Partners Pty Ltd consulting engineers | | | |
| Client V. D AND M BUBALO | | Title STORMWATER DRAINAGE PLAN | |
| Project ORCHARD STREET ACCESS ROAD WARRIEWOOD | | Drawing No. 4670-10 | |
| | | Issue C | |
| | | Cod File No. 4670-10 | |
| | | Xref(s) | |



DRAINAGE PLAN
1:100



| PIT | MEAST | MINORTH | TYPE (RT) |
|-----|------------|-------------|--|
| 1/1 | 341030.731 | 8270834.218 | S&S (M/N, 600x600) - 3m UNIT |
| 2/1 | 341030.731 | 8270834.207 | S&S (M/N, 600x600) - 2.4m UNIT |
| 1/2 | 341031.063 | 8270828.232 | 800x800 DRAINAGE JUNCTION PIT SEALED HEAVY DUTY LIN (CLASS D) |

PIT SCHEDULE

NOTES
1. EXISTING 800x800 PIT INSERT (IE LITTER BASKET)
OR EQUIVALENT TO SET AT PITS 1/1 AND 2/1.



A1

DRG STATUS : **TENDER, NOT FOR CONSTRUCTION**

| Issue | Detail of Issue | Date | Appr'd | Chk'd | Dim | Rev'd |
|-------|----------------------|----------|--------|-------|-----|-------|
| A | ISSUED FOR REVIEW | 23.01.05 | | MS | ARG | |
| B | ISSUED FOR APPROVALS | 18.02.05 | | MS | ARG | |
| C | CLL-DE-SAC REVISED | 08.11.05 | | MS | ARG | |

INITIALS SHOWN IN THE ADJACENT ISSUE RECORDS INDICATE THE STAGES UNDERTAKEN IN THE DRAWING APPROVAL PROCESS. DRAWINGS ARE ONLY TO BE USED WHEN APPROVED BY PATERSON BRITTON & PARTNERS AND THEN ONLY AS NOTED FOR DRG STATUS. THE REVERSE SIDE OF THE ORIGINAL OF THE DRG REGISTER/TRANSMITTAL FORM No.5.2.2 HELD BY PATERSON BRITTON & PARTNERS

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Patterson Britton & Partners Pty Ltd
consulting engineers

Client
V. D AND M BUBALO

Project
ORCHARD STREET ACCESS ROAD
WARRIEWOOD

Job No
4670-11

Issue
C

Cad File No.
4670-11

NOTES
1. FLOWS SHOWN ARE FOR A 20yr ARI EVENT.

NOT TO SCALE

| Chainage | Invert Level | Surface Level | HGL |
|----------|--------------|---------------|--------|
| 0 | 17.200 | 18 | 17.352 |
| 12.57 | 16.300 | 17.1 | 16.865 |
| 20.79 | 16.300 | 16.85 | 16.397 |

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

PITTSBURGH COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS

DataWorks Document Number: 2282474



APPROVED DEVELOPMENT CONSENT PLANS
PITTSBURGH WATER COUNCIL
MAY 1995
MUST BE READ IN
CONNECTION OF

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

[illegible]