

29 September, 2017

General Manager
Northern Beaches Council
PO Box 882
Mona Vale NSW 1660

Dear Sir/Madam,


Development Application No. N0231/17
Subject Address: 38 Sturdee Lane, Lovett Bay

For Council's information, please find enclosed Construction Certificate No. 2017/5917 issued for Upgrade of Existing Waste Water Treatment System at the above address, accompanied by:

- Copy of Construction Certificate application form
- Notice of Commencement of Work and Appointment of Principal Certifying Authority
- Home Warranty Insurance Certificate
- Cheque for \$36.00 being the prescribed fee to receive the above certificate.

NB: Please forward receipt for the above fee to **Insight Building Certifiers Pty Ltd, PO Box 326, Mona Vale 1660.**

Yours Faithfully,



Tom Bowden
Insight Building Certifiers Pty Ltd

\$36

PRVC

Rec: 416 639

Construction Certificate Determination

issued under the Environmental
Planning and Assessment Act 1979
Section 109C (1) (b), 81A (2) and 81A (4)

Certificate No. 2017/5917

| | |
|---|---|
| Council | Northern Beaches |
| Determination Date of issue | 29 September 2017 |
| Subject land Address Lot No, DP No. | 38 Sturdee Lane, Lovett Bay Lot 6 DP 552628 |
| Applicant Name Address Contact No. | Mr Albert Townsend 38 Sturdee Lane, Lovett Bay NSW 2105 0412 424 242 |
| Owner Name Address Contact No. | Manderrah Pty Ltd Level 10, Hudson House 131 Macquarie Street, Sydney NSW 2000 9255 7650 |
| Description of Development Type of Work | Upgrade of Existing Waste Water Treatment System |
| Builder or Owner/Builder Name Contractor Licence No/Permit | Pittwater Pumps & Tanks n/a |
| Value of Work Building | \$18,650.00 |

Attachments

- Copy of completed Construction Certificate Application Form
- Aerated Wastewater Treatment System Accreditation reference no. AWTS 017 issued by NSW Environmental Health dated 29 September 2015

Plans & Specifications certified

The development is to be carried out in compliance with the following plans and documentation listed below and endorsed with *Insight Building Certifiers* stamp.

- Architectural Plans & Construction Specification drawing no. 2127-DA 01 prepared by Stephen Crosby & Associates Pty Ltd dated March 2017
- Completed Form 2 (Part B) of Northern Beaches Council Geotechnical Risk Management Policy, endorsed by Jack Hodgson Consultants Pty Ltd dated 22 September 2017

Certificate

I hereby certify that the above Plans, documents or Certificates, satisfy:

- The relevant provisions of the Building Code of Australia
- The relevant conditions of this Development Consent

and that work completed in accordance with the documentation accompanying the application for this Certificate (and any modifications as verified by me and shown on that documentation) will comply with the requirements of the Environmental Planning & Assessment Regulation referred to in Section 81A(5) of the Environmental Planning & Assessment Act, 1979.

Signed



Date of endorsement

29 SEP 2017

Certificate No.

2017/5917

Certifying Authority

Name of Accredited Certifier

Tom Bowden

Accreditation No.

BPB0042

Accreditation Authority

Building Professionals Board

Contact No.

(02) 9999 0003

Address

13/90 Mona Vale Road, Mona Vale NSW 2103

Development Consent

Development Application No.

N0231/17

Date of Determination

14 July 2017

BCA Classification

10b

MANDERRAH PTY LIMITED

ABN 19111080356

Level 10, Hudson House, 131 Macquarie Street, Sydney NSW 2000 Australia
Telephone: (61-2) 9255 7650 Facsimile: (61-2) 9255 7610

25 August 2017

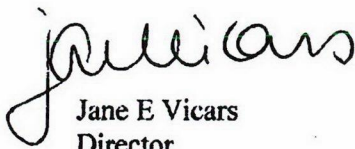
Attention: Natalie Parkinson
Insight Building Certifiers Pty Ltd
Suite 13/90 Mona Vale Road
Mona Vale NSW 2103

Dear Ms Parkinson


This is to confirm our submission for:

- (i) Approval for Insight Building Certifiers Pty Ltd to issue a Construction Certificate for works associated with Development Consent no. N0231/17
- (ii) Approval for Insight Building Certifiers Pty Ltd to be appointed as Principal Certifying Authority (PCA).
- (iii) Approval for Mr Albert Townsend to sign as the Applicant on behalf of Manderrah Pty Ltd.

Yours sincerely



Jane E Vicars
Director



James W Vicars
Director

RECEIVED
17 AUG 2017

INSIGHT building certifiers pty ltd

BY:Construction Certificate ✓

~~Modified Construction Certificate~~

APPLICATION FOR A CONSTRUCTION CERTIFICATE

Environmental Planning and Assessment Act 1979 & Environmental Planning and Assessment Regulation 2000

Description of Building Work

UPGRADE OF EXISTING ON-SITE WASTEWATER TREATMENT SYSTEM

Estimated cost of work

\$18,650

BCA Classification(s)

10B

Development Consent Reference no.

N0231/17

Date of Issue

14 JULY 2017

Modified Consent Reference no. (If applicable)

Date of Issue (If applicable)

Property Address

Unit/Street no.

Street name

38

STURDEE LANE

Suburb

Post code

LOVETT BAY

2105

Lot no.

DP no.

6

552628

Accompanying Documents

- Appropriate Architectural Plans and Specifications
- All information required by *Part 3 of Schedule 1 Forms* of the Regulation (see over)

I/We, the owner/s of the abovementioned property, hereby make application to Tom Bowden/Heath McNab of Insight Building Certifiers Pty Ltd (Insight) for a Construction Certificate for the building work described above and, in doing so, I/we also declare that the documents provided and asserted by me as a copy of a development consent and incorporated plans are a true copy of same as issued by the relevant consent authority or the Land and Environment Court.

Owner 1 Name: MANDERRAH PTY LTD

Owner 2 Name:

Owner's Signature:

J. Mican
DIRECTOR

Owner's Signature:

Date:

Date:

Owner's Address:

LEVEL 10, HUDSON HOUSE
131 MACQUARIE ST. SYDNEY
N.S.W. 2020

Daytime Telephone:

9255 7650

Mobile: 0412 424242

[Office Use Only]: Date received by Accredited Certifier:.....

Environmental Planning & Assessment Regulations 2000

Schedule 1 – Part 3(6) – Documents to accompany application for Construction Certificates

- (1) An application for a construction certificate must be accompanied by the following documents:
 - (a) if the development involves building work (including work in relation to a dwelling-house or a building or structure that is ancillary to a dwelling-house):
 - (i) a detailed description of the development, and
 - (ii) appropriate building work plans and specifications,
 - (b) if the development involves building work (other than work in relation to a dwelling-house or a building or structure that is ancillary to a dwelling-house or work that relates only to fire link conversion):
 - (i) a list of any existing fire safety measures provided in relation to the land or any existing building on the land, and
 - (ii) a list of the proposed fire safety measures to be provided in relation to the land and any building on the land as a consequence of the building work,
 - (c) if the development involves subdivision work, appropriate subdivision work plans and specifications,
 - (d) in the case of development to which clause 6A applies, such other documents as any BASIX certificate for the development requires to accompany the application.
- (2) A detailed description of the development referred to in subclause (1) (a) (i) must indicate the following matters:
 - (a) for each proposed new building:
 - (i) the number of storeys (including underground storeys) in the building,
 - (ii) the gross floor area of the building (in square metres),
 - (iii) the gross site area of the land on which the building is to be erected (in square metres),
 - (b) for each proposed new residential building:
 - (i) the number of existing dwellings on the land on which the new building is to be erected,
 - (ii) the number of those existing dwellings that are to be demolished in connection with the erection of the new building,
 - (iii) the number of dwellings to be included in the new building,
 - (iv) whether the new building is to be attached to any existing building,
 - (v) whether the new building is to be attached to any other new building,
 - (vi) whether the land contains a dual occupancy,
 - (vii) the materials to be used in the construction of the new building (using the abbreviations set out in clause 7 of this Schedule).
- (3) Appropriate building work plans and specifications referred to in subclause (1) (a) (ii) include the following:
 - (a) detailed plans, drawn to a suitable scale and consisting of a block plan and a general plan, that show:
 - (i) a plan of each floor section, and
 - (ii) a plan of each elevation of the building, and
 - (iii) the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground, and
 - (iv) the height, design, construction and provision for fire safety and fire resistance (if any),
 - (b) Specifications for the development:
 - (i) that describe the construction and materials of which the building is to be built and the method of drainage, sewerage and water supply, and
 - (ii) that state whether the materials to be used are new or second-hand and (in the case of second-hand materials) give particulars of the materials to be used,
 - (c) a statement as to how the performance requirements of the *Building Code of Australia* are to be complied with (if an alternative solution, to meet the performance requirements, is to be used),
 - (d) a description of any accredited building product or system sought to be relied on for the purposes of section 79C (4) of the Act,
 - (e) copies of any compliance certificate to be relied on,
 - (f) if the development involves building work to alter, expand or rebuild an existing building, a scaled plan of the existing building,
 - (g) in the case of development to which clause 6A applies, such other matters as any BASIX certificate for the development requires to be included in the plans and specifications.
- (3A) An application for a construction certificate that relates only to fire link conversion need only be accompanied by a document that describes the design and construction, and mode of operation, of the new fire alarm communication link.
- (4) Appropriate subdivision work plans and specifications referred to in subclause (1) (c) include the following:
 - (a) details of the existing and proposed subdivision pattern (including the number of lots and the location of roads),
 - (b) details as to which public authorities have been consulted with as to the provision of utility services to the land concerned,
 - (c) details engineering plans as to the following matters:
 - (i) earthworks,
 - (ii) roadworks,
 - (iii) road pavement,
 - (iv) road furnishings,
 - (v) stormwater drainage,
 - (vi) water supply works,
 - (vii) sewerage works,
 - (viii) landscaping works,
 - (ix) erosion control works,
 - (d) copies of any compliance certificates to be relied on.

6A BASIX certificate required for certain development

- (1) This clause applies to:
 - (a) BASIX affected development, and
 - (b) BASIX optional development in relation to which a person made a development application that has been accompanied by a BASIX certificate or BASIX certificates (despite there being no obligation under clause 2A for it to be so accompanied).
- (2) In addition to the documents required by clause 6, an application for a construction certificate for any development to which this clause applies must also be accompanied by a BASIX certificate or BASIX certificates for the development, being either the BASIX certificate applicable to the development when the relevant development consent was granted or some other BASIX certificate or BASIX certificates that has or have been issued no earlier than 3 months before the date on which the application is made.
- (3) If the proposed development involves the alteration, enlargement or extension of a BASIX affected building that contains more than one dwelling, a separate BASIX certificate is required for each dwelling concerned.

MANDERRAH PTY LIMITED

ABN 19111080356

Level 10, Hudson House, 131 Macquarie Street, Sydney NSW 2000 Australia
Telephone: (61-2) 9255 7650 Facsimile: (61-2) 9255 7610

25 August 2017

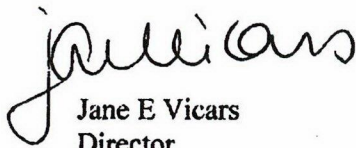
Attention: Natalie Parkinson
Insight Building Certifiers Pty Ltd
Suite 13/90 Mona Vale Road
Mona Vale NSW 2103

Dear Ms Parkinson


This is to confirm our submission for:

- (i) Approval for Insight Building Certifiers Pty Ltd to issue a Construction Certificate for works associated with Development Consent no. N0231/17
- (ii) Approval for Insight Building Certifiers Pty Ltd to be appointed as Principal Certifying Authority (PCA).
- (iii) Approval for Mr Albert Townsend to sign as the Applicant on behalf of Manderrah Pty Ltd.

Yours sincerely



Jane E Vicars
Director



James W Vicars
Director



Health

Certificate of Accreditation

Sewage Management Facility

Aerated Wastewater Treatment System

This Certificate of Accreditation is issued by the Secretary of the NSW Ministry of Health pursuant to Clause 41(1) of the Local Government (General) Regulation 2005.

System: Econocycle model ENP 10-2 AWTs

Manufacturer: Eco-septic Pty Ltd t/a Econocycle

Of: 15 Econo Place, Silverdale, NSW, 2752

The Econocycle model ENP 10-2 AWTs as described in Schedule 1, has been accredited as a sewage management facility for use in single domestic premises in NSW. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2.

*Director, Environmental Health
for Secretary (delegation PH335)*

Issued: 29 September 2015

Certificate No: AWTs 017

Expires: 31 December 2020

**COUNCIL
COPY**

This plan / document
forms part of
Construction Certificate
no. 2017 / 5917

Schedule 1: Specification

Econocycle model ENP 10-2 Aerated Wastewater Treatment System

General Description

The Econocycle ENP 10-2 Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Econocycle ENP 10-2 AWTS is contained in a vertical axis type cylindrical tapered injection moulded polypropylene septic tank and collection well each with design capacities of either 3000 litres (Everhard tanks) or 3200 litres (Reln tanks). The operational water level in the system is 1300 mm. The system consists of:

- A primary treatment/septic tank with a capacity of 3000 litres;
- A secondary treatment/collection well with a capacity of 3000 litres and containing:
 - A contact aeration chamber with a total capacity of 2100 litres, divided into two sections and each containing a block of contact filter media measuring 800 mm long x 800 mm wide x 1200 mm high with a surface area of 50 m²;
 - A sedimentation/clarification chamber with a capacity of 380 litres;
 - An irrigation pump chamber with a capacity of 380 litres incorporating a capacity of 300 litres for chlorine contact of the effluent;
- A chlorine disinfection unit installed on the outlet of the clarifying filter;
- Air is supplied to the contact aeration chamber by an air blower with an output of 80 litres/minute at 1.5 m water depth;
- An submersible irrigation pump which delivers a minimum flow of 2.0 m³/hour at a minimum head of 7 m, or better.

Schedule 2: Conditions of Accreditation

1.0 General

- 1.1 For each installation the owner/occupier of the premises shall make an application to the local authority to install an Econocycle ENP 10-2 AWTS as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 26 of the Local Government (General) Regulation 2005.
- 1.2 The Econocycle ENP 10-2 AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Ministry of Health.
- 1.3 Any modification or variations to the accredited design of the Econocycle ENP 10-2 AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Director-General of the NSW Ministry of Health.
- 1.4 Each Econocycle ENP 10-2 AWTS shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:
 - The brand name of the system;
 - The manufacturer's name or registered trademark;
 - The month and year of manufacture.
- 1.5 The manufacturer shall supply with each Econocycle ENP 10-2 AWTS and owner's manual, which sets out the care, operation, maintenance and on-going management requirements of the system.

- 1.6 The manufacturer shall provide the following information to each local authority where it is intended to install an AWTS in their area once Ministry accreditation has been obtained:
- | | |
|-----------------------------------|--|
| • Statement of warranty | • Engineering Drawings on A3 format |
| • Statement of service life | • Detailed Specifications |
| • Quality Assurance Certification | • A4 Plans |
| • Installation Manual | • Accreditation documentation from NSW Health. |
| • Service Manual | |
| • Owner's Manual | |
| • Service Report Form | |

2.0 Installation and Commissioning

- 2.1 The local authority should require that on completion of the installation of the Econocycle ENP 10-2 AWTS, the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed and commissioned in accordance with its design, conditions of accreditation and any additional requirements of the local authority.
- 2.2 The local authority should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

3.0 Maintenance

- 3.1 The local authority shall require the owner/occupier of a premises to enter into an annual service contract with a representative of Econocycle or a service contractor or company acceptable to the local authority.
- 3.2 The Econocycle ENP 10-2 AWTS shall be serviced at three monthly intervals in accordance with the details set out in the owner's and service manual.
- 3.3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including:
- The chlorinator and replenishment of the disinfectant,
 - Pumps, air blower, fan or air venturi,
 - The alarm system (where possible),
 - Slime growth on the filter media,
 - Operation of the sludge return system,
 - The effluent irrigation area,
 - On-site testing for free residual chlorine, pH and dissolved oxygen.
- 3.4 The local authority should require that a service report sheet, in triplicate, is completed for each service. The original shall be given to the owner, the duplicate forwarded to the local authority and the triplicate retained by the service contractor.

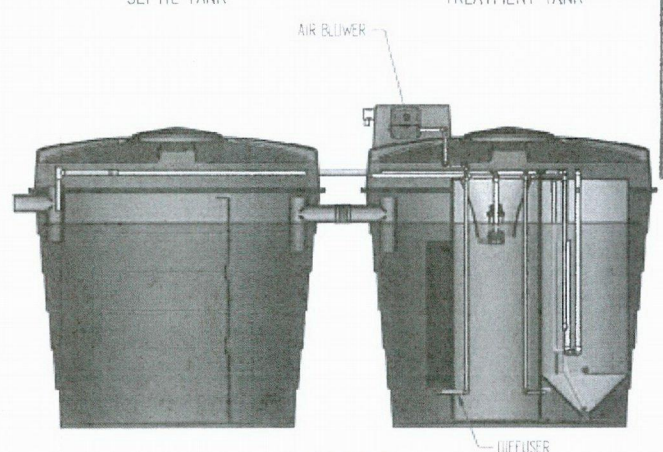
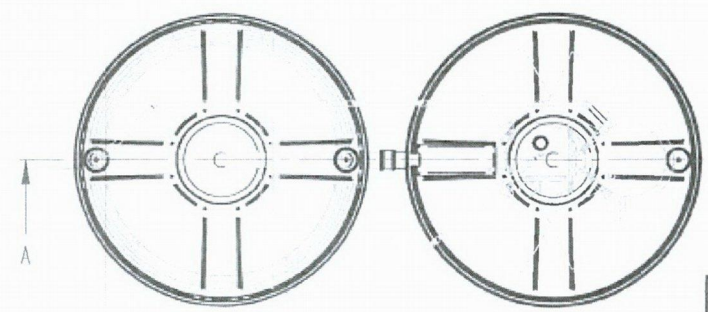
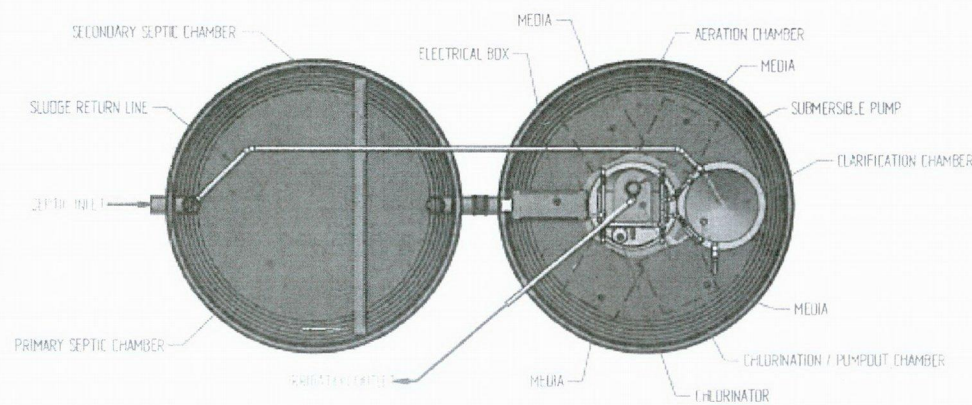
4.0 On-going Management

- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Econocycle ENP 10-2 AWTS. The plan shall include details of:
- the treatment process,
 - procedures to be followed in the event of a system failure,
 - emergency contact numbers,
 - maintenance requirements,
 - inspection and sampling procedures to be followed as part of the on-going monitoring program developed by the local authority.
- 4.2 Effluent from the Econocycle ENP 10-2 AWTS taken in any random grab sample shall comply with the following standard:
- BOD⁵ (less than 30 mg/L)
 - TSS (less than 45 mg/L)
 - E. coli (less than 100 cfu/100 ml)
 - Free residual chlorine (greater than 0.2 and less than 2.0 mg/L)

5.0 Permitted uses

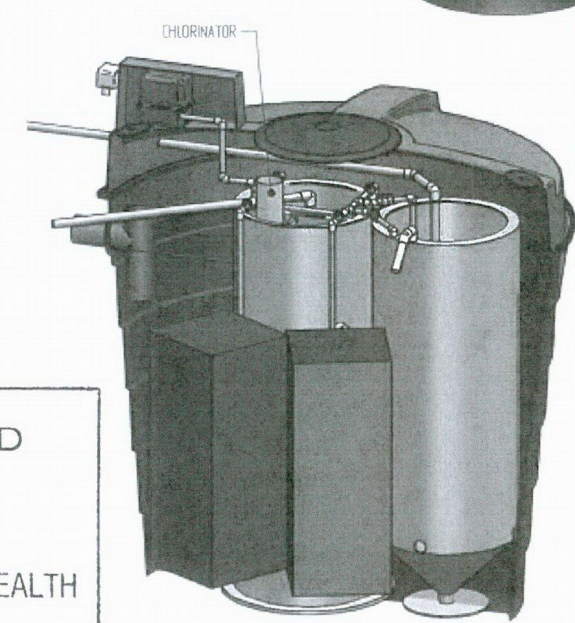
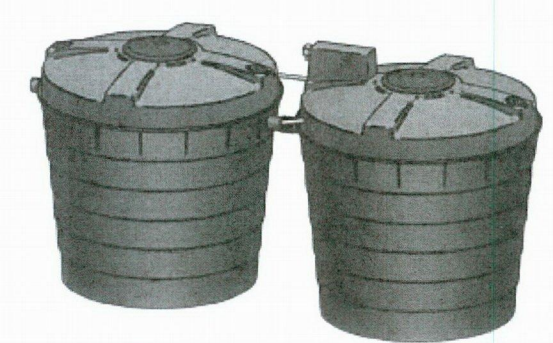
- 5.1 The effluent is suitable for re-use for garden purposes by way of any of the forms of irrigation as described in AS/NZS 1547:2000:
- above ground spray irrigation; or
 - surface drip irrigation covered by mulch; or
 - sub-surface drip irrigation installed at around 100 mm depth.

Each of the three forms of irrigation is subject to the approval of the local authority.



SECTION A-A

APPROVED
29 SEP 2015
NSW MINISTRY OF HEALTH



- NOTES
1. PARTS AND/OR CONFIGURATIONS MAY CHANGE WITHOUT NOTICE.
 2. SEPTIC TANKS MANUFACTURED AND TESTED IN ACCORDANCE WITH AS/NZS 1546.1200B

| | | | | |
|---|--|---|--|------------------------|
| Econocycle <small>AERATED WASTEWATER TREATMENT SYSTEMS</small> | | <small>UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MM</small> | PROJECT: PLASTIC TWIN TANK TITLE: PLASTIC TWIN TANK SYSTEM CERTIFICATION DRAWING DATE: 19/10/2010 DRAWN BY: P. MEKAY CHECKED BY: P. MEKAY DESIGNED BY: P. MEKAY PROJECT MANAGER BY: P. MEKAY | SHEET NO: A3 1 OF 1 |
| COPYRIGHT <small>THIS DRAWING IS THE PROPERTY OF ECONOCYCLE AND IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF ECONOCYCLE. ALL RIGHTS ARE RESERVED.</small> | SCALE: DO NOT SCALE DRAWN BY: P. MEKAY CHECKED BY: P. MEKAY DESIGNED BY: P. MEKAY PROJECT MANAGER BY: P. MEKAY | DATE: 19/10/2010 DRAWN BY: P. MEKAY CHECKED BY: P. MEKAY DESIGNED BY: P. MEKAY PROJECT MANAGER BY: P. MEKAY | 124_2210 A3 | 1 OF 1 |

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 – PART B - To be submitted with detailed design for construction certificate

PART B Declaration made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the incorporation of the Geotechnical issues into the project design

I, Peter Thompson on behalf of Jack Hodgson Consultants
(insert name) (trading or company name)

on this the 22/09/2017
(date)

certify that I am a Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater – 2009 and I am authorised by the above organization/company to issue this document and to certify that the organization/company has a current professional indemnity policy of at least \$2million. I also certify that I have reviewed the design plans and structural design plans in accordance for the Construction Certificate Stage and that I am satisfied that:

Please mark appropriate box

- ☐ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto
☐ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy

Geotechnical Report Details :

Report Title: RISK ANALYSIS AND MANAGEMENT FOR PROPOSED WASTEWATER SYSTEM AT 38 STURDEE LANE LOVETT BAY

Report Date: 1/06/2017

Author: PETER THOMPSON

Documentation which relates to or is relied upon in report preparation:

THE PROPOSED WORKS COMPRISE OF A NEW WASTEWATER SYSTEM FOR THE BLOCK AND REQUIRE NO STRUCTURAL ENGINEERING. (NO FORM 2A WILL BE REQUIRED)

Details of the proposed development are shown on an architectural drawing prepared by Stephen Crosby & Assoc. Dwg No: 2127 DA 01, dated March 2017 & wastewater report prepared by Blue Mountains Geological & Environmental Services, Ref No: 170407, dated April 2017.

THIS DESIGN IS CONSIDERED TO BE SUITABLE FOR THE BLOCK. PROVIDED THE RECCOMENDATIONS AND NECESSARY INSPECTIONS, AS OUTLINED IN OUR ORIGINAL GEOTECHNICAL REPORT ARE UNDERTAKEN THE WORKS ARE CONSIDERED TO ACHIEVE AND "ACCEPTABLE" LEVEL OF RISK AS OUTLINED IN THE COUNCIL GEOTECHNICAL POLICY.

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification 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.

Signature

Name PETER THOMPSON

Chartered Professional Status MIE Aust CPEng

Membership No. 146800

Company Jack Hodgson Consultants Pty. Ltd

Policy of Operations and Procedures

Council Policy – No 178

This plan / document
forms part of
Construction Certificate
no. 2017 / 5917

SPECIFICATION

for the installation of

New on-site wastewater treatment system to the existing dwelling

for

A Townsend

at

38 STURDEE LANE, LOVETT BAY, NSW

Stephen Crosby & Associates Pty. Ltd.

DATE: AUGUST 2017

This plan / document
forms part of
Construction Certificate
no. 2017 / 5917

1. PRELIMINARIES

JOB:

Specification for the upgrading of the existing on-site wastewater treatment and disposal system for the existing residence at;

No.38 Sturdee Lane, Lovett Bay NSW

Lot 6 DP 552628

For A. Townsend

GENERALLY:

The Builder shall comply with the Building Code of Australia and all Local Council rules and regulations applicable including Specific DA & CC conditions of this approval- refer appendix for DA conditions. The Builder shall give all notices, obtain all permits and pay all fees required by such authorities except as follows; Development Consent and Construction Certificate approval, LSL, Engineering Inspections and final survey.

The Builder shall pay all surveyors fees associated with the setout of the works.

The Proprietor shall pay cost of all Structural and Geotech Engineering details, inspections and certificates, On-Site wastewater Disposal inspections and certificates.

The contract shall be HIA Simple Building Works Contract, or other agreed contract.

NOTE: THIS SITE IS BUSHFIRE PRONE. AS3959-2009 does NOT apply as a DTS Provision. There are no specific bushfire requirements.

THE WORKS:

The works shall comprise the upgrading of the on-site wastewater disposal system. This shall include and new AWTS and trench, and new wastewater lines.

The works shall also include the conversion of the existing septic tank to a collection and pump-up tank.

DA CONSENT CONDITIONS:

This specification is to be read in conjunction with the DA No. N0231/17 Conditions of consent dated 14-July-2017.

DRAWINGS:

This specification is to be read in conjunction with the following drawings:

| | | |
|---------------------|--------------|--------------------|
| Architectural Plans | No.2127-DA01 | S. Crosby & Assoc. |
| Survey Drawing | Ref. 17-57 | Base Surveying |

REPORTS:

Risk Analysis & Risk Management Report Ref MS 31148
Wastewater Management Report dated April 2017
Vegetation Management Report dated June 2017
Bushfire Risk Assessment dated 7th June 2017

The builder is to provide Compliance Certificates required by Council/Certifier as shown on the DA Conditions of consent. The Proprietor, as required, will meet the net cost of certificates from the Geotech and/or Structural Engineer, Wastewater consultant and Arborist.

Risk Analysis & Management Report -MS 31148 prepared by Jack Hodgson Consultants forms part of this Specification. The requirements and recommendations of the report are to be met.

Wastewater Management Report -Ref 170407A prepared by Blue Mountains Geological Consultants forms part of this Specification. The requirements and recommendations of the report are to be met.

Tree Assessment and Management Plan prepared by Julia Stanton forms part of this Specification. The Tree and Vegetation Management and Protection recommendations are to be complied with. The proprietor shall meet the cost of arborist's certificates if required under DA conditions.

NOTE: THIS SITE IS IN A BUSHFIRE RISK AREA- THERE ARE NO SPECIAL BUSHFIRE CONSTRUCTION REQUIREMENTS FOR THESE WORKS

TEMPORARY SERVICES:

The Builder may use toilet facilities on site for the duration of the works. Power and water are available to the builder at cost. Builder's phone service is to be provided by the builder.

2. SITE PREPARATION

SET OUT:

Refer to survey drawing for the location of existing structures, services and other site features.

The builder is to set out from the survey drawing in accordance with the Architectural and Survey drawings.

SITE PROTECTION:

Refer DA Condition B7 requiring a sediment fence where shown on the Site Plan Dwg No.2127-DA 01.

Refer DA Condition C16 requiring a tree guard where shown on the Site Plan Dwg No.2127-DA 01.

SITE MANAGEMENT SIGNS:

A Builder's safety sign warning the public to keep out, and displaying the Builder's 24hr phone number, is to be fixed to the fence at the Fire trail and on waterfront. - Refer DA conditions

EXCAVATION: REFER DWG 2127-DA01

Excavate for new AWTs tanks (2 off) and sub-surface disposal trench.

3. SEWERAGE & DRAINAGE

EXISTING SEPTIC TANKS:

Decommission one of the two existing concrete septic tanks. Transfer the waste to the tank to be retained and install a polymer pump well with macerator into the tank.

AWTS:

Install new AWTS with two tanks where shown on Site Plan. Connect new sub-surface lines to existing and new trench all in accordance with recommendations of Effluent Management report ref 170407A prepared by Blue Mountains Geological and Environmental Services.

Refer to Site Plan No. 2093-DA01 for location of AWTS tanks and sub-surface trenches.

4. ELECTRICIAN

AWTS CIRCUIT: Provide separate circuit with indicator light. Connect to macerator pump in existing septic tank and to new AWTS.

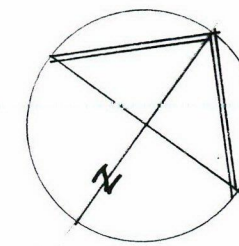
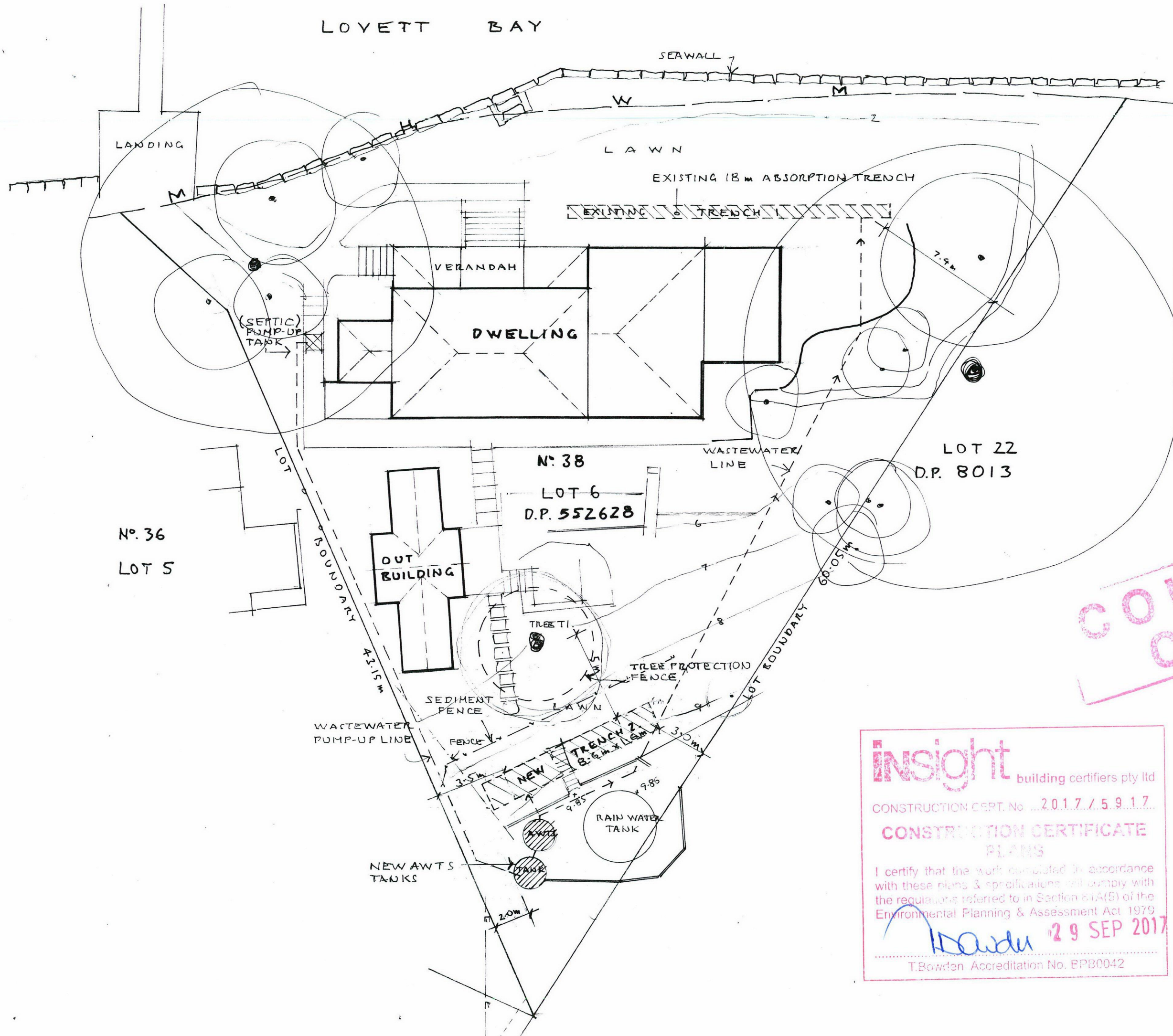
5. COMPLETION

The wastewater shall be completed to the extent here in specified, the site cleared of builder's waste, and generally left fit for occupation.

The builder shall furnish the Proprietor with:
All local authority certificates of compliance referred to in DA Conditions.

END

LOVETT BAY



NOTE: ALL RECOMMENDATIONS CONTAINED WITHIN GEOTECHNICAL REPORT REFERENCE NO. MS 31148 PREPARED BY JACK HODGSON CONSULTANTS PTY LTD DATED 1 JUNE 2017 TO BE INCORPORATED AND MAINTAINED OVER THE LIFE OF THE DEVELOPMENT.

NOTE: ALL RECOMMENDATIONS CONTAINED WITHIN WASTE WATER MANAGEMENT REPORT REFERENCE NO. 170407A PREPARED BY BLUE MOUNTAINS GEOTECHNICAL & ENVIRONMENTAL SERVICES PTY LTD DATED APRIL 2017 TO BE INCORPORATED AND MAINTAINED OVER THE LIFE OF THE DEVELOPMENT.

NOTE: TREE PROTECTION MEASURES ARE TO BE INSTALLED AND MAINTAINED DURING THE LIFE OF THE PROJECT IN ACCORDANCE WITH ARBORIST REPORT PREPARED BY SYNCARPIA VEGETATION MANAGEMENT DATED JUNE 2017 & CONDITIONS 16 (A-E) & 17 OF THE DEVELOPMENT CONSENT.

NOTE: ALL RECOMMENDATIONS CONTAINED WITHIN BUSHFIRE RISK ASSESSMENT REPORT REFERENCE NO. 1160 PREPARED BY PLANNING FOR BUSHFIRE PROTECTION DATED 6 JUNE 2017 TO BE INCORPORATED AND MAINTAINED OVER THE LIFE OF THE DEVELOPMENT.

NOTE: SEDIMENT & EROSION CONTROL MEASURES ARE TO BE INSTALLED AND MAINTAINED DURING THE LIFE OF THE PROJECT.

COUNCIL COPY

Stephen Crosby & Assoc.
Pty. Ltd.

SCOTLAND ISLAND
PO Box 204 Church Pt. NSW 2105
Tel 0409 047 513

**WASTEWATER
TREATMENT
SYSTEM UPGRADE**

**38 STURDEE LANE
LOVETT BAY, NSW
Lot 6 DP 552628**

SITE PLAN

Scale 1:200
Date MARCH 2017
Drawn S.C.
Drawing Number

2127 - DA 01

insight building certifiers pty ltd

CONSTRUCTION CERT. No. 2017/5917

**CONSTRUCTION CERTIFICATE
PLANS**

I certify that the work completed in accordance with these plans & specifications will comply with the regulations referred to in Section 81A(5) of the Environmental Planning & Assessment Act 1979

Handwritten signature 29 SEP 2017
T.Bowden Accreditation No. EPB0042