DEVELOPMENT APPLICATION

PDPLANPMTD-2026/061499

PROPOSAL: Secondary Residence

LOCATION: 109 Spitfarm Road, Opossum Bay

RELEVANT PLANNING SCHEME: Tasmanian Planning Scheme - Clarence

ADVERTISING EXPIRY DATE: 23/06/2026

The relevant plans and documents can be inspected at the Council offices, 38 Bligh Street, Rosny Park, during normal office hours until 23/06/2026. In addition to legislative requirements, plans and documents can also be viewed at www.ccc.tas.gov.au during these times.

Any person may make representations about the application to the Chief Executive Officer, by writing to PO Box 96, Rosny Park, 7018 or by electronic mail to clarence@ccc.tas.gov.au. Representations must be received by Council on or before 23/06/2026.

To enable Council to contact you if necessary, would you please also include a day time contact number in any correspondence you may forward.

Any personal information submitted is covered by Council's privacy policy, available at www.ccc.tas.gov.au or at the Council offices.

City of Clarence
38 Bligh St Rosny Park
PO Box 96
Rosny Park TAS, 7018

03 6217 9500
clarence@ccc.tas.gov.au
ccc.tas.gov.au

Planning Application

Use this form to obtain planning approval for the use and development of land, including change of use, subdividing land into smaller lots, lot consolidation, or signage.

Please refer to the Planning Application checklist on the following pages to determine what documentation must be submitted with your application.

Proposal: Ancilliary dwelling

Location: 109 Spitfarm Road, Opossum Bay

Personal Information Removed

Is the property on the Tasmanian Heritage Register? Yes ☐ No ☒

If yes, we recommend you discuss your proposal with Heritage Tasmania prior to lodgement as

City of Clarence

exemptions may apply which may save you time on your proposal.

If you had pre-application discussions with City of Clarence, please provide planner's name:
Linda Watson

Current use of site: Dwelling

Does the proposal involve land administered or owned by the Crown or Council? Yes ☐ No ■

Declaration

- I have read the Certificate of Title and Schedule of Easements for the land and am satisfied that this application is not prevented by any restrictions, easements or covenants.
- I authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation. I agree to arrange for the permission of the copyright owner of any part of this application to be obtained. I have arranged permission for Council's representatives to enter the land to assess this application
- I declare that, in accordance with Section 52 of the Land Use Planning and Approvals Act 1993, that I have notified the owner of the intention to make this application. Where the subject property is owned or controlled by Council or the Crown, their signed consent is attached.
- I declare that the information in this declaration is true and correct.

Acknowledgement

- I acknowledge that the documentation submitted in support of my application will become a public record held by Council and may be reproduced by Council in both electronic and hard copy format in order to facilitate the assessment process; for display purposes during public consultation; and to fulfil its statutory obligations. I further acknowledge that following determination of my application, Council will store documentation relating to my application in electronic format only.

Personal Information Removed

Planning Application checklist

Mandatory Documents
This information is required for the application to be valid. We are unable to proceed with an application without these documents.

- ☐ Details of the location of the proposed use or development.
- ☐ A copy of the current Certificate of Title, Sealed Plan, Plan or Diagram and Schedule of Easements and other restrictions for each parcel of land on which the use or development is proposed.
- ☐ Full description of the proposed use or development.
- ☐ Description of the proposed operation. May include where appropriate: staff/student/customer numbers; operating hours; truck movements; and loading/unloading requirements; waste generation and disposal; equipment used; pollution, including noise, fumes, smoke or vibration and mitigation/management measures.
- ☐ Declaration the owner has been notified if the applicant is not the owner.
- ☐ Crown or Council consent (if publically-owned land).
- ☐ Any reports, plans or other information required by the relevant zone or code.
- ☐ Fees prescribed by the City of Clarence.

Application fees (please phone 03 6217 9550 to determine what fees apply). An invoice will be emailed upon lodgement.

Additional Documents
In addition to the mandatory information required above, Council may, to enable it to consider an application, request further information it considers necessary to ensure that the proposed use or development will comply with any relevant standards and purpose statements in the zone, codes or specific area plan, applicable to the use or development.

- ☐ Site analysis and site plan, including where relevant:
  - Existing and proposed use(s) on site.
  - Boundaries and dimensions of the site.
  - Topography, including contours showing AHD levels and major site features.
  - Natural drainage lines, watercourses and wetlands on or adjacent to the site.
  - Soil type.
  - Vegetation types and distribution, and trees and vegetation to be removed.
  - Location and capacity of any existing services or easements on/to the site.
  - Existing pedestrian and vehicle access to the site.
  - Location of existing and proposed buildings on the site.
  - Location of existing adjoining properties, adjacent buildings and their uses.
  - Any natural hazards that may affect use or development on the site.
  - Proposed roads, driveways, car parking areas and footpaths within the site.
  - Any proposed open space, communal space, or facilities on the site.

- Main utility service connection points and easements.
- Proposed subdivision lot boundaries.

☐ Where it is proposed to erect buildings, detailed plans with dimensions at a scale of 1:100 or 1:200 showing:
- Internal layout of each building on the site.
- Private open space for each dwelling.
- External storage spaces.
- Car parking space location and layout.
- Major elevations of every building to be erected.
- Shadow diagrams of the proposed buildings and adjacent structures demonstrating the extent of shading of adjacent private open spaces and external windows of buildings on adjacent sites.
- Relationship of the elevations to natural ground level, showing any proposed cut or fill.
- Materials and colours to be used on rooves and external walls.

☐ Where it is proposed to erect buildings, a plan of the proposed landscaping showing:
- Planting concepts.
- Paving materials and drainage treatments and lighting for vehicle areas and footpaths.
- Plantings proposed for screening from adjacent sites or public places.

☐ Any additional reports, plans or other information required by the relevant zone or code.

This list is not comprehensive for all possible situations. If you require further information about what may be required as part of your application documentation, please contact City of Clarence Planning team on (03) 6217 9550.

RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
141046	65
EDITION	DATE OF ISSUE
5	29-Oct-2025

SEARCH DATE : 19-May-2026
SEARCH TIME : 10.39 am

DESCRIPTION OF LAND

City of CLARENCE
Lot 65 on Sealed Plan 141046
Derivation : Part of 3900 Acres Gtd to G H B Gellibrand
Prior CT 140144/1

SCHEDULE 1

N283980 TRANSFER to ROBERT HECTOR PESTRUCCI and SUSAN JANE SAUNDERS as tenants in common in equal shares Registered 29-Oct-2025 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP141046 COVENANTS in Schedule of Easements
SP141046 FENCING PROVISION in Schedule of Easements
SP141046 WATER SUPPLY RESTRICTION
SP141046 SEWERAGE AND/OR DRAINAGE RESTRICTION
SP127600 COVENANTS in Schedule of Easements
SP127600 FENCING PROVISION in Schedule of Easements
SP127600 WATER SUPPLY RESTRICTION
SP127600 SEWERAGE AND/OR DRAINAGE RESTRICTION
E432250 MORTGAGE to Funding Pty Ltd Registered 29-Oct-2025 at 12.01 pm

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

OWNER ABALGRAM PTY LTD & NEMARA PROPRIETARY LTD

FOLIO REFERENCE C.T.140144-1 & C.T.127993-1

GRANTEE Part of 3900 Acres Gtd. to George Henry Blake Gellibrand

PLAN OF SURVEY

BY SURVEYOR S. Roberts of PEACOCK, DARCEY & ANDERSON PTY LTD AUTHORISED SURVEYORS 127 BATHURST STREET, HOBART

LOCATION CITY OF CLARENCE

SCALE 1: 1500 LENGTHS IN METRES

REGISTERED NUMBER **S P141046**

APPROVED EFFECTIVE FROM - 3 MAY 2004

Alice Kawa
Recorder of Titles

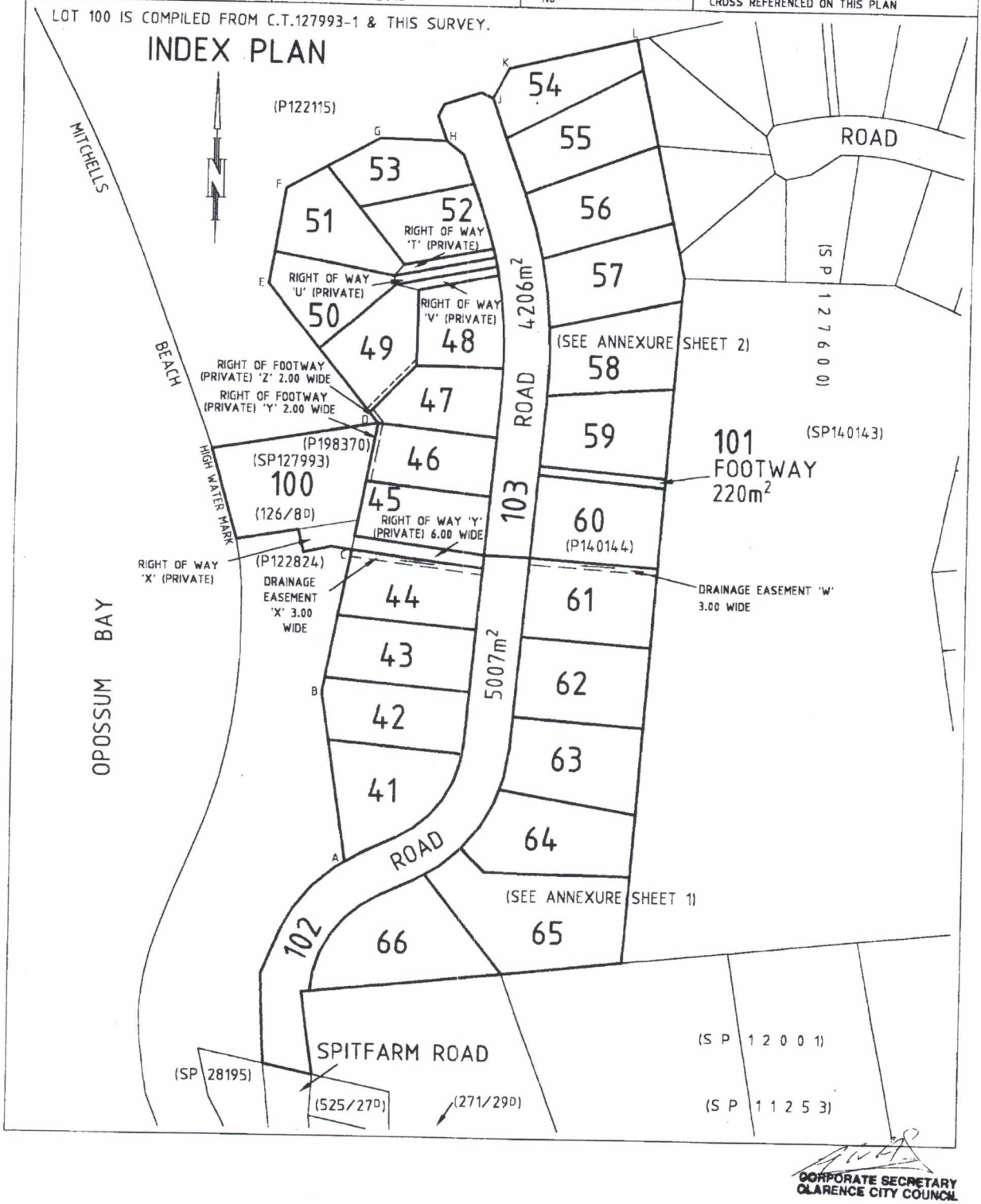
MAPSHEET MUNICIPAL CODE No (5224-44) 107

LAST UPI No 1400789 FLS16

LAST PLAN No P140144

ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

LOT 100 IS COMPILED FROM C.T.127993-1 & THIS SURVEY.



CORPORATE SECRETARY
CLARENCE CITY COUNCIL

PLAN OF SURVEY
ANNEXURE SHEET
SHEET 1 OF 2 SHEETS

OWNER ABALGRAM PTY LTD & NEMARA PROPRIETARY LTD

FOLIO REFERENCE C.T.140144-1 & C.T.127993-1

SCALE 1: 750 LENGTHS IN METRES

Registered Number

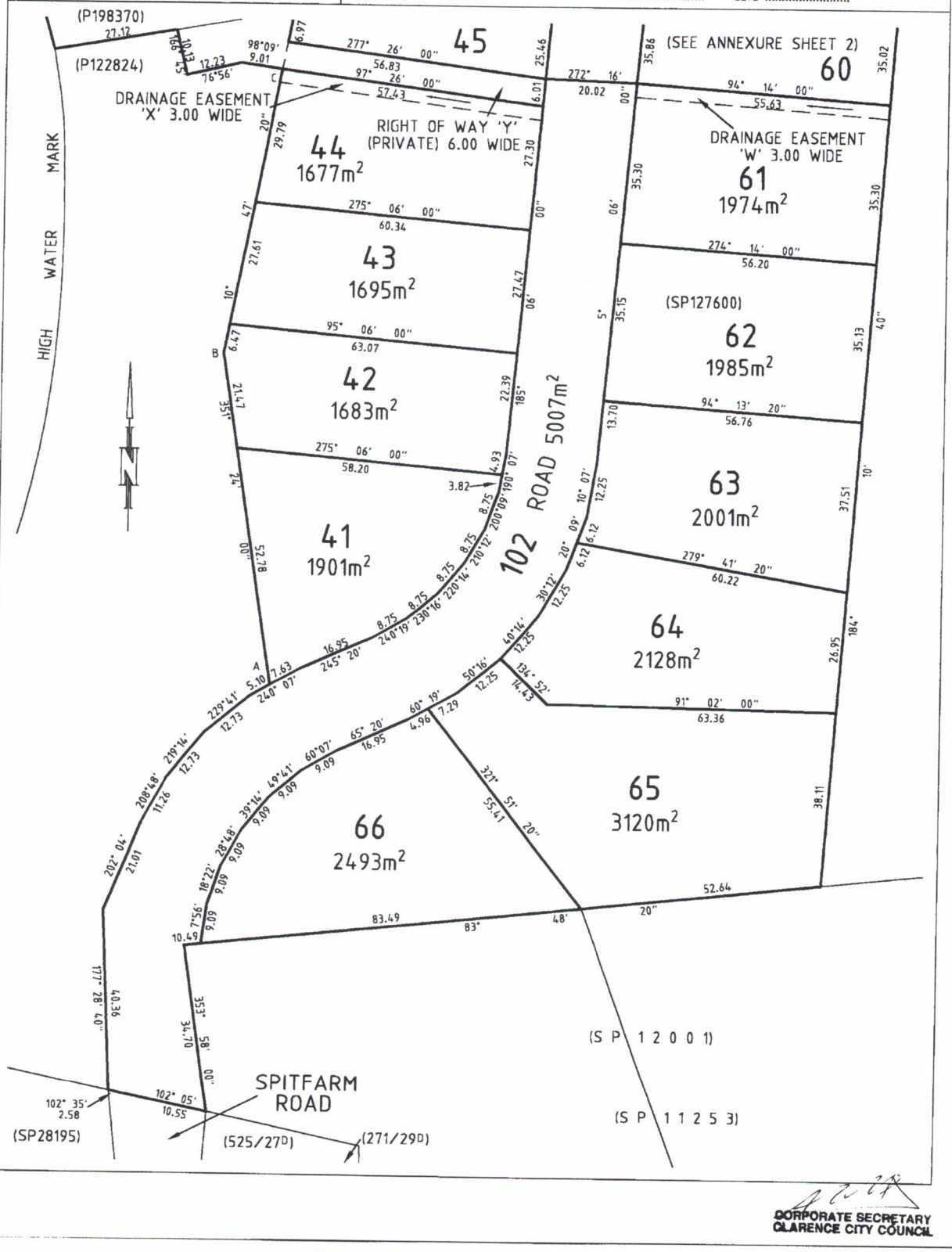
SP 141046

SIGNED FOR IDENTIFICATION PURPOSES

.....
Council General Manager

THIS ANNEXURE SHEET FORMS PART OF THE ATTACHED INDEX PLAN>
THE SURVEYORS CERTIFICATE EXTENDS TO THE DETAILS ON THIS SHEET>

Registered Surveyor ..... date 4-2-2004



CORPORATE SECRETARY
CLARENCE CITY COUNCIL

PLAN OF SURVEY
ANNEXURE SHEET
SHEET 2 OF 2 SHEETS

OWNER ABALGRAM PTY LTD & NEMARA PROPRIETARY LTD

FOLIO REFERENCE C.T.140144-1 & C.T.127993-1

SCALE 1: 750 LENGTHS IN METRES

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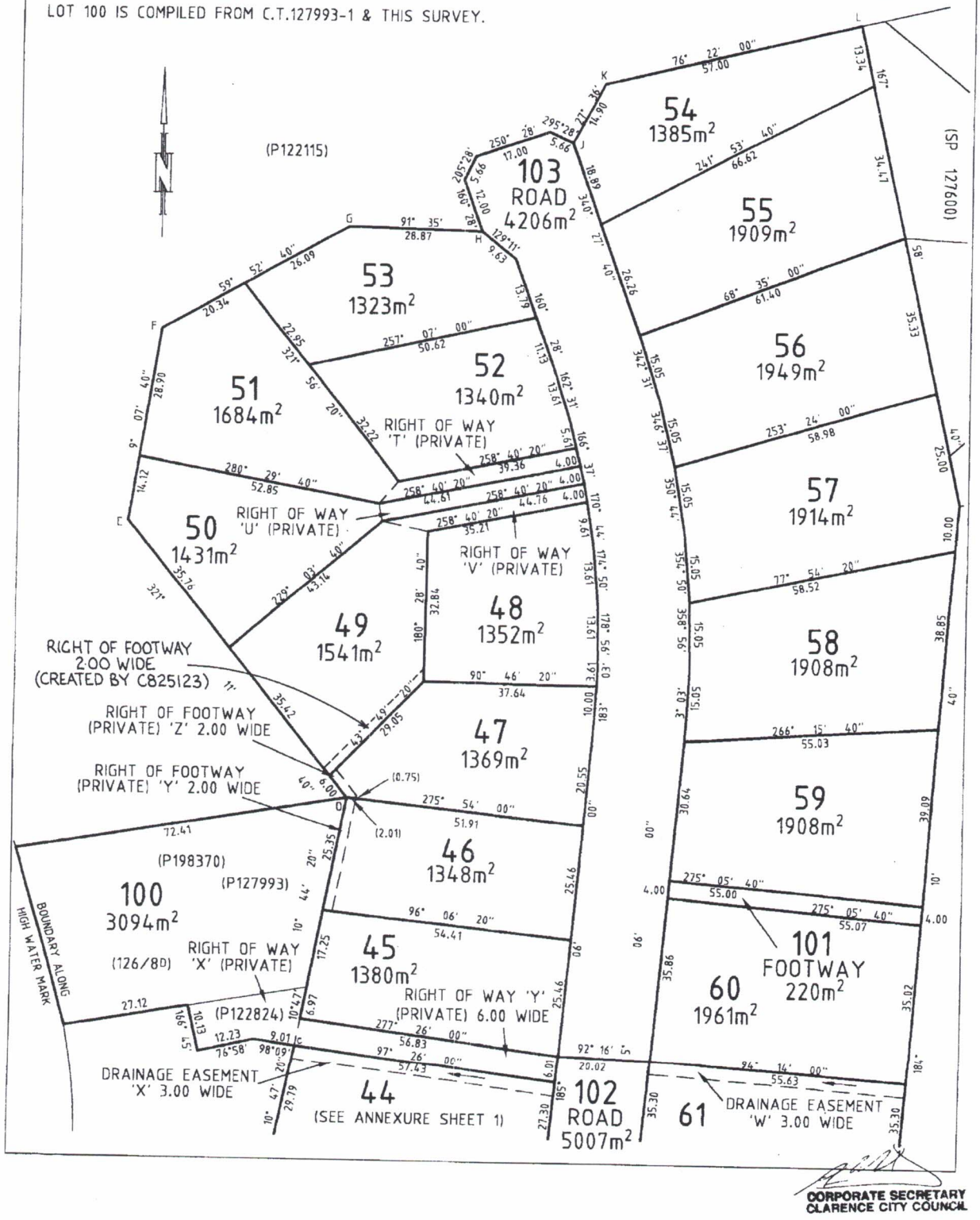
LOT 100 IS COMPILED FROM C.T.127993-1 & THIS SURVEY.



CORPORATE SECRETARY
CLARENCE CITY COUNCIL

SCHEDULE OF EASEMENTS NOTE: THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED.	Registered Number SP 141046

EASEMENTS AND PROFITS

Each lot on the plan is together with:-
(1) such rights of drainage over the drainage easements shown on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and
(2) any easements or profits a prendre described hereunder.
Each lot on the plan is subject to:-
(1) such rights of drainage over the drainage easements shown on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and
(2) any easements or profits a prendre described hereunder.
The direction of the flow of water through the drainage easements shown on the plan is indicated by arrows.

Lot 44 on the plan is:- Subject to a right of drainage for the Clarence City Council over the drainage easement 3.00 wide marked "X" on the plan within such lot.

~~**Lot 45 on the plan is:- Together with a right of footway over the Rights of Footway (Private) 2.00 wide marked "Y"** and "Z" on the plan.~~

Lot 46 on the plan is:- Together with a right of footway over the Right of Footway (Private) 2.00 wide marked "Z" on the plan.
Subject to a right of footway (appurtenant to lot 45 on the plan) over the Right of Footway (Private) marked "Y" on the plan within such lot.

Lot 47 on the plan is:- Subject to a right of footway (appurtenant to lots 45 and 46 on the plan) over the Right of Footway (Private) marked "Z" on the plan within such lot.

Lot 49 on the plan is:- Together with a right of way 'U' (Private) over lot 50 and a right of way 'T' (Private) over lot 51 as shown on the plan.
Subject to a right of way 'V' (Private) in favour of lots 50 and 51 on the plan.

Lot 50 on the plan is:- Together with a right of way 'T' (Private) over lot 51 and a right of way 'X' (Private) over lot 49 as shown on the plan.
Subject to a right of way 'U' (Private) in favour of lots 49 and 51 on the plan.

Lot 51 on the plan is:- Together with a right of way 'U' (Private) over lot 50 and a right of way 'V' (Private) over lot 49 as shown on the plan.
~~Subject to a right of way 'T' (Private) in favour of lots 49 and 50 on the plan.~~

Lot 61 on the plan is:- Subject to a right of drainage for the Clarence City Council over the drainage easement 3.00 wide marked "W" on the plan within such lot.

~~That part of lot 100 on the plan which formerly comprised lot 1 on Plan No. 127903 is:-
Together with a right of carriageway over the Rights of Way (Private) marked "X" and "Y" on the plan.~~

(USE ANNEXURE PAGES FOR CONTINUATION)

SUBDIVIDER: ABALGRAM PTY LTD AND NEMARA PTY. LTD. FOLIO REF: 140144/1 & 127993/1 SOLICITOR & REFERENCE: PAGE SEAGER (ARO: 03-1923)	PLAN SEALED BY: CLARENCE CITY COUNCIL DATE: 18 March 2004 SD 1995/3000 REF NO. Council Delegate

NOTE: The Council Delegate must sign the Certificate for the purposes of identification.

ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 2 OF 4 PAGES	Registered Number SP 141046
SUBDIVIDER: ABALGRAM PTY LTD FOLIO REFERENCE: 140144/1 & 127993/1	

~~That part of lot 100 on the plan which formerly comprised part of lot 1 on Plan No. 140144 is:-~~
Subject to a right of carriageway (~~appurtenant to lot 1 on Plan No. 127993~~) over the Rights of Way (Private) marked ~~"X" and "Y" on the plan within such lot~~.

EASEMENTS CONTINUED ON PAGE 4.

COVENANTS:-
The owner of each lot shown on the plan (except that part of lot 100 which formerly formed lot 1 on Plan No. 127993) covenants with the Vendor (ABALGRAM PTY LTD) and with the owner for the time being of every other lot shown on the plan to the intent that the burden of this covenant may run with and bind the covenantor's lot and every part thereof and that the benefit thereof shall be annexed to and devolve with each and every part of every other lot shown on the plan to observe the following stipulations:-

1. Not to construct, erect or place on such lot any building greater in height than one storey.

2. Not to construct, erect or place on such lot any dwelling or residence (excluding outbuildings) of a less size than 170 square metres.

3. Not to construct, erect or place on such lot any dwelling or residence with a pitched roof but only a flat roof design which may be of various angles or slopes.

4. Not to construct the roof of any dwelling or residence on such lot of any material other than Colorbond or other non reflective material.

5. Not to construct, erect or place on such lot any dwelling or residence having exposed brick walls or being roofed with roofing tiles.

6. Not ~~to have the~~ TO CONSTRUCT exposed outside walls of any dwelling or residence on such lot ~~to be~~ WITH ANY MATERIAL other than Rendered, Granesite, Bagged Brick, Timber, Sandstone or current modern architectural materials including Colorbond.

7. Not to construct, erect or place on such lot any dwelling or residence with a height greater than 4.5 metres above natural highest ground level of such lot.

8. Not to construct any fence on such lot apart from a ~~picket~~ timber or rendered brick fence not exceeding ~~one~~ 1.25 metre in height ~~or a hedge planting of a type which would normally not exceed one metre in height~~.

9. Not to use in landscaping such lot any tree, bush or shrub apart from Australian native trees, bushes or shrubs.

10. Not (as relates to lots 41 to 44, 47, 49 to 51, 53 and 54 on the plan) to build, erect or place any paling fence on or near the boundary of such lot within the points on the respective boundary marked "ABC", "DEFGH" and "JKL" respectively on the plan.

NOTE: Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 3 OF 4 PAGES	Registered Number SP 141046
SUBDIVIDER: ABALGRAM PTY LTD FOLIO REFERENCE: 140144/1 & 127993/1	

The lots on the plan (except that part of lot 100 which formerly formed lot 1 on Plan No. 127993) are affected by covenants more fully set forth in Sealed Plan No. 127600.

FENCING PROVISION:-
In respect of the lots shown on the plan (except that part of lot 100 which formerly comprised lot 1 on Plan No. 127993) the Vendor (ABALGRAM PTY LTD) shall not be required to fence.

THE COMMON SEAL of **ABALGRAM PTY LTD (ACN 002 573 060)** being the registered proprietor of the land in the Folio of the Register Volume 140144 Folio 1 as hereunto affixed in the presence of:

.....
Director

.....
Director/Secretary

ABALGRAM PTY LTD A.C.N. 002 573 060 Common Seal

EXECUTED by
~~THE COMMON SEAL of~~ **NEMARA PROPRIETARY LTD (ACN 067 603 285)** being the registered proprietor of the land in the Folio of the Register Volume 127993 Folio 1 ~~as hereunto affixed in the presence of:~~ Pursuant to Section 127(1) of the Corporations Act.

.....
Sole Director (William Alston)

NATIONAL AUSTRALIA BANK as mortgagee hereby consents to the within dealing.

Executed by the NATIONAL AUSTRALIA BANK LIMITED its Attorney Yves Schlabach under Power of Attorney No. 711 5033 (who states that he holds the office in the NATIONAL AUSTRALIA BANK LIMITED indicated under his signature and who declares that he has received no Notice of revocation of the said Power) in the presence

YVES SCHLABACH
RELATIONSHIP MANAGER

Ryan Maddox
Business Banking Officer Level 10 86 Collins Street HOBART.

NOTE: Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 4 OF 4 PAGES	Registered Number SP 141046

SUBDIVIDER: - ABALGRAM PTY LTD and NEMARA PTY LTD

FOLIO REFERENCE: - 140144/1 and 127993/1

EASEMENTS (continued)

Lot 45 on the plan is together with a right of footway over the Rights of Footway (Private) 2.00 wide marked 'Y' and 'Z' shown passing through Lots 46 and 47 on the plan respectively.

Lot 46 on the plan is together with a right of footway over the Right of Footway (Private) 2.00 wide marked 'Z' shown passing through Lot 47 on the plan.

Lot 46 on the plan is subject to a right of footway (appurtenant to Lot 45 on the plan) over the Right of Footway (Private) 2.00 wide marked 'Y' within such lot.

Lot 47 on the plan is subject to a right of footway (appurtenant to Lots 45 and 46 on the plan) over the Right of Footway (Private) 2.00 wide marked 'Z' shown within such lot.

Lot 49 on the plan is together with a right of carriageway over the Rights of Way (Private) marked 'U' and 'T' shown within Lots 50 and 51 on the plan respectively.

Lot 49 on the plan is subject to a right of carriageway (appurtenant to Lots 50 and 51 on the plan) over the Right of Way (Private) marked 'V' shown within such lot.

Lot 50 on the plan is together with a right of carriageway over the Rights of Way (Private) marked 'V' and 'T' shown within Lots 49 and 51 on the plan respectively.

Lot 50 on the plan is subject to a right of carriageway (appurtenant to Lots 49 and 51 on the plan) over the Right of Way (Private) marked 'U' shown within such lot.

Lot 51 on the plan is together with a right of carriageway over the Rights of Way (Private) marked 'V' and 'U' shown within Lots 49 and 50 on the plan respectively.

Lot 51 on the plan is subject to a right of carriageway (appurtenant to Lots 49 and 50 on the plan) over the Right of Way (Private) marked 'T' shown within such lot.

Lot 100 on the plan is subject to a right of carriageway (appurtenant to Lot 1 on Plan 198370) over the Rights of Way (Private) marked 'X' and 'Y' shown within such lot.

NOTE: - Every annexed sheet must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

GENERAL NOTES

1. All work to comply with relevant SAA codes and NCC 2022 Volume Two and ABCB Housing Provisions Standard .
2. Codes: Concrete AS2870:2011, Masonry AS3700:2018, Plumbing AS/NZS3500:2018 Timber Frame AS1684.2:2021, Windows AS2047:2014,Glazing AS1288, Roofing AS1562:2018 Steelwork AS1250, AS4100:2020, Electrical AS3000:2018. NB- "All referenced documents including legislation, codes, Australian Standards, guidelines and codes of practice are the version current at the time of the project documentation approval, unless noted otherwise" as noted at **Schedule 9 Tasmania TAS Footnote: Other legislation affecting buildings** of NCC 2022 Volume Two and ABCB Housing Provisions Standard
3. Wet Areas as defined by Part 10.2 of NCC 2022 Volume Two and ABCB Housing Provisions Standard, shall comply with that part and AS3740 with approved flashing's and sealants to all junctions and around fittings.
4. Wall lintels:- F17 sizes shown. Other Grades to AS1684.2 may be used. SIZES FOR SPANS- SEE NOTES ON WALL BRACING PLAN.

5. Wall Bracing:- To AS1684.2:2021 See Table 8.18 (d) & (h)
SEE NOTES ON WALL BRACING PLANS

6. Energy Efficiency Notes
REQUIRED INSULATION (MIN TOTAL R-VALUE INCLUDING FLOOR, WALL, ROOF AND CEILING CONSTRUCTION)
R VALUES FOR CEILINGS/ROOFS, WALLS AND FLOORS SHALL BE AS INDICATED AS NOTED ON THE FLOOR PLAN

HOT WATER PIPES to AS3500:2018 with 25mm CLOSED CELL POLYMER, R1.3 INSULATION TO EXTERNAL LOCATIONS & 13mm CLOSED CELL POLYMER R0.6 INSULATION TO INTERNAL LOCATIONS.
All external openings shall be sealed to minimize air leakage. Seals to be either foam or rubber compressible strips, fibrous seals or the like and comply with Part 13.4.4 of NCC 2022 Volume Two and ABCB Housing Provisions Standard
Any Mechanical ventilators shall be installed with an approved sealing device complying with **Part 13.4.5 of NCC 2022 Volume Two and ABCB Housing Provisions Standard**

WATERPROOFING WET AREAS
WATERPROOFING OF WET AREAS TO AS 3740:2021. AND PART 10.2 OF ABCB Housing Provisions Standard 2022 of NCC2022
WATERPROOFING REQUIREMENTS:
THE ENTIRE WATER-RESISTANT WALL LINING IN A SHOWER AREA TO A MINIMUM HEIGHT OF EITHER 1800mm ABOVE THE FINISHED FLOOR LEVEL OR 50mm ABOVE THE SHOWER ROSE, WHICHEVER IS HIGHER.
FOR AREAS OUTSIDE SHOWER AREA (1)FOR CONCRETE, COMPRESSED FIBRE-CEMENT AND FIBRE-CEMENT SHEET FLOORING, THE FLOOR OF THE ROOM MUST BE WATER RESISTANT. (2) FOR TIMBER FLOORS INCLUDING PARTICLEBOARD, PLYWOOD AND OTHER TIMBER BASED FLOORING MATERIALS, THE FLOOR OF THE ROOM MUST BE WATERPROOF. ALL OTHER AREAS SEE PARTS 10.2.4 & PART 10.2.5.
(3) WALL/FLOOR JUNCTIONS MUST BE—
(a) WATERPROOF; AND
(b) WHERE A FLASHING IS USED, THE HORIZONTAL LEG MUST BE NOT LESS THAN 40 MM.
FORM FALL TO ALL WASTES- min 1:80 to max 1:50 TO COMPLY WITH PART 10.2.12.
PROVIDE WATERSTOP AT THRESHOLD OF SHOWER TO COMPLY WITH PART 10.2.17 FOR ENCLOSED SHOWERS AND PART 10.2.18 FOR UNENCLOSED SHOWERS

Standard
General: To AS 3740:2021.
Membrane: To AS/NZS 4858.
Extent: To Part 10.2 of NCC 2022 Volume Two and ABCB Housing Provisions Standard
Compatibility of Materials
The waterproofer is to ensure component to component compatibility.
Membrane
Provide a proprietary (non acrylic) liquid applied or sheet membrane system for use in wet areas, shower recess bases and associated floors and wall to floor junctions which are to be tiled.
Proprietary Item: Bostik Dampfix Immersed 2 Part System. (OR EQUIVALENT)
Bond breakers materials
Requirement: Compatible with the flexibility class of the membrane to be used.
Material: Purpose made bond breakers tapes and closed cell foam backing rods or fillets of sealant.
Bond breakers installation
Requirement: After the priming of surfaces, provide bond breakers at all wall/floor, hob/wall junctions and at control joints where the membrane is bonded to the substrate.
Sealant fillet bond breakers:
- Application: Form a triangular fillet or cove of sealant to internal corners within the period recommended by the membrane manufacturer after the application of the primer.
- Widths: 8 mm minimum to vertical corners. 10 – 12 mm to horizontal corners.
Backing rod bond breakers: Retain in position with continuous length of tape pressed firmly in place against the surfaces on each side of the rod.
Sealants
Requirement: Waterproof, flexible, mould-resistant and compatible with host materials.
Preparation
General: Ensure substrates are as follows:
• Clean and free of any deposit or finish which may impair adhesion or location of tiles.
• If walls are plastered, remove loose sand.
• Compatible with all components of the floor system.
• If framed or discontinuous, support members are in full lengths, without splicing.
• If solid or continuous;
• Excessive projections are removed.
• Voids and hollows > 10 mm are filled with a cement/sand mix not stronger than the substrate nor weaker than the bedding.
• Depressions < 10 mm are filled with a latex modified cementitious product with feathering eliminated by scabbling the edges.
• Fill cracks in substrates wider than 1.5 mm with a filler compatible with the membrane system.
External corners: Round or arris edges.
Absorbent substrates: If suction is excessive, control it by dampening but avoid over-wetting and do not apply mortar bedding to substrates showing surface moisture.
Dense concrete: If not sufficiently rough to provide a mechanical key, roughen by scabbling or the like to remove 3 mm of the surface and expose the aggregate; then apply a bonding treatment.
Installation
Floor wastes: Turn membrane down into the floor waste drainage flanges, and adhere to form a waterproof connection.
Hobs: Extend membrane over the hob and into the room at least 50 mm. For unenclosed showers extend membrane at least 1500 mm into the room measured from a point directly below the shower rose outlet on the wall.
External tiling: Provide a waterproof membrane under external floor tiling, to balconies and over habitable rooms, which forms a drained tank suitable for continuous immersion. Do not run under bounding walls.
Curing: Allow membrane to cure fully before tiling.

BATH ROOM NOTE:
THE DOOR THRESHOLD SHALL BE FITTED WITH AN APPROVED BRASS OR ALUMINIUM ANGLE WATER STOP
AT LEAST ONE SHOWER ON A GROUND FLOOR MUST HAVE A HOBLESS AND STEP FREE ENTRY. A LIP NOT MORE THAN 5 MM IN HEIGHT MAY BE PROVIDED FOR WATER RETENTION PURPOSES. UNENCLOSED SHOWERS MUST BE CONSTRUCTED AS FOLLOWS:
A waterstop must be installed a minimum horizontal distance of 1500 mm from the shower rose.
The vertical leg of the waterstop must finish—
(a) flush with the top surface of the floor and
(ii) where the waterstop intersects with a wall or is joined—
(A) the junction must be waterproof, OR
(B) the whole wet area floor must be waterproofed and drained to a floor waste as for the shower area
WET AREA FLOOR FALLS: WHERE A FLOOR WASTE IS INSTALLED- MINIMUM CONTINUOUS FALL MUST BE 1:80 AND MAXIMUM CONTINUOUS FALL MUST BE 1:50
ALL WALLS IN THE BATHROOM SHALL BE INSTALLED WITH MIN 12mm THICK STRUCTURAL GRADE PLYWOOD OR SIMILAR TO PROVIDE A FIXING SURFACE ABLE TO SUPPORT THE *FUTURE* INSTALLATION OF GRAB RAILS, IF NEEDED, TO COMPLY WITH PART 6 OF LIVABLE HOUSING DESIGN STANDARD 2022
NO TIMBER SKIRTING SHALL BE INSTALLED IN WASH ROOM

Project Details

Site Area:	3120m²
Floor Areas:	365.68m² buildings 43.20m² Containers
Site Cover:	408.88/3120 =13.10%
Climate Zone:	**7**
Wind Classification:	**N3**
Soil Classification:	**Class A**
Title Reference:	**141046/65**

SHEET KEY

Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

Revisions: 15May26
STORMWATER AND SEWER DRAINAGE FOR ANCILIARY DWELLING CHANGED TO MATCH DESIGN BY GEO-ENVIRONMENTAL SOLUTIONS

C L C A P P L I C A T I O N

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Building Design
custom building design
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Accreditation Number CC645J

Client:
R Pestrucci

Proposed: Ancillary Dwelling

At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Drawn :RV
Date: October 2025 ©
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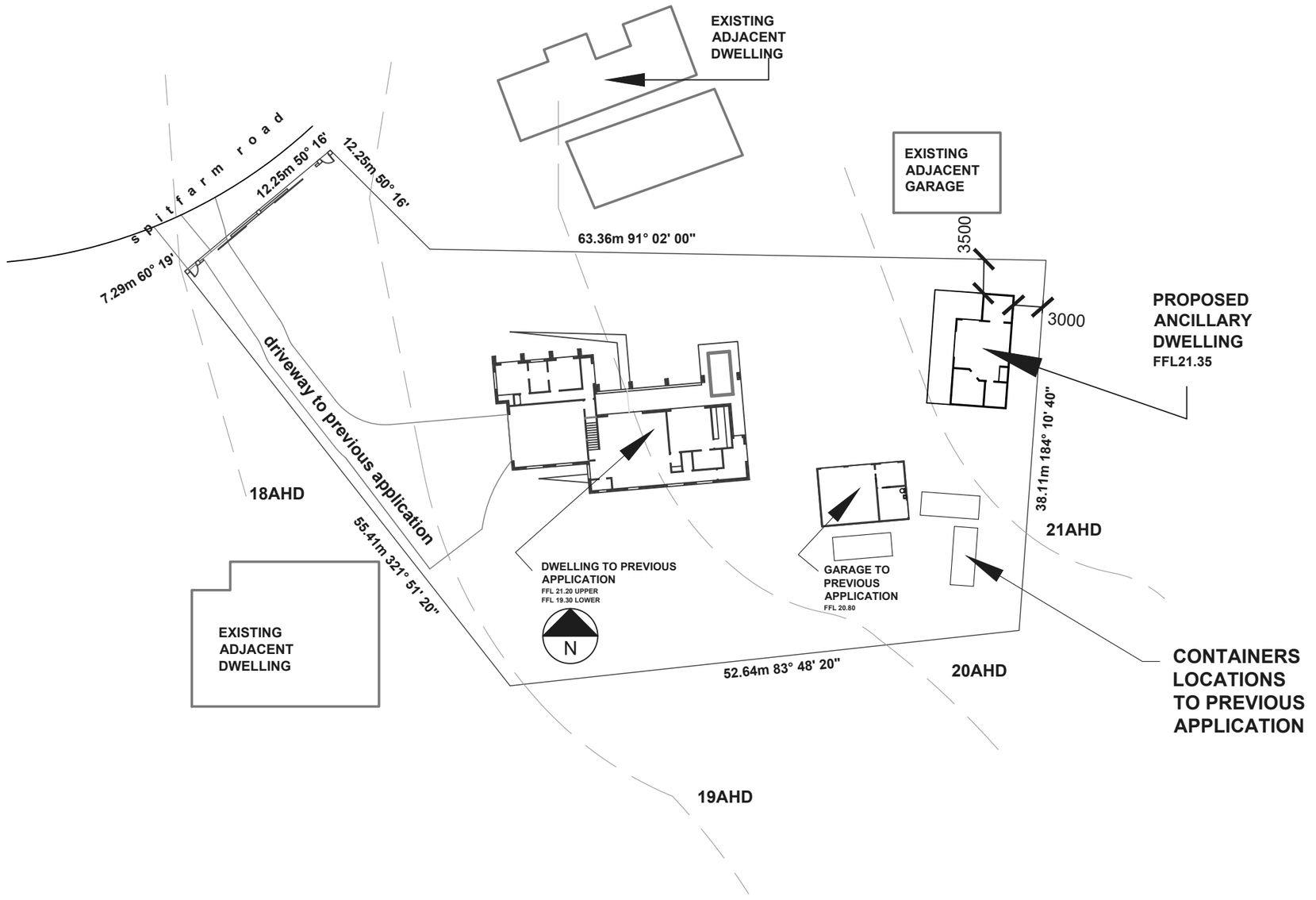
Revisions:

Sheet : 1 of 15

C O V E R S H E E T

DO NOT SCALE THE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE
BUILDER TO BUILD FROM COUNCIL APPROVED PLANS ONLY



LOCATION SITE PLAN
SCALE 1:500

SEE 1:250 PLAN FOR SETBACK & OTHER SITE DETAILS

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Sheet : 2 of 15

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SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

DO NOT SCALE THE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE
BUILDER TO BUILD FROM COUNCIL APPROVED PLANS ONLY

18AHD

s p i t f a r m r o a d

19AHD

12.25m 50° 16'

1200 high rendered twin brick wall
TO PREVIOUS APPLICATION

12.25m 50° 16'

20AHD

21AHD

PRE-FABRICATED AUTO
GATE TO PREVIOUS
APPLICATION

7.29m 60° 19'

63.36m 91° 02' 00"

PROPOSED
ANCILLARY
DWELLING
FFL21.35

3500

3000

3000

driveway to previous application

garage
2 car spaces

DWELLING TO PREVIOUS
APPLICATION
FFL 21.20 UPPER
FFL 19.30 LOWER

+/-21200

+/-7400

55.41m 321° 51' 20"

18AHD

GARAGE TO
PREVIOUS
APPLICATION
FFL 20.80

38.11m 184° 10' 40"

21AHD

CAR SPACE FOR
ANCILLARY DWELLING
MIN 2.4m X 5.4m

CONTAINERS
LOCATIONS
TO PREVIOUS
APPLICATION

N

FINAL SHAPING OF THE
DRIVEWAY TO THE
OWNER'S DIRECTION

20AHD

52.64m 83° 48' 20"

19AHD

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PART SITE PLAN
SCALE 1:250
PROPOSED DEVELOPMENT

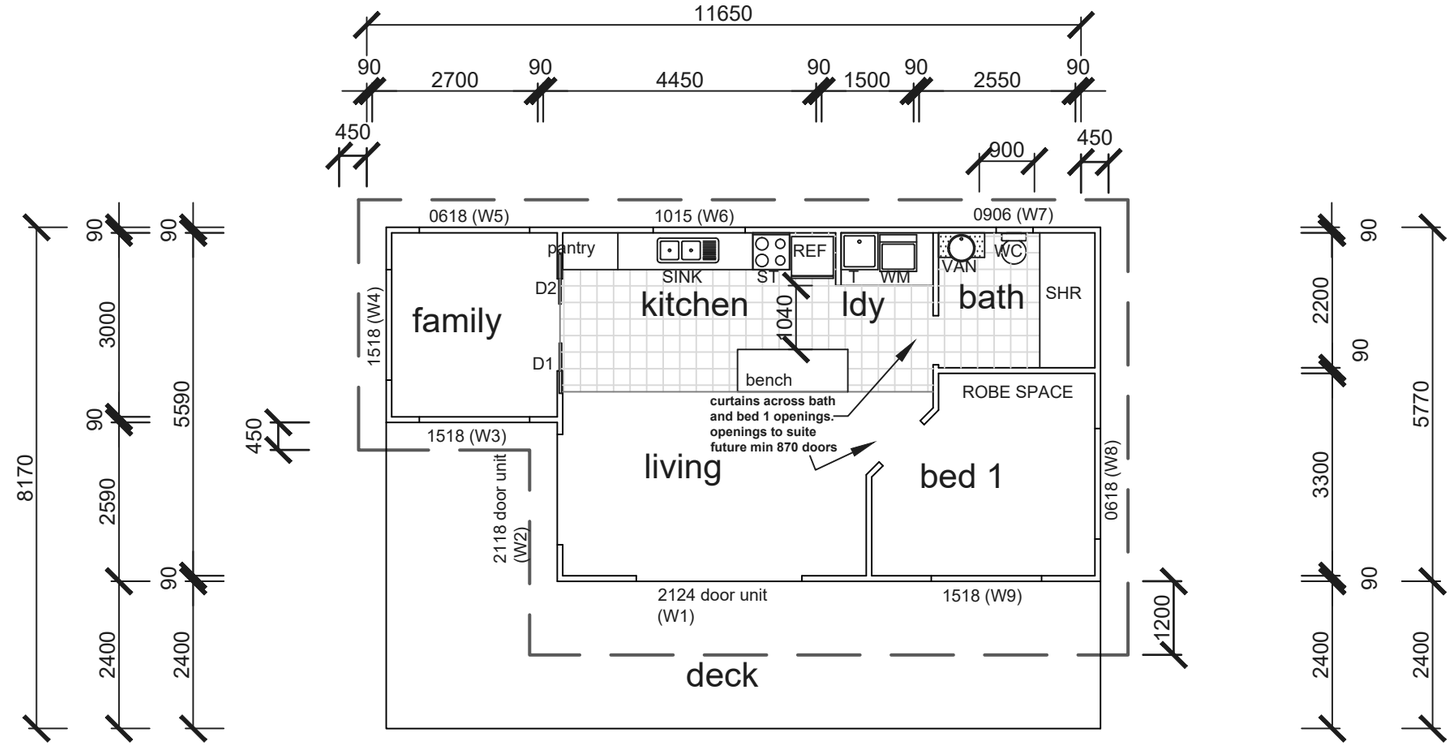
Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS
MAIN DWELLING APPROVED APPLICATION

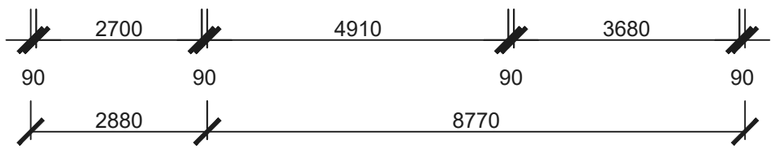
BATH ROOM NOTE:
THE DOOR THRESHOLD SHALL BE FITTED WITH AN APPROVED BRASS OR ALUMINIUM ANGLE WATER STOP AT LEAST ONE SHOWER ON A GROUND FLOOR MUST HAVE A HOBLESS AND STEP FREE ENTRY. A LIP NOT MORE THAN 5 MM IN HEIGHT MAY BE PROVIDED FOR WATER RETENTION PURPOSES. UNENCLOSED SHOWERS MUST BE CONSTRUCTED AS FOLLOWS:
A waterstop must be installed a minimum horizontal distance of 1500 mm from the shower rose.
The vertical leg of the waterstop must finish—
(a) flush with the top surface of the floor and
(ii) where the waterstop intersects with a wall or is joined—
(A) the junction must be waterproof, OR
(B) the whole wet area floor must be waterproofed and drained to a floor waste as for the shower area
WET AREA FLOOR FALLS: WHERE A FLOOR WASTE IS INSTALLED- MINIMUM CONTINUOUS FALL MUST BE 1:80 AND MAXIMUM CONTINUOUS FALL MUST BE 1:50
ALL WALLS IN THE BATHROOM SHALL BE INSTALLED WITH MIN 12mm THICK STRUCTURAL GRADE PLYWOOD OR SIMILAR TO PROVIDE A FIXING SURFACE ABLE TO SUPPORT THE *FUTURE* INSTALLATION OF GRAB RAILS, IF NEEDED, TO COMPLY WITH PART 6 OF LIVABLE HOUSING DESIGN STANDARD 2022
NO TIMBER SKIRTING SHALL BE INSTALLED IN WASH ROOM

WINDOW SCHEDULE				
CODE	ROOM	SIZE	FRAME	GLASS TYPE
W1	living	2124	AL stacker Doors	DG
W2	living	2118	AL sliding door	DG
W3	family	1518	AL awning	DG
W4	family	1518	AL awning	DG
W5	family	0618	AL sliding	DG
D6	kitchen	1015	AL awning	DG
W7	bath	0906	AL awning	DG
W8	bed 1	0618	AL sliding	DG
W9	bed 1	1518	AL awning	DG

DG= 5CLEAR TOUGHENED/ 11/ 4CLEAR DOUBLE GLAZED WINDOWS
AND
6 CLEAR TOUGHENED/ 11 / 5 CLEAR DOUBLE GLAZED DOOR UNITS

DOOR SCHEDULE		
CODE	SIZE	FRAME
D1	820	timber internal cavity sliding
D2	820	timber internal cavity sliding





FLOOR PLAN
SCALE 1:100
Area= 60.00m² dwelling
+35.18m²deck

INSULATION-
R4.0 CEILING
R2.5 WALLS
R2.5 SUSPENDED TIMBER FLOORS
R1.5 INSULATION UNDER SLAB

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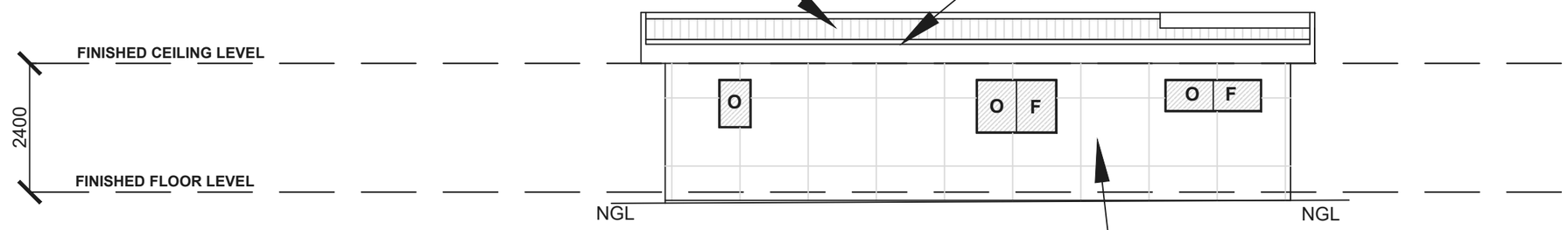
Sheet : 4 of 15

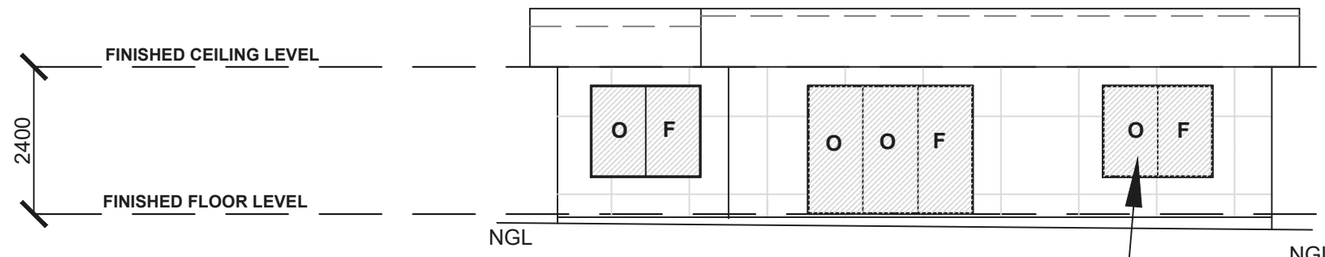
COLORBOND METAL ROOF SHEETING TO SUIT **3º ROOF PITCH such as MONOCLAD METAL SHEETING BEHIND PARAPET (COLOR- SURF MIST)** WITH **VAPOR PERMIABLE SARKING** TO AS/NZ 4200.2 & CONDENSATION-IN-BUILDINGS TASMANIAN DESIGNERS GUIDE-VERSION 2 **INSTALLED TO AS1562:2006 PART 3.5.1 OF ABCB Housing Provisions Standard 2022 OF NCC2022.** AND THE MANUFACTURER'S DETAILS WITH FIXINGS EVERY RIB. 38 X 75 F8 OR SIMILAR ROOF BATTENS @900cts.
ROOF PITCH = 3º

NOM D115 GUTTERING TO 100 X 50 DOWNPIPES CONNECTED TO D100SWP TO EXISTING CONNECTION POINT. GUTTERING TO BE INSTALLED WITH AN ACCEPTABLE CONTINUOUS OVERFLOW MEASURE TO COMPLY WITH PART 7.4.6 OF ABCB Housing Provisions Standard 2022 OF NCC2022 DOWNPIPES MUST NOT SERVE GREATER THAN 12m GUTTER LENGTH TO COMPLY WITH PART 7.4.5 OF ABCB Housing Provisions Standard 2022 OF NCC2022



E V I E W
ANCILLARY DWELLING
S C A L E 1 : 1 0 0

JH MATRIX WALL PANELS OR SIMILAR INSTALLED TO PART 7.5.3 OF ABCB Housing Provisions Standard 2022 OF NCC 2022 AND STRICTLY TO THE MANUFACTURER'S DETAILS AND SPECIFICATIONS.



W V I E W
ANCILLARY DWELLING
S C A L E 1 : 1 0 0

ALUMINIUM FRAMED WINDOWS AND DOORS TO AS1288:2021 AND AS2047:2014. (COLOR- SEA MIST). INSTALLATION TO PART 8.2 and GLASS TO PART 8.3 OF ABCB Housing Provisions Standard 2022 OF NCC2022. AND STRICTLY TO THE MANUFACTURER'S DETAILS AND SPECIFICATIONS

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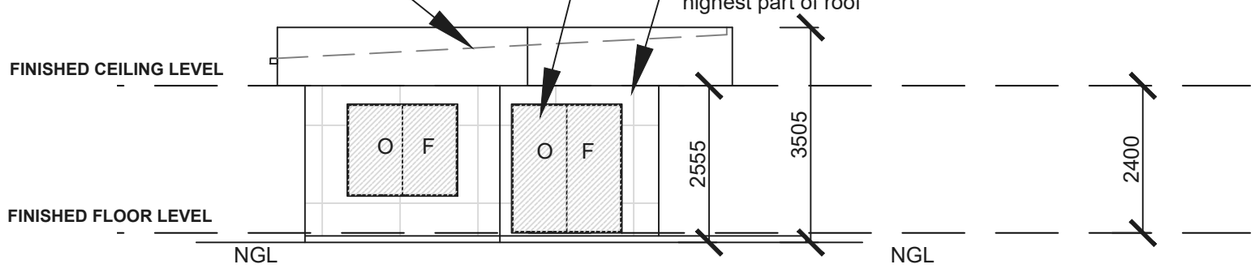
COLORBOND METAL ROOF SHEETING TO SUIT **3º ROOF PITCH such as MONOCLAD METAL SHEETING BEHIND PARAPET (COLOR- SURF MIST)** WITH **VAPOR PERMIABLE SARKING** TO AS/NZ 4200.2 & CONDENSATION-IN-BUILDINGS TASMANIAN DESIGNERS GUIDE-VERSION 2 **INSTALLED TO AS1562:2006 PART 3.5.1 OF ABCB Housing Provisions Standard 2022 OF NCC2022.** AND THE MANUFACTURER'S DETAILS WITH FIXINGS EVERY RIB. 38 X 75 F8 OR SIMILAR ROOF BATTENS @900cts.
ROOF PITCH = 3º

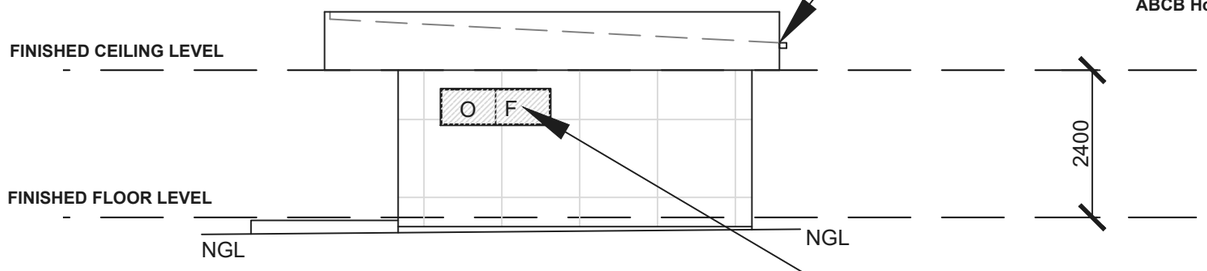
PROVIDE SEALS TO ALL WINDOWS AND DOORS ALONG THE PERIMETER OF CONDITIONED SPACES TO COMPLY WITH PART 13.4.4 OF ABCB Housing Provisions Standard 2022 OF NCC2022

JH MATRIX WALL PANELS OR SIMILAR INSTALLED TO PART 7.5.3 OF ABCB Housing Provisions Standard 2022 OF NCC 2022 AND STRICTLY TO THE MANUFACTURER'S DETAILS AND SPECIFICATIONS.
GAPS SHALL NOT EXCEED 2MM WIDE



N V I E W
ANCILLARY UNIT
SCALE 1:100

NOM D115 GUTTERING TO 100 X 50 DOWNPIPES CONNECTED TO D100SWP TO EXISTING CONNECTION POINT. GUTTERING TO BE INSTALLED WITH AN ACCEPTABLE CONTINUOUS OVERFLOW MEASURE TO COMPLY WITH PART 7.4.6 OF ABCB Housing Provisions Standard 2022 OF NCC2022 DOWNPIPES MUST NOT SERVE GREATER THAN 12m GUTTER LENGTH TO COMPLY WITH PART 7.4.5 OF ABCB Housing Provisions Standard 2022 OF NCC2022



ALUMINIUM FRAMED WINDOWS AND DOORS TO AS1288:2021 AND AS2047:2014. (COLOR- SEA MIST). INSTALLATION TO PART 8.2 and GLASS TO PART 8.3 OF ABCB Housing Provisions Standard 2022 OF NCC2022. AND STRICTLY TO THE MANUFACTURER'S DETAILS AND SPECIFICATIONS

S V I E W
ANCILLARY UNIT
SCALE 1:100

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Sheet : 6 of 15

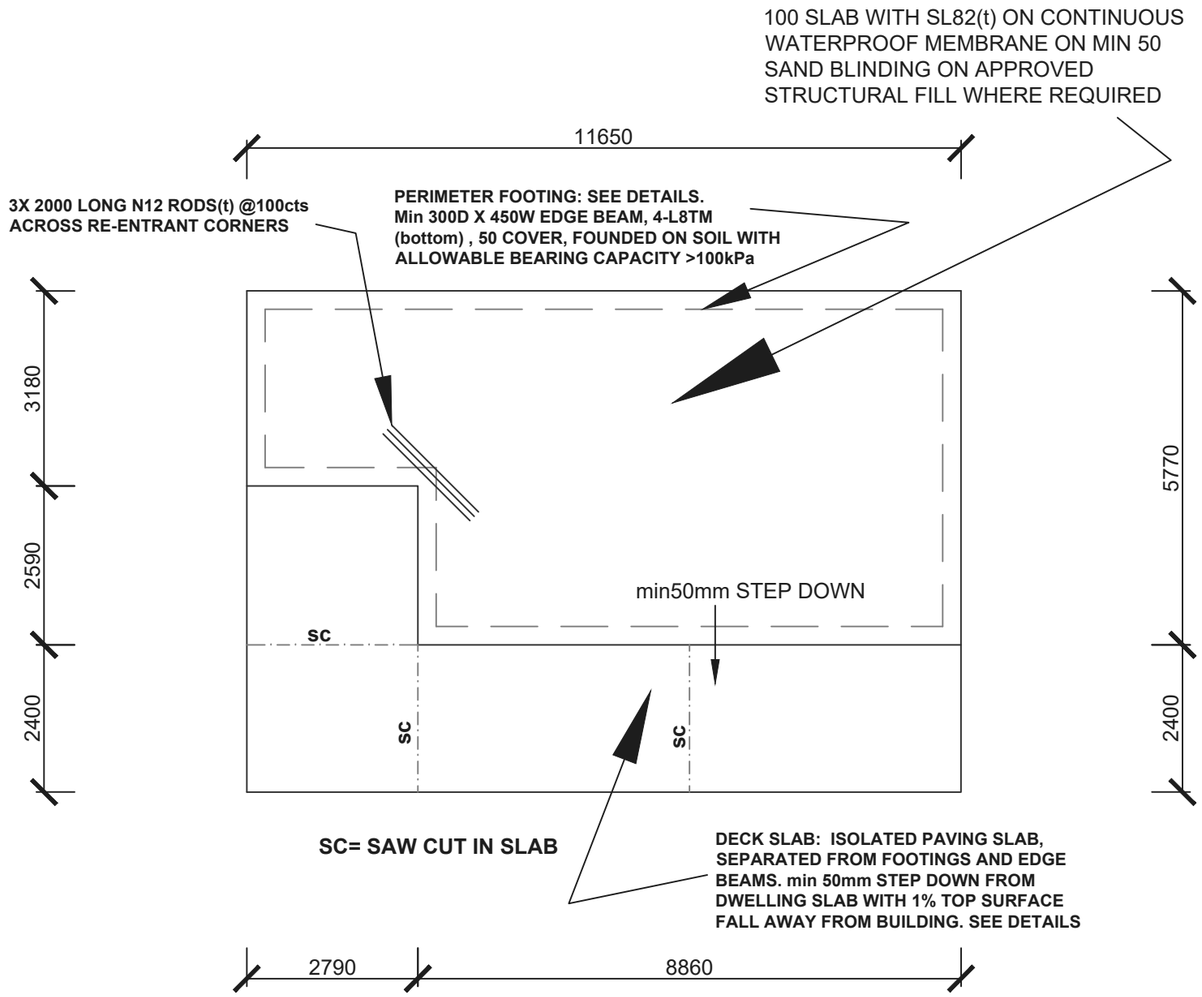
CONCRETE GRADES
FOOTINGS N25
EXPOSED SLABS N32
INTERNAL SLABS N25
CONCRETE SUPPLY TO BE MAX 80mm SLUMP

Curing:

Protection: Protect concrete from premature drying and from excessive hot, cold and/or windy conditions by a suitable approved method.

Minimum Curing Time:

- In-ground footings: 3 days.
- Fully enclosed internal surfaces: 3 days
- Exposed footings, beams and slabs: 7 days.
- Other surfaces: 7 days



FOOTING PLAN
ANCILLARY DWELLING
SCALE 1:100

NB- WHERE CONSTRUCTION TAKES PLACE REMOVE ALL TOP SOIL CONTAINING GRASS ROOTS OR OTHER ORGANIC MATERIAL TO AN APPROVED SUB-GRADE LEVEL. CUT-AND-FILL TO BE PREPARED TO COMPLY WITH PART 3.2.1 OF ABCB Housing Provisions Standard 2022 OF NCC 2022 AND AS2870:2011

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CONCRETE GRADES
FOOTINGS N25
EXPOSED SLABS N32
INTERNAL SLABS N25
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Protection: Protect concrete from premature drying and from excessive hot, cold and/or windy conditions by a suitable approved method.

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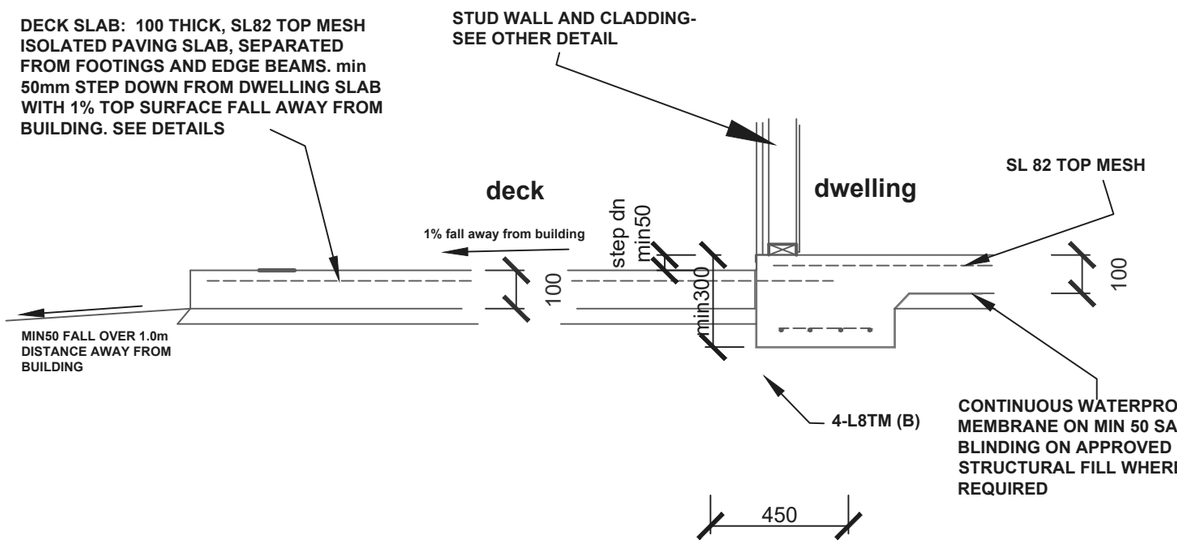
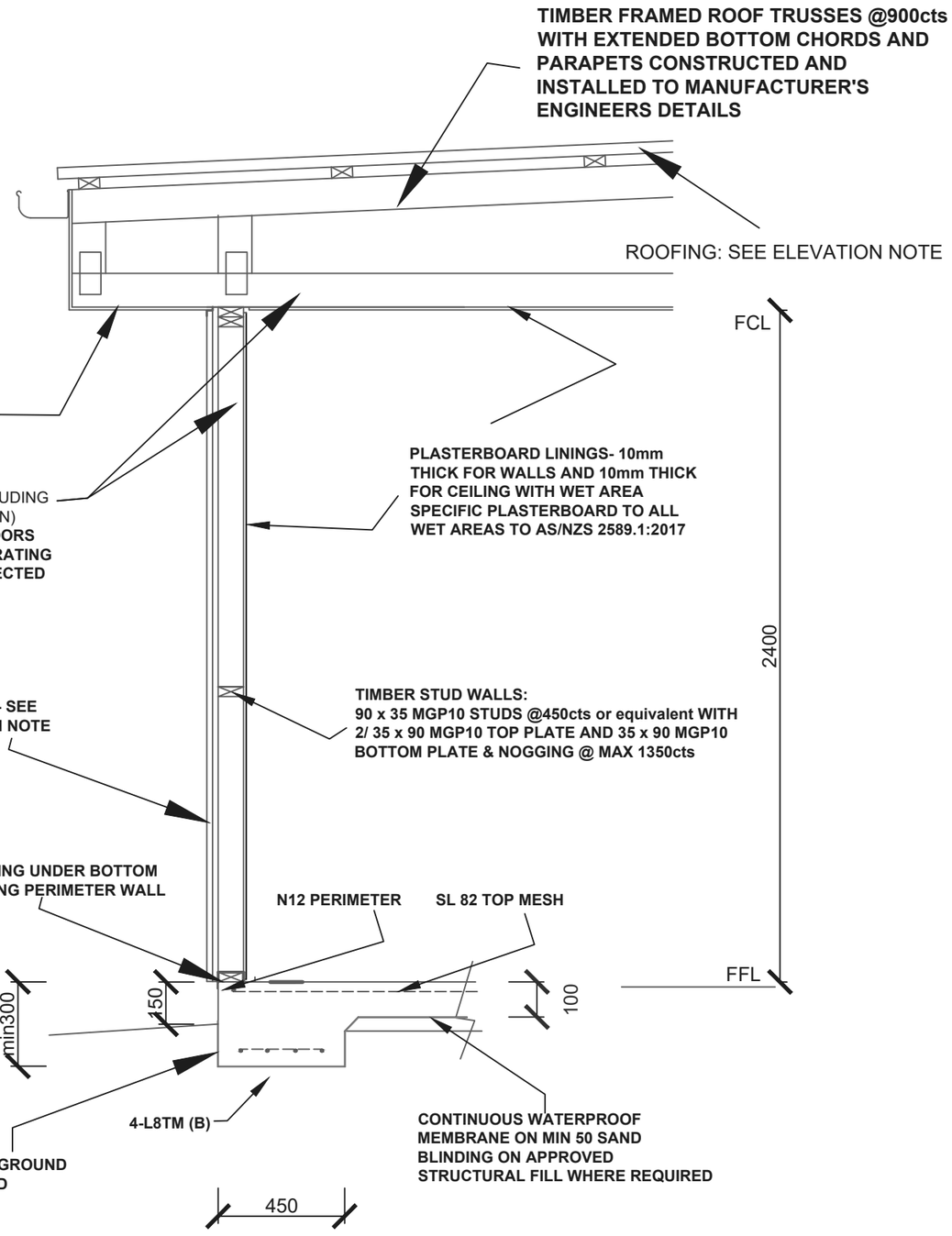
DO NOT SCALE THE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE
BUILDER TO BUILD FROM AUTHORITY APPROVED PLANS ONLY



DECK SLAB

STEPDOWN IN SLAB AND FOOTING



PERIMETER WALL AND FOOTING

TYPICAL SECTION DETAILS

Scale 1:20

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		At: 109 Spitfarm Road, Opossum Bay	**Drawn :**RV **Date:** October 2025 © **Issue Date 09Oct25**	**Sheet :** 8of 15

DO NOT SCALE THE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE
BUILDER TO BUILD FROM AUTHORITY APPROVED PLANS ONLY

TIE DOWN DETAILS FOR N3 WIND CLASSIFICATION

BRACING NOTES:

1. ALL BRACING AND TIE DOWNS SHALL BE ACCORDANCE WITH REQUIREMENTS OF AS1684.2 SECTIONS 8 & 9

2. BRACING SHALL BE IN ACCORDANCE WITH TABLE 8.18:

(h)B - PLY (METHOD B)

(d) - DOUBLE DIAGONAL METAL TENSION STRAP

NOTE: NUMBER FOLLOWING BRACING CODE DENOTES HORIZONTAL LENGTH OF BRACING UNIT

3. ONLY MINIMUM REQUIREMENTS FOR BRACING ARE PROVIDED. ADDITIONAL BRACING MAY BE INSTALLED AS REQUIRED TO PREVENT 'RACKING' OF FRAMES DURING ERECTION.

4. WIND LOAD CLASSIFICATION AS DETERMINED IN ACCORDANCE WITH AS4055-2006 'WIND LOAD FOR HOUSING': N3

5. FIXING TO BE IN ACCORDANCE WITH SECTION 9: FIXING REQUIREMENTS FOR JD5 PINE FRAMING, OR IF HEART IN MATERIAL IS EXCLUDED FROM JOINT, JD4. ALL FRAMING USED FOR PLY BRACING TO HAVE NO HEART IN MATERIAL.

JOISTS TO BEARERS: 3/75 x 3.05 DIA. SKEW NAIL.

BOTTOM PLATES TO SLAB: 1 OFF M12 PROPRIETARY SCREW ANCHOR FOR CONCRETE & MASONRY, 100 mm MIN. EMBEDMENT AT 1200 MAX. CENTRES TO PERIMETER WALLS AND AT EACH END OF BRACING UNITS TO INTERNAL WALLS. OTHERWISE 1 NO. 75mm MASONRY NAIL AT 600 CRS.

BOTTOM PLATES TO FLOOR JOISTS: 3 NO. 3.05 DIA. NAILS AT EACH JOIST OR MAX. 600 CENTRES ALONG JOISTS, MIN. 40mm PENETRATION.

PLATES TO STUDS: 30x0.8 BUILDERS STRAP, 2.8 DIA. NAILS EACH END TO EACH STUD, MIN. 30mm PENETRATION – REFER TABLE 9.19(d)

JAMB STUDS TO PLATES: NAILING AS FOR COMMON STUDS – REFER TABLE 9.19(c)

TOP PLATES TO LINTELS: AS FOR TOP PLATES TO STUDS WITH NAILING AT JACK STUDS (OR MAX 600mm CENTRES ALONG LINTEL). ALSO PROVIDE 30x0.8mm G.I. STRAPS AT EVERY SECOND JACK STUD (OR MAX. 1200 CENTRES ALONG LINTEL) WITH 4 NO. 2.8 DIA. NAILS EACH END. REFER TABLE 9.20(a)

STUDS AT SIDES OF OPENINGS: 1 NO. 75mm NAIL AT 600mm CENTRES MAX.

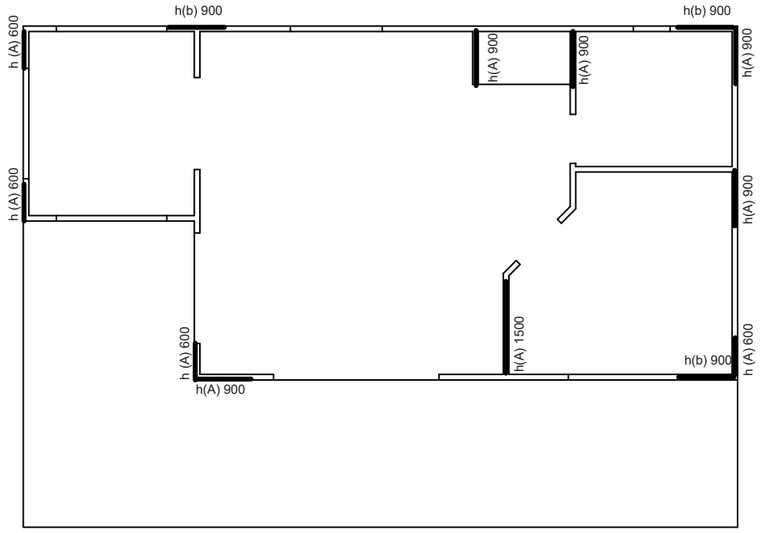
ROOF TRUSSES TO TOP PLATES: AS PER TRUSS MANUFACTURER'S REQUIREMENTS.

COMBINE WITH TOP PLATE TO STUD TIE DOWN WITH 4 NO. 2.8 DIA. NAILS AT EACH END – REFER TABLE 9.21(d)

ROOF BATTENS TO TRUSSES: 1 OFF NO. 14 TYPE 17 BATTEN SCREW REFER TABLE 9.25 OR 1 NO. 75mm 3.05 DIA. GLUE COATED DEFORMED SCREW SHANK NAIL AT EACH CONNECTION, 38mm MIN. PENETRATION INTO TRUSS.

WALL BRACING			
Brace Type	Bracing Capacity	Description	Common Lengths
d	3.0 kN/m	**30 x 0.8 tensioned galv. cross metal straps fixed to studs with one 30 x 2.8Ø galv. flat head nail (or equivalent) and to plates with 4/ 30 x 2.8Ø galv. flat head nails or alternative metal strap fixed as above, with a net sectional area of not less than 22mm². See table 8.18(d) of AS1684.2:2021**	1800=5.4kN 2400=7.2kN 2700=8.1kN
h Method A	5.6 kN/m	**7mm thick F11 Plywood with 30 x 2.8Ø Flat head nails fixed to top and bottom plates @ 150cts, @ 150cts to side studs** and **@ 300cts to internal studs. Horizontal butt joints are permitted, provided nail fixed to nogging @150cts. Provide M12 rod from top to bottom plate at each end of brace, plus a 13kN capacity connection @max1200mm cts** See table 8.18 (h) of AS1684.2:2021	600=3.36kN 900=5.04kN
h Method B	5.2 kN/m	**7mm thick F11 Plywood with 30 x 2.8Ø Flat head nails fixed to top and bottom plates @ 50cts, @ 150cts to side studs** and **@ 300cts to internal studs. Horizontal butt joints are permitted, provided nail fixed to nogging @50cts. Provide a 13kN capacity connection at each end and intermediately @max1200mm cts** See table 8.18 (h) of AS1684.2:2021	900=4.68kN 1200=6.24kN

NOTE- THE ABOVE WALL BRACES NOTED SHALL BE INSTALLED TO COMPLY WITH Table 8.18 (d) & (h) OF AS1684.2 2021. OTHER BRACING ALTERNATIVE TYPES MAY BE USED, PROVIDED THE OVERALL BRACING CAPACITY REQUIRED IN kN IS AT LEAST THE SAME OR BETTER THAN THE VALUES NOTED FOR EACH WIND DIRECTION



AREA OF ELEVATION FOR BRACING PURPOSES= 12.04m²
kN REQUIRED FOR N3 = 12.04 X 1.4= 16.86kN
BRACING SHOWN= 20.16kN

BRACING PLAN
ANCILLARY DWELLING
SCALE 1:100

LINTEL SIZES- SEE ROOF FRAMING PLAN

BRACING KEY

d length — BRACING TYPE d

h(A or B) length — BRACING TYPE h, METHOD A or B

WIND DIRECTION

AREA OF ELEVATION FOR BRACING PURPOSES= 28.81m²
kN REQUIRED FOR N3 = 28.81 X 1.4= 40.33kN
BRACING SHOWN= 43.08kN

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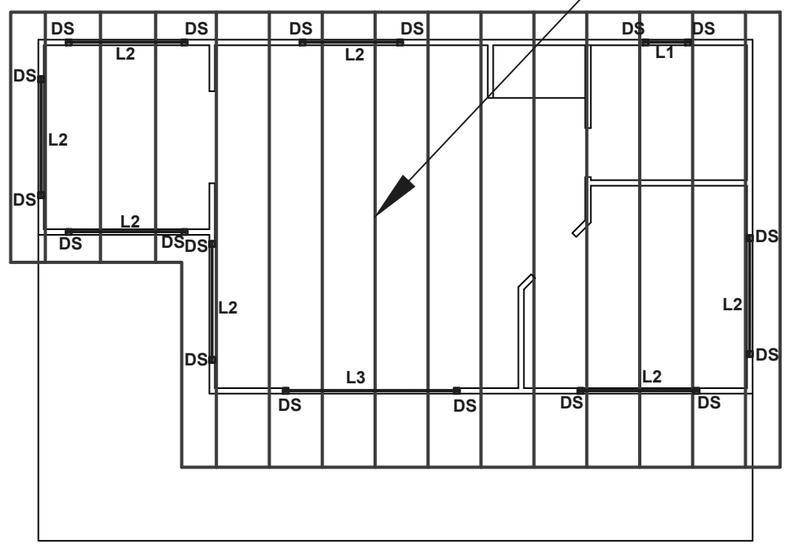
Sheet :9 of 15

DS= 2X 90 x 45 F17 DOUBLE STUDS EACH SIDE OF OPENINGS

Wall lintels:- F17 sizes shown. Other Grades to AS1684.2 may be used.
SINGLE STOREY OR UPPER FLOOR RLW = 4500

L1 Up to 1100 span 90 x 35
L2 Up to 2200 span 140 x 45 or 2/ 120 x 35
L3 Up to 2800 span 190 x 35
L4 Up to 3300 span 2/ 190 x 35

TIMBER FRAMED ROOF TRUSSES @900cts CONSTRUCTED AND INSTALLED TO THE MANUFACTURER'S ENGINEER'S DETAILS AND DRAWINGS



NOTES

1 PROVIDE MIN F17 STUDS TO SIDES OF OPENINGS >1500 WIDE AND TO STUDS >2600 HIGH
2 TRUSS MANUFACTURER TO CONFIRM ALL LINTEL SIZES AND ACCORDING TO TRUSS DESIGN. TRUSSES TO BE SUPPORTED ON EXTERNAL WALLS
3 TRUSS MANUFACTURER TO DESIGN AND DETAIL ROOF BRACNG AND TIE DOWN REQUIREMENTS.
4 PAINT PROTECT EXTERNAL ROOF TIMBER MEMBERS OR CONSULT ENGINEER FOR TREATED PINE DESIGN

ROOF FRAMING PLAN
U n i t 1
S C A L E 1 : 1 0 0

NB- FINAL ROOF TRUSS DESIGN SHALL BE TO THE MANUFACTURER'S ENGINEER'S DETAILS. THE ROOF TRUSS FRAMING MUST BE CONSTRUCTED AND INSTALLED ONLY TO THE MANUFACTURER'S ENGINGEER'S DETAILS PLANS AND SPECIFICATION AND NOT THIS PLAN

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Sheet : 10of 15

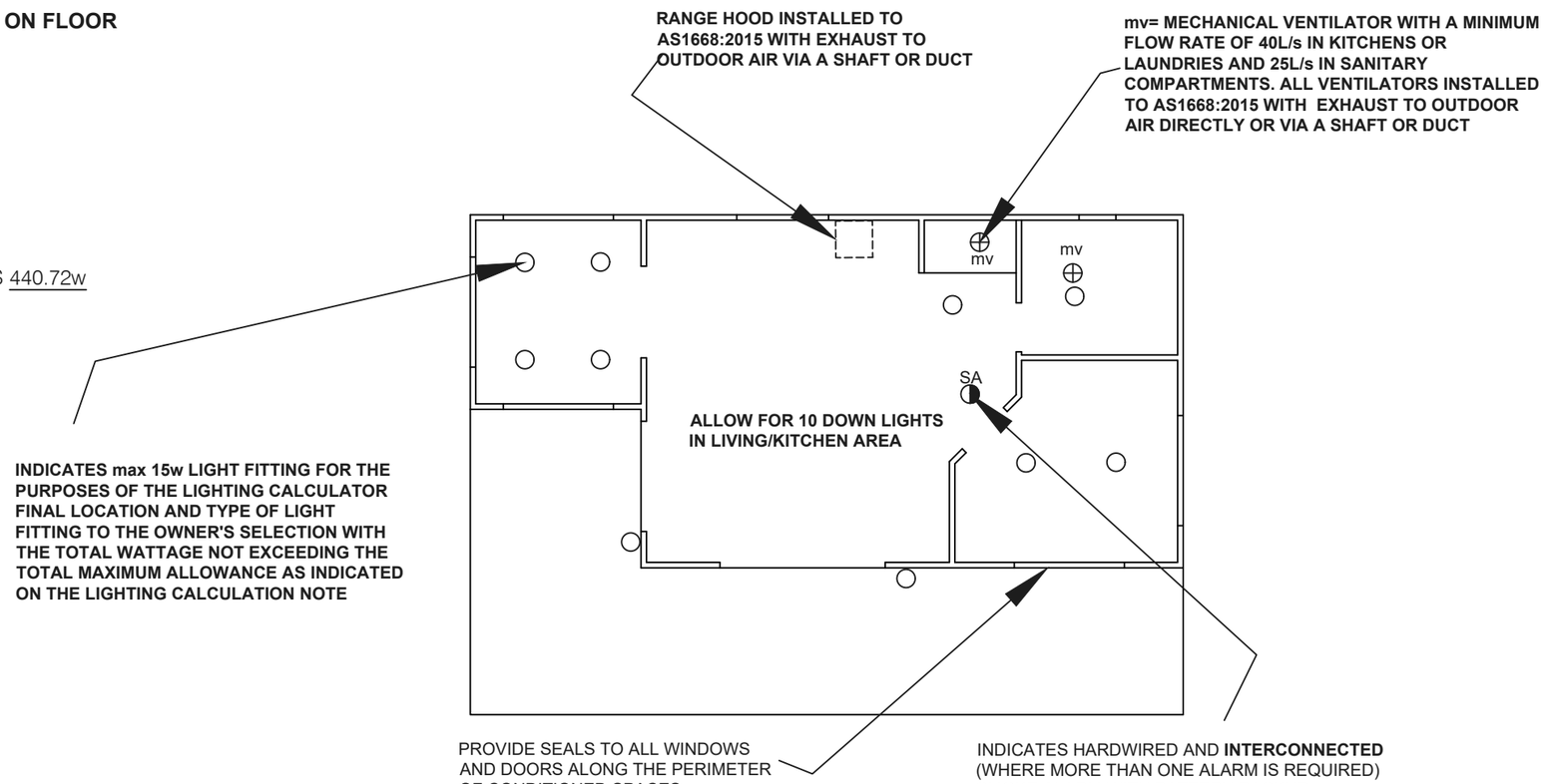
ENERGY RATING NOTES

1 THE RECOMMENDATIONS OF THE ENERGY RATING REPORT OVER-RIDES ALL ENERGY EFFICIENCY RELATED ITEMS NOTED ON THESE PLANS, THEREFORE THESE PLANS MUST BE READ IN CONJUNCTION WITH THE ENERGY RATING REPORT

2 ANY DOWNLIGHTS TO BE INSTALLED SHALL BE 'LED' TYPE DOWNLIGHTS ONLY

3 REQUIRED INSULATION (MIN TOTAL R-VALUE INCLUDING FLOOR, WALL, ROOF AND CEILING CONSTRUCTION)
SEE ENERGY RATING REPORT FOR DETAILS and **NOTE ON FLOOR PLAN AND REFLECTED CEILING PLAN**

LIGHTING CALCULATION
CLASS 10 GARAGE PART OF DWELLING MAXIMUM w/m²= 3w
CLASS 10 PORCH PART OF DWELLING MAXIMUM w/m²= 4w
CLASS 1 PART OF DWELLING MAXIMUM w/m²= 5w
AREA OF CLASS 10 GARAGE = 0m² = 0w
AREA OF CLASS 10 PORCH= 35.18m² = 140.72w
AREA OF CLASS 1 =60m² = 300.00w
THEREFORE TOTAL ALLOWABLE WATTAGE FOR BUILDING IS 440.72w
(eg = maximum 29 x 15w energy efficient light globes allowed)



CEILING PLAN
Ancillary Dwelling
SCALE 1:100

INSULATION-
R4.0 CEILING
R2.5 WALLS
R2.5 SUSPENDED TIMBER FLOORS
R1.5 INSULATION UNDER SLAB

NB- ALL LIGHTING FITTINGS AND SWITCH LOCATIONS TO BE TO THE DEVELOPER'S DIRECTION
ALL LIGHT FITTINGS SHALL BE 'LED' TYPE LIGHTS ONLY

Skizze
Building Design
custom building design
PO Box 562 Swansea NSW 2281. P.0423099841
Accreditation Number CC645J

Client:
R Pestrucci

Proposed: Ancillary Dwelling

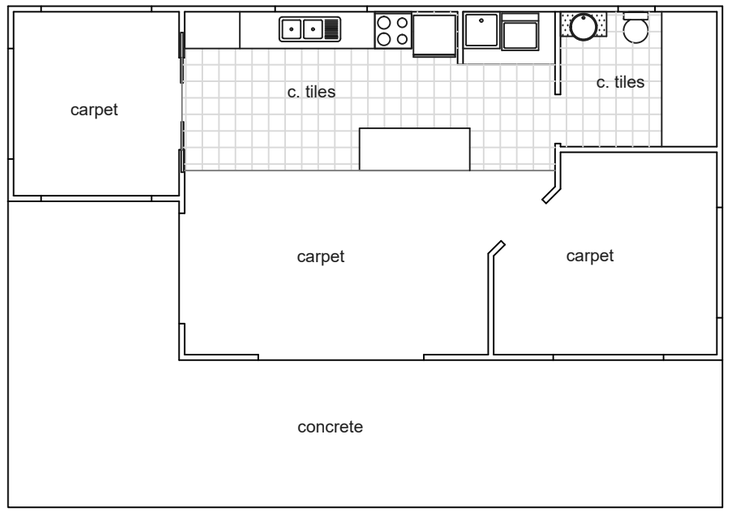
At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Drawn :RV
Date: October 2025 ©
Issue Date 09Oct25

Revisions:

Sheet :11 of 15



FLOOR FINISHES PLAN

Ancillary Dwelling

SCALE 1:100

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Client:
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Proposed: Ancillary Dwelling

At: 109 Spitfarm Road, Opossum Bay

JOB:25025

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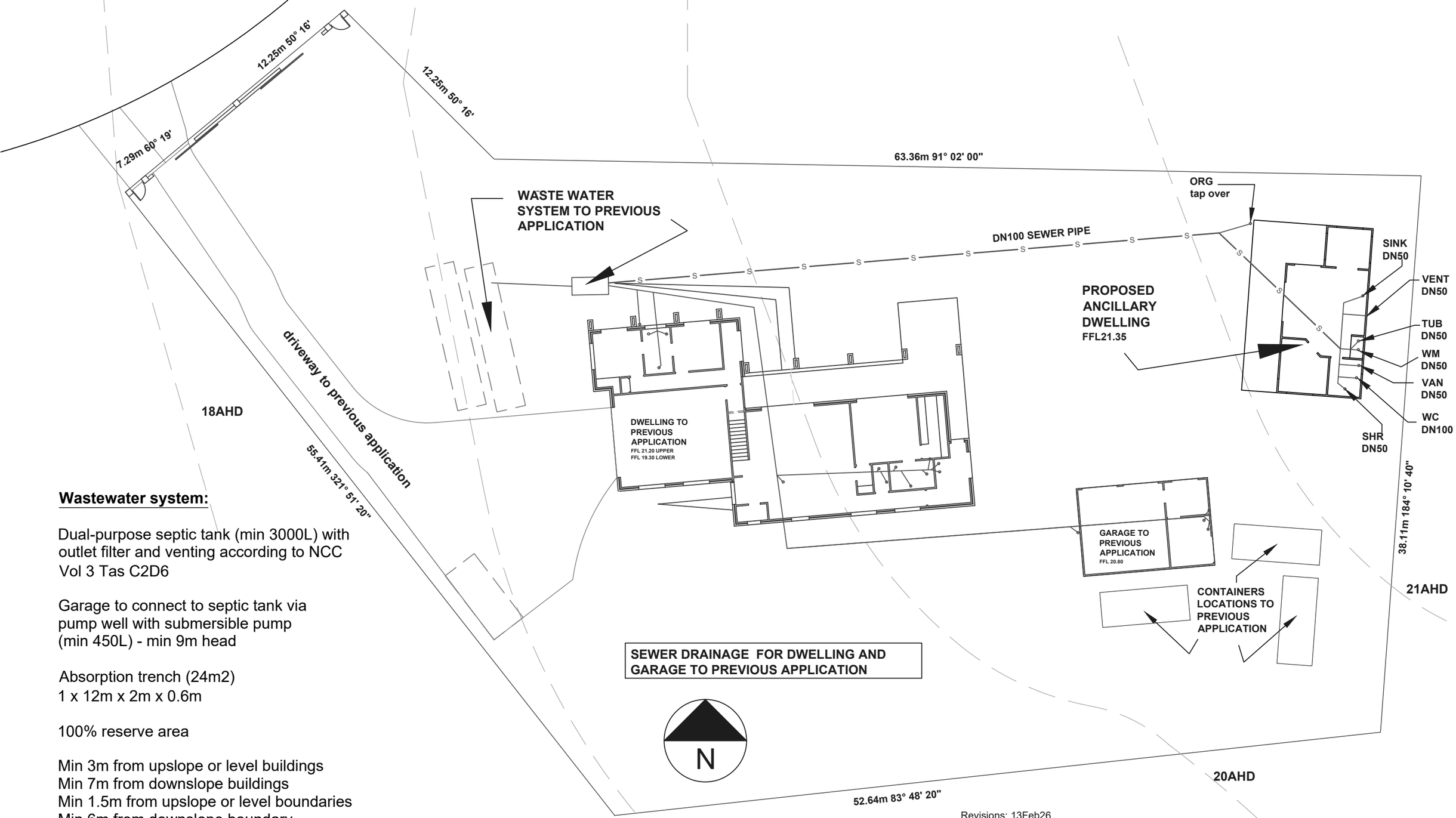
Sheet :12 of 15



SEWER DRAINAGE FOR DWELLING AND GARAGE TO PREVIOUS APPLICATION

Wastewater system:

Dual-purpose septic tank (min 3000L) with outlet filter and venting according to NCC Vol 3 Tas C2D6

Garage to connect to septic tank via pump well with submersible pump (min 450L) - min 9m head

Absorption trench (24m2)
1 x 12m x 2m x 0.6m

100% reserve area

Min 3m from upslope or level buildings
Min 7m from downslope buildings
Min 1.5m from upslope or level boundaries
Min 6m from downslope boundary
Min 100m from downslope surface water

Refer to GES report

S I T E P L A N
S C A L E 1 : 2 5 0
SCHEMATIC SEWER DRAINAGE

Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

Revisions: 15May26
STORMWATER AND SEWER DRAINAGE FOR ANCILIARY DWELLING CHANGED TO MATCH DESIGN BY GEO-ENVIRONMENTAL SOLUTIONS

SEWER DRAINAGE DESIGN SHOWN IS BASED ON GES DESIGN REPORT.
FOR FURTHER DETAILS CONSULT THEIR REPORT.
GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place, Battery Point
T| 62231839 E| office@geosolutions.net.au

Skizze Building Design
custom building design
PO Box 562 Swansea NSW 2281. P.0423099841
Accreditation Number CC645J

Client: R Pestrucci

Proposed: Ancillary Dwelling

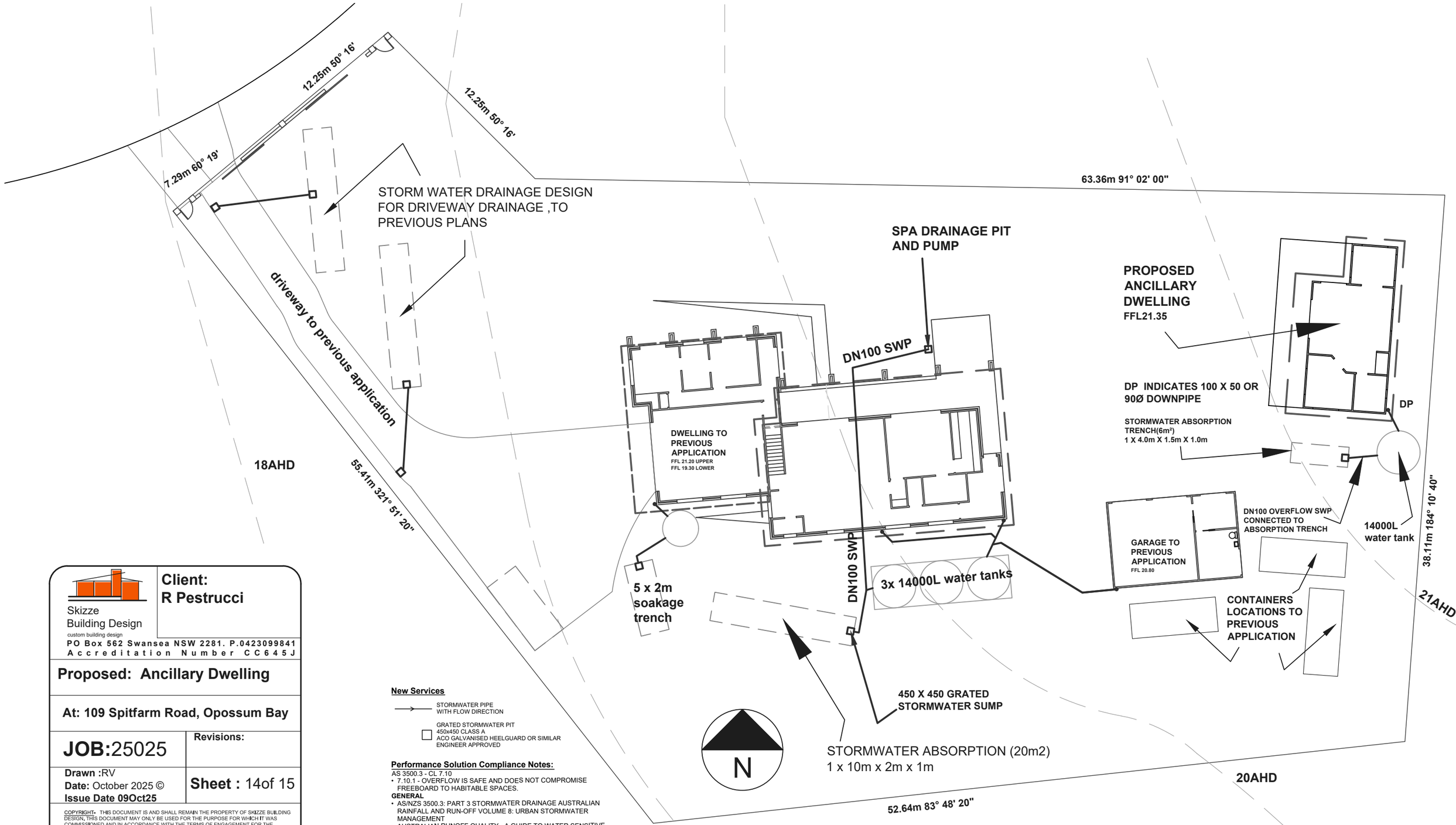
At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Drawn :RV
Date: October 2025 ©
Issue Date 09Oct25

Revisions:

Sheet :13 of 15



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Accreditation Number CC645J

Client:
R Pestrucci

Proposed: Ancillary Dwelling

At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Revisions:

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Date: October 2025 ©
Issue Date 09Oct25

Sheet : 14of 15

S I T E P L A N

S C A L E 1 : 2 5 0

S T O R M W A T E R D R A I N A G E

STORM WATER DESIGN SHOWN IS BASED ON GES ON-SITE STORMWATER SYSTEM DESIGN REPORT. FOR FURTHER DETAILS CONSULT THEIR REPORT.
GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place, Battery Point
T| 62231839 E| office@geosolutions.net.au

New Services

STORMWATER PIPE
WITH FLOW DIRECTION

GRATED STORMWATER PIT
450x450 CLASS A
ACO GALVANISED HEELGUARD OR SIMILAR
ENGINEER APPROVED

Performance Solution Compliance Notes:

AS 3500.3 - CL 7.10
- 7.10.1 - OVERFLOW IS SAFE AND DOES NOT COMPROMISE FREEBOARD TO HABITABLE SPACES.

GENERAL
- AS/NZS 3500.3: PART 3 STORMWATER DRAINAGE AUSTRALIAN RAINFALL AND RUN-OFF VOLUME 8: URBAN STORMWATER MANAGEMENT
- AUSTRALIAN RUNOFF QUALITY - A GUIDE TO WATER SENSITIVE URBAN DESIGN
- STORM DRAINAGE DESIGN IN SMALL URBAN CATCHMENTS: A HANDBOOK FOR AUSTRALIAN PRACTICE
- WATER SENSITIVE URBAN DESIGN (WSUD) ENGINEERING PROCEDURE: STORMWATER
- WATER SERVICES ASSOCIATION OF AUSTRALIA CODE (WSAA)

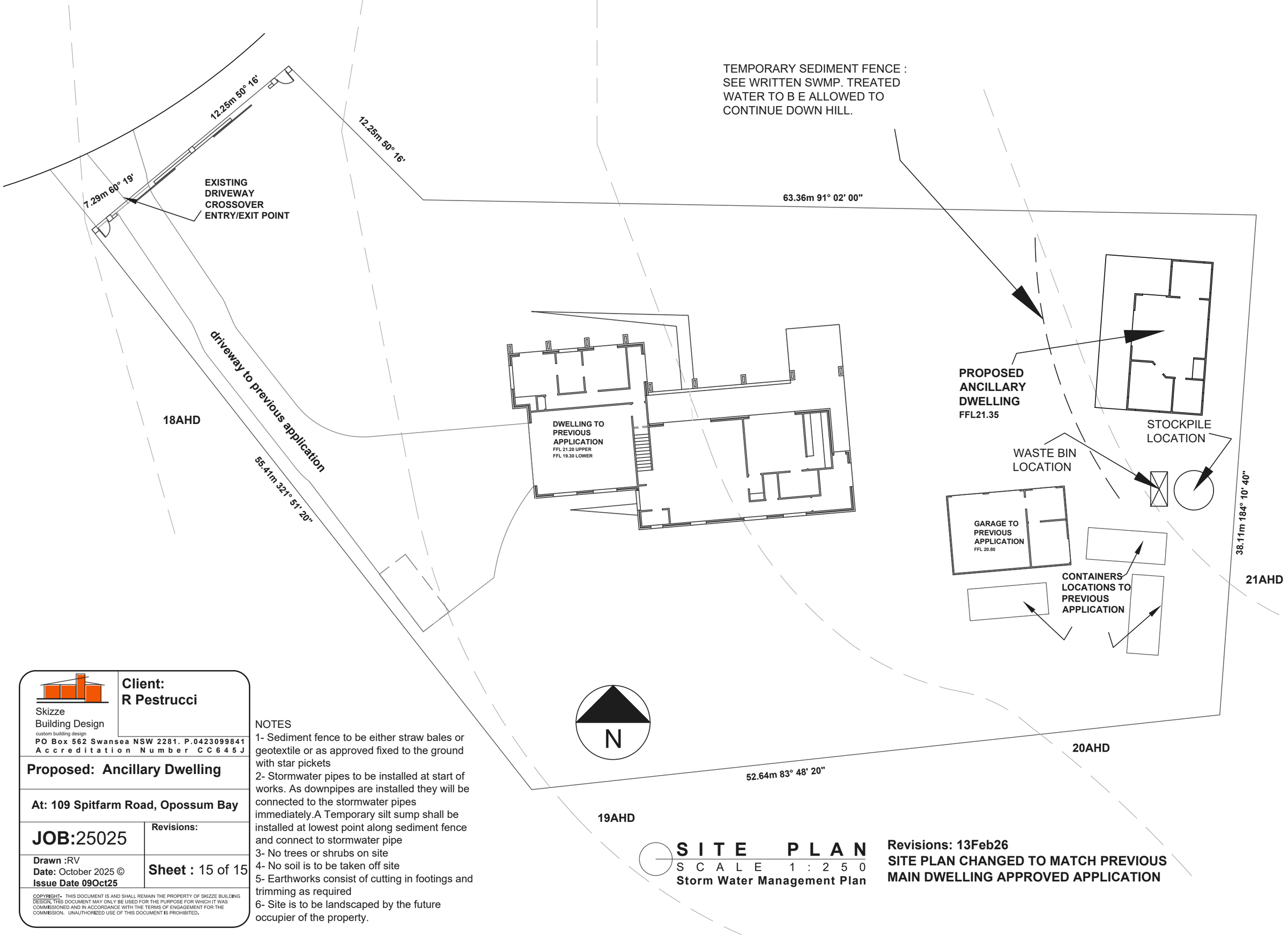
Stormwater Services Notes:

1. ALL SITE SAFETY & MANAGEMENT PROCEDURES SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS: SECTION 168 OCCUPATIONAL HEALTH AND SAFETY & SECTION 176 ENVIRONMENTAL MANAGEMENT.
2. ALL PIPES UNDER TRAFFICABLE AREAS ARE TO BE BACKFILLED FULL DEPTH WITH 20 F.C.R. AND FULLY COMPACTED.
3. ALL STORMWATER PIPES TO BE PVC-U-SWJ CLASS "SN8" TO AS1254 UNO.
4. ALL DRAIN AND TRENCH CONSTRUCTION SHALL COMPLY WITH THE LGAT STANDARD DRG TSD G01.
5. ANY EXCAVATED TRENCHES IN EXCESS OF 1.5M IN DEPTH ARE TO BE ADEQUATELY SHORED TO PREVENT COLLAPSE DURING WORKS.

STORM WATER DRAINAGE FOR DWELLING AND GARAGE TO OTHER APPLICATION

Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

Revisions: 15May26
STORMWATER AND SEWER DRAINAGE FOR ANCILIARY DWELLING CHANGED TO MATCH DESIGN BY GEO-ENVIRONMENTAL SOLUTIONS



Skizze
Building Design
custom building design
PO Box 562 Swansea NSW 2281. P.0423099841
Accreditation Number CC645J

Client:
R Pestrucci

Proposed: Ancillary Dwelling

At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Revisions:

Drawn :RV
Date: October 2025 ©
Issue Date 09Oct25

Sheet : 15 of 15

NOTES
1- Sediment fence to be either straw bales or geotextile or as approved fixed to the ground with star pickets
2- Stormwater pipes to be installed at start of works. As downpipes are installed they will be connected to the stormwater pipes immediately.A Temporary silt sump shall be installed at lowest point along sediment fence and connect to stormwater pipe
3- No trees or shrubs on site
4- No soil is to be taken off site
5- Earthworks consist of cutting in footings and trimming as required
6- Site is to be landscaped by the future occupier of the property.

SITE PLAN
SCALE 1:250
Storm Water Management Plan

Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

GEO-ENVIRONMENTAL SITE ASSESSMENT

109 Spitfarm Road

Opossum Bay

August 2025

Revised March 2026

Revised April 2026

GES

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Robert Pestrucci
Site Address:	109 Spitfarm Road, Opossum Bay
Date of Inspection:	14/07/2025
Proposed Works:	Proposed dwelling, ancillary dwelling and shed/garage
Investigation Method:	Geoprobe 540UD – Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	141046/65
Title Area:	Approx. 3132m^2
Applicable Planning Overlays:	None identified
Slope & Aspect:	Flat to approx. 5% W facing slope
Vegetation:	Mixed flora

Background Information

Geology Map:	MRT 1:25 000
Geological Unit:	Quaternary sediments
Climate:	Annual rainfall approx. 550mm
Water Connection:	Tank
Sewer Connection:	Unserviced-on-site required
Testing and Classification:	*AS2870:2011, AS1726:2017, AS1547:2012 & AS4055:2021*

Investigation

A number of test holes were completed to identify the distribution of, and variation in soil materials on the site. Representative test holes drilled at the approximate location indicated on the site plan were chosen for testing and classification according to AS2870-2011 & AS1547-2012 (see profile summary).

Engineering Profile Summary

Hole 1 Depth (m)	Hole 2 Depth (m)	USCS	Description
0.00 – 0.20	0.00 – 0.30	SP	**SAND**: dark grey, slightly moist, medium dense
0.20 – 1.60	0.30 – 1.50	SP	**SAND**: light grey, brown, slightly moist, dense
1.60 – 3.0+	1.50 – 2.0+	SP	**SAND**: pale brown, slightly moist, dense, trace CLAY no refusal.

Wastewater Profile Summary

Hole 3 Depth (m)	Horizon	Description
0.00 – 0.30	A1	Dark Grey **SAND (SP)**: slightly moist loose consistency, single grain structure, gradual boundary to
0.30 – 1.60	A2	Light Greyish Brown **SAND (SP)**: slightly moist dense consistency, single grain structure, gradual boundary to
1.60 – 2.0+	A3	Pale Brown **SAND (SP)**: slightly moist dense consistency, single grain structure, lower boundary undefined.

Site Notes

The soils on site features deep sandy soils formed from Quaternary sediments. These soils are non-reactive and have relatively good capacity for onsite wastewater disposal.

Site Classification

The site has been assessed and classified in accordance with AS2870:2011 *"Residential Slabs and Footings".*

The site has been classified as:

Class A

Y_s range: **0mm**

Notes: that is a non-reactive site.

Wind Loading Classification

According to *"AS4055:2021 - Wind Loads for Housing"* the house site is classified below:

Wind Classification: N3

Region:	A
Terrain Category:	1.0
Shielding Classification:	NS
Topographic Classification:	T1
Wind Classification:	N3
Design Wind Gust Speed – m/s ($V_{h,u}$):	50

Wastewater Classification & Recommendations

According to AS1547-2012 for on-site wastewater management the soil on the property is classified as **SAND (Category 1)**. It is proposed to install a primary treatment system with onsite absorption. A Design Loading Rate (DLR) of 25L/m^2/day has been assigned for this site.

The proposed development has a calculated maximum wastewater output of 1080L/day. This is based on a tank water supply and a maximum occupancy of 5 people in the primary dwelling and 4 people in the ancillary dwelling (120L/person/day). Using the DLR of 25L/m^2/day, an absorption area of at least 44m^2 will be required. It is proposed to accommodate this using one 14.6m x 3m x 0.6m absorption bed connected to a dual-purpose septic tank (min 4000L) with outlet filter.

Included in the proposed development is a detached garage which includes plumbing fixtures. Providing the use of the garage is for domestic purposes by residents of the proposed dwelling, there will be no increase wastewater loading from the proposed fixtures. All fixtures within the garage must connect to the proposed onsite wastewater system via gravity (min 1:60 fall required).

A cut-off diversion drain will not be required due to the highly permeable soils and gentle relief of the site. Care should be taken to ensure that excess stormwater flows are diverted away from the application area. A 100% reserve area should be set aside for future wastewater requirements and should be kept free from development. For further details see attached plan and Trench summary reports.

The following setback distances are required to be consistent with Building Act 2016:

Upslope or level buildings:	3m
Downslope buildings:	7m
Upslope or level boundaries:	1.5m
Downslope boundary:	6m
Downslope surface water:	100m

Demonstration of the system being consistent with Building Act 2016 Guidelines for On-site Wastewater Management Systems is outlined in the attached table.

Construction Notes & Recommendations

According to *"AS2870-2011 Residential slabs & footings"* the site has been classified as **Class A** (0mmY_s range). Design and construction should be made in accordance with this classification.

The natural subsoils on site returned good bearing capacities throughout the profile, see Appendix 1 for PSP results.

All earthworks on site must comply with AS3798:2012, and I further recommend that consideration be given to drainage and sediment control on site during and after construction. Care should also be taken to ensure there is adequate drainage in the construction area to avoid the potential for weak bearing and foundation settlement associated with excessive soil moisture.

I also recommend that during construction that I and/or the design engineer be notified of any major variation to the foundation conditions or wastewater loading as outlined in this report.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD

Director

Appendix 1 – PSP Results Table

Perth Sand Penetrometer (PSP) Conversion to Californian Bearing Ratio
(ref: Australian Standard AS 1289.6.3.3 - 1997)

PSP Location TH1

Depth (mm)	PSP (Blows/100mm)	PSP (mm/Blow)	PSP Resistance (mPa)	Allowable Bearing Capacity (kPa)	CBR (Rounded Up)
0-100	1	100.0	0.3	37	2
100-200	2	50.0	0.6	74	4
200-300	3	33.3	0.9	110	6
300-400	3	33.3	0.9	110	6
400-500	2	50.0	0.6	74	4
500-600	3	33.3	0.9	110	6
600-700	4	25.0	1.3	147	8
700-800	7	14.3	2.2	257	15
800-900	7	14.3	2.2	257	15
900-1000	7	14.3	2.2	257	15
1000-1100	7	14.3	2.2	257	15
1100-1200	10	10.0	3.1	368	22
1200-1300	11	9.1	3.4	404	25
1300-1400	11	9.1	3.4	404	25
1400-1500	11	9.1	3.4	404	25
1500-1600	11	9.1	3.4	404	25
1600-1700	14	7.1	4.4	515	32
1700-1800	15	6.7	4.7	551	35
1800-1900	15	6.7	4.7	551	35
1900-2000	18	5.6	5.6	662	43

Explanatory Notes

1 Scope of Works

The methods of description and classification of soils used in this report are based largely on Australian Standard 1726 – Geotechnical Site Investigations (AS1726:2017), with reference to Australian Standard 1289 – Methods for testing soils for engineering purposes (AS1289), for eventual Site Classification according to Australian Standard 2870 (AS2870:2011) – Residential Slabs and Footings and Australian Standard 1547 (AS1547:2012) On-site domestic wastewater management.

1.1 Site Classification AS2870:2011

Site classification with reference to the above Australian Standards are based on site reactivity.

Class	Foundation Conditions	Characteristic Surface Movement
A	Most sand and rock sites with little or no ground movement from moisture changes.	**0mm**
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes.	**0 – 20mm**
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes.	**20 – 40mm**
H-1	Highly reactive clay sites, which may experience high ground movement from moisture changes.	**40 – 60mm**
H-2	Highly reactive clay sites, which may experience very high ground movement from moisture changes.	**60 – 75mm**
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes.	**>75mm**

*Note: Soils where foundation performance may be significantly affected by factors other than reactive soil movement are classified as **Class P**.*

A site is classified as **Class P** when:

- The bearing capacity of the soil profile in the foundation zone is generally less than 100kpa
- If excessive foundation settlement may occur due to loading on the foundation.
- The site contains uncontrolled fill greater than 0.8m in depth for sandy sites and 0.4m in depth for other soil materials.
- The site is subject to mine subsistence, landslip, collapse activity or coastal erosion.
- The site is underlain by highly dispersive soils with significant potential for erosion
- If the site is subject to abnormal moisture conditions which can affect foundation performance

1.2 Soil Characterisation

This information explains the terms of phrase used within the soil description area of the report.

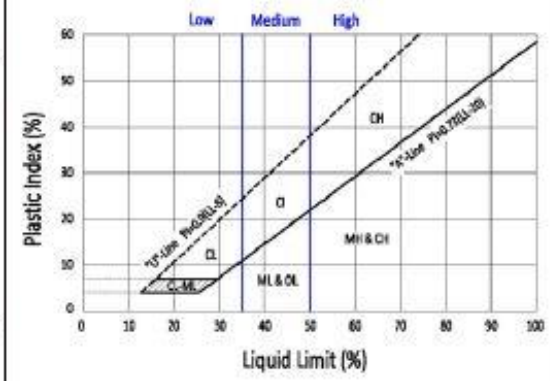
It includes terminology for cohesive and non-cohesive soils and includes information on how the Unified Soil Classification Scheme (USCS) codes are determined.

NON COHESIVE – SAND & GRAVEL		
Consistency Description	**Field Test**	**Dynamic Cone Penetrometer blows/100 mm**
Very loose (VL)	Easily penetrated with 13 mm reinforcing rod pushed by hand.	0 - 1
Loose (L)	Easily penetrated with 13 mm reinforcing rod pushed by hand. Can be excavated with a spade; 50 mm wooden peg can be easily driven.	1 - 3
Medium dense (MD)	Penetrated 300 mm with 13 mm reinforcing rod driven with 2 kg hammer, - hard shovelling.	3 - 8
Dense (D)	Penetrated 300 mm with 13 mm reinforcing rod driven with 2 kg hammer, requires pick for excavation: 50 mm wooden peg hard to drive.	8 - 15
Very dense (VD)	Penetrated only 25 - 50 mm with 13 mm reinforcing rod driven with 2 kg hammer.	>15

COHESIVE - SILT & CLAY		
Consistency Description	**Field Test**	**Indicative undrained shear strength kPa**
Very soft	Easily penetrated >40 mm by thumb. Exudes between thumb and fingers when squeezed in hand.	<12
Soft	Easily penetrated 10 mm by thumb. Moulded by light finger pressure	>12 and <25
Firm	Impression by thumb with moderate effort. Moulded by strong finger pressure	>25 and <50
Stiff	Slight impression by thumb cannot be moulded with finger.	>50 and <100
Very Stiff	Very tough. Readily indented by thumbnail.	>100 and <200
Hard	Brittle. Indented with difficulty by thumbnail.	>200

1.3 USCS Material Descriptions

Soils for engineering purposes are the unconsolidated materials above bedrock, they can be residual, alluvial, colluvial or aeolian in origin.

Major Divisions		Particle size mm	USCS Group Symbol	Typical Names	Laboratory Classification				
					% < 0.075 mm (2)	Plasticity of fine fraction	$C_u = \frac{D_{60}}{D_{10}}$	$C_c = \frac{(D_{30})^2}{(D_{10})(D_{60})}$	NOTES
COARSE GRAINED SOILS (more than half of material less than 63 mm is larger than 0.075 mm)	BOULDERS	200							
	COBBLES	63							
	GRAVELS (more than half of coarse fraction is larger than 2.36 mm)	coarse 20 medium 6 fine 2.36	GW	Well graded gravels and gravel-sand mixtures, little or no fines	0-5	—	>4	Between 1 and 3	(1) Identify fines by the method given for fine-grained soils. (2) Borderline classifications occur when the percentage of fines (fraction smaller than 0.075 mm size) is greater than 5% and less than 12%. Borderline classifications require the use of SP-SM, GW-GC.
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines, uniform gravels	0-5	—	Fails to comply with above		
			GM	Silty gravels, gravel-sand-silt mixtures (1)	12-50	Below 'A' line or PI<4	—	—	
			GC	Clayey gravels, gravel-sand-clay mixtures (1)	12-50	Above 'A' line and PI>7	—	—	
	SANDS (more than half of coarse fraction is smaller than 2.36 mm)	coarse 0.6 medium 0.2 fine 0.075	SW	Well graded sands and gravelly sands, little or no fines	0-5	—	>6	Between 1 and 3	
			SP	Poorly graded sands and gravelly sands, little or no fines	0-5	—	Fails to comply with above		
			SM	Silty sands, sand silt mixtures (1)	12-50	Below 'A' line or PI<4	—	—	
			SC	Clayey sands, sand-clay mixtures (1)	12-50	Above 'A' line and PI>7	—	—	
FINE GRAINED SOILS (more than half of material less than 63 mm is smaller than 0.075 mm	SILTS & CLAYS (Liquid Limit ≤50%)		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Use the gradation curve of material passing 63 mm for classification of fractions according to the criteria given in 'Major Divisions'				Plasticity Chart For classification of fine grained soils and fine fraction of coarse grained soils. 
			CL CI	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays					
			OL	Organic silts and clays of low plasticity					
	SILTS & CLAYS (Liquid Limit >50%)		MH	Inorganic silts, mic- aceous or diato-maceous fine sands or silts, elastic silts					
			CH	Inorganic clays of high plasticity, fat clays					
			OH	Organic silts and clays of high plasticity					
	HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils					

Grain size analysis is performed by two processes depending on particle size. Sand silt and clay particles are assessed using a standardised hydrometer test, and coarse sand and larger is assessed through sieving by USCS certified sieves. For more detail see the following section.

Soil Classification	Particle Size
Clay	Less than 0.002mm
Silt	0.002 – 0.06mm
Fine/Medium Sand	0.06 – 2.0mm
Coarse Sand	2.0mm – 4.75mm
Gravel	4.75mm – 60.00mm

1.4 Bearing Capacities and DCP testing.

DCP and PSP weighted penetrometer tests – Dynamic Cone Penetrometer (DCP) and Perth Sand Penetrometer (PSP) tests are carried out by driving a rod into the ground with a falling weight hammer and measuring the blows for successive 100mm increments of penetration. Normally, there is a depth limitation of 1.2m but this may be extended in certain conditions by the use of extension rods. The methods for the two tests are quite similar.

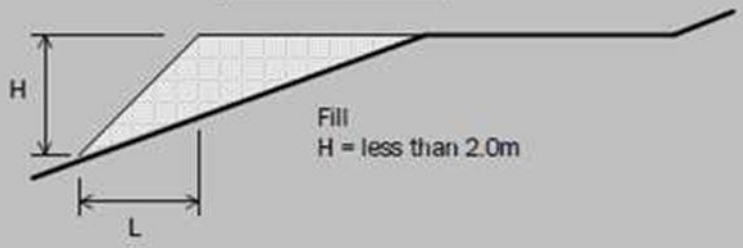
- Dynamic Cone Penetrometer – a 16mm rod with a 20mm diameter cone end is driven with a 9kg hammer dropping 510mm (AS 1289, Test 6.3.2).
- Perth Sand Penetrometer – a 16mm diameter flat-ended rod is driven with a 9kg hammer, dropping 600mm (AS 1289 Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.

Site Anomalies – During construction GES will need to be notified of any major variation to the foundation conditions as predicted in this report.

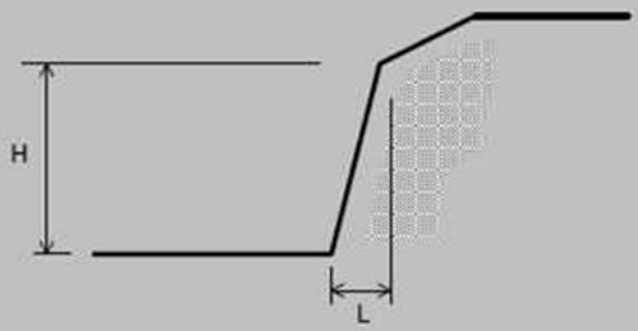
1.5 Batter Angles for Embankments *(Guide Only)*

Note : Retaining walls or other form of soil retaining methods must be adopted where the slope ratio is greater than that indicated in the table below :-

FILL EMBANKMENTS



CUT EMBANKMENTS



MATERIAL TYPE (refer soils report)		EMBANKMENT SLOPES (Height : Length)	
		Compacted Fill	Cutting
Stable Rock (A*)		2 : 3	6 : 1
Sand (A*)		1 : 2	2 : 3
Silt (P*)		1 : 4	1 : 4
Clay	Firm Clay	1 : 2	1 : 1
	Soft Clay	Not Suitable	2 : 3
Soft Soils (P*)		Not Suitable	Not Suitable

Glossary of Terms

Bearing Capacity – Maximum bearing pressure that can be sustained by the foundation from the proposed footing system under service loads which should avoid failure or excessive settlement.

Clay – (Mineral particles less than 0.002mm in diameter). Fine grained cohesive soil with plastic properties when wet. Also includes sandy clays, silty clays, and gravelly clays.

Dynamic Cone Penetrometer (DCP) – Field equipment used to determine underlying soil strength and therefore bearing capacity (kPa) by measuring the penetration of the device into the soil after each hammer blow.

Dispersive soil – A soil that has the ability to pass rapidly into suspension in water.

Footing – Construction which transfers the load from the building to the foundation.

Foundation – Ground which supports the building

Landslip – Foundation condition on a sloping site where downhill foundation movement or failure is a design consideration.

Qualified Engineer – A professional engineer with academic qualifications in geotechnical or structural engineering who also has extensive experience in the design of the footing systems for houses or similar structures.

Reactive Site – Site consisting of clay soil which swells on wetting and shrinks on drying by an amount that can damage buildings on light strip footings or unstiffened slabs. Includes sites classified as S, M, H-1, H-2 & E in accordance with AS2870-2011.

Sand – (Mineral particles greater than 0.02mm in diameter). Granular non-cohesive, non-plastic soil that may contain fines including silt or clay up to 15%.

Services – Means all underground services to the site including but not limited to power, telephone, sewerage, water & storm water.

Silt – (Mineral particles 0.002 – 0.02mm in diameter). Fine grained non-cohesive soil, non-plastic when wet. Often confers a silky smoothness of field texture, regularly includes clay and sand to form clayey silts, sandy silts and gravelly silts.

Site – The site title, as denoted by address, lot number, or Certificate of Title (CT) number, or Property Identification Number (PID).

Surface Movement (Ys) – Design movement (mm) at the surface of a reactive site caused by moisture changes.

Disclaimer

This Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and the Client. To the best of GES's knowledge, the information presented herein represents the client's requirements at the time of printing of the Report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that discussed in this Report. In preparing this Report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this Report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible geotechnical parameter or the soil conditions over the whole area of the site. Soil and rock samples collected from the investigation area are assumed to be representative of the areas from where they were collected and not indicative of the entire site. The conclusions discussed within this report are based on observations and/or testing at these investigation points.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required.

No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third a party.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Site assessment for on-site waste water disposal

Assessment for	Robert Pestrucci	Assess. Date	27-Apr-26
		Ref. No.	
Assessed site(s)	109 Spitfarm Road, Opossum Bay	Site(s) inspected	14-Jul-25
Local authority	Clarence	Assessed by	John Paul Cumming

This report summarises wastewater volumes, climatic inputs for the site, soil characteristics and sustem sizing and design issues. Site Capability and Environmental sensitivity issues are reported separately, where 'Alert' columns flag factors with high (A) or very high (AA) limitations which probably require special consideration for system design(s). Blank spaces on this page indicate data have not been entered into TRENCH.

Wastewater Characteristics

Wastewater volume (L/day) used for this assessment = 1,080 (using a method independent of the no. of bedrooms)
Septic tank wastewater volume (L/day) = 360
Sullage volume (L/day) = 720
Total nitrogen (kg/year) generated by wastewater = 3.3
Total phosphorus (kg/year) generated by wastewater = 2.6

Climatic assumptions for site (Evapotranspiration calculated using the crop factor method)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	44	39	44	45	40	43	46	46	43	52	48	54
Adopted rainfall (R, mm)	44	39	44	45	40	43	46	46	43	52	48	54
Retained rain (Rr, mm)	40	35	40	41	36	39	41	41	39	47	43	49
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	**91**	**75**	**51**	**23**	**6**	**-9**	**-10**	**1**	**24**	**37**	**62**	**77**

Annual evapotranspiration less retained rain (mm) = 427

Soil characterisitics

Texture = Sand Category = 1 Thick. (m) = 3
Adopted permeability (m/day) = 3 Adopted LTAR (L/sq m/day) = 25 Min depth (m) to water = 5

Proposed disposal and treatment methods

Proportion of wastewater to be retained on site:	All wastewater will be disposed of on the site
The preferred method of on-site primary treatment:	In dual purpose septic tank(s)
The preferred method of on-site secondary treatment:	In-ground
The preferred type of in-ground secondary treatment:	Trench(es)
The preferred type of above-ground secondary treatment:	None
Site modifications or specific designs:	Not needed

Suggested dimensions for on-site secondary treatment system

Total length (m) = 15
Width (m) = 3
Depth (m) = 0.6
Total disposal area (sq m) required = 44
comprising a Primary Area (sq m) of: 44
and a Secondary (backup) Area (sq m) of:

Sufficient area is available on site

Comments

The calculated DLR for the Category 1 soil present is 25L/m^2/day with a required absorption area of 44m^2 for the proposed development. Therefore the system will have the capacity to cope with predicted climatic and loading events.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Site Capability Report

Site assessment for on-site waste water disposal

Assessment for	Robert Pestrucci	Assess. Date	27-Apr-26
		Ref. No.	
Assessed site(s)	109 Spitfarm Road, Opossum Bay	Site(s) inspected	14-Jul-25
Local authority	Clarence	Assessed by	John Paul Cumming

This report summarises data relating to the physical capability of the assessed site(s) to accept wastewater. Environmental sensitivity and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) site limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation		Remarks
					Trench	Amended	
	Expected design area	sq m	1,000	V. high	Moderate		
	Density of disposal systems	/sq km	20	Mod.	Moderate		
	Slope angle	degrees	1	High	Very low		
	Slope form	Straight simple		High	Low		
	Surface drainage	Good		High	Very low		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
A	Aspect (Southern hemi.)	Faces SE or SW		V. high	High		
	Frequency of strong winds	Common		High	Low		
A	Wastewater volume	L/day	1,080	High	High		
	SAR of septic tank effluent		1.7	High	Low		
	SAR of sullage		2.6	High	Moderate		
	Soil thickness	m	3.0	V. high	Very low		
	Depth to bedrock	m	3.0	V. high	Very low		
	Surface rock outcrop	%	0	V. high	Very low		
	Cobbles in soil	%	0	V. high	Very low		
	Soil pH		5.5	High	Low		
	Soil bulk density	gm/cub. cm	1.4	High	Very low		
	Soil dispersion	Emerson No.	8	V. high	Very low		
	Adopted permeability	m/day	3	Mod.	Very high	Moderate	Other factors lessen impact
	Long Term Accept. Rate	L/day/sq m	25	High	Moderate		

Comments

The site has the capability to accept onsite wastewater.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Environmental Sensitivity Report

Site assessment for on-site waste water disposal

Assessment for	Robert Pestrucci	Assess. Date	27-Apr-26
		Ref. No.	
Assessed site(s)	109 Spitfarm Road, Opossum Bay	Site(s) inspected	14-Jul-25
Local authority	Clarence	Assessed by	John Paul Cumming

This report summarises data relating to the environmental sensitivity of the assessed site(s) in relation to applied wastewater. Physical capability and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
A	Cation exchange capacity	mmol/100g	30	High	High		
A	Phos. adsorp. capacity	kg/cub m	0.3	High	High		
	Annual rainfall excess	mm	-427	High	Very low		
	Min. depth to water table	m	5	High	Very low		
	Annual nutrient load	kg	5.9	High	Low		
	G'water environ. value	Agric non-sensit		V. high	Low		
	Min. separation dist. required	m	2	High	Very low		
	Risk to adjacent bores	Very low		V. high	Very low		
A	Surf. water env. value	Recreational		V. high	High		
	Dist. to nearest surface water	m	200	V. high	Moderate		
	Dist. to nearest other feature	m	50	V. high	Moderate	No change	
	Risk of slope instability	Very low		V. high	Very low		
	Distance to landslip	m	200	V. high	Low		

Comments

The soil on site has a sandy texture and a low CEC, therefore the soil system has a low capacity to cope with the applied nutrient load from the system. The planting of deep rooted grasses is recommended to encourage nutrient uptake. The wastewater system complies with the required setbacks to downslope surface water.

Demonstration of wastewater system being consistent with *Building Act 2016 Guidelines for On-site Wastewater*

Acceptable Solutions	**Performance Criteria**	**Compliance**
A1 Horizontal separation distance from a building to a land application area must comply with one of the following: a) be no less than 6m; or b) be no less than: (i) 3m from an upslope building or level building; (ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building; (iii) If secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building.	P1 a) The land application area is located so that (i) the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.; and (ii) is setback a sufficient distance from a downslope excavation around or under a building to prevent inadequately treated wastewater seeping out of that excavation	Consistent with A1 (b) (i) Land application area will be located with a minimum separation distance of 3m from an upslope or level building. Consistent with A1 (b) (ii) Land application area will be located with a minimum separation distance of 7m of downslope building.
A2 Horizontal separation distance from downslope surface water to a land application area must comply with (a) or (b) (a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water.	P2 Horizontal separation distance from downslope surface water to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R; b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Consistent with A2 (a) Land application area located > 100m from downslope surface water

A3 Horizontal separation distance from a property boundary to a land application area must comply with either of the following: (a) be no less than 40m from a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; and (ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	P3 Horizontal separation distance from a property boundary to a land application area must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Consistent with A3 (b) (i) Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary Consistent with A3 (b) (ii) Land application area will be located with a minimum separation distance of 6m of downslope property boundary.
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.	P4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable	No bore or well identified within 50m

A5 Vertical separation distance between groundwater and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	P5 Vertical separation distance between groundwater and a land application area must comply with the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable	No groundwater encountered
A6 Vertical separation distance between a limiting layer and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.5m if secondary treated effluent	P6 Vertical setback must be consistent with AS/NZS1547 Appendix R.	No limiting layer identified
A7 nil	P7 A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties	Consistent with P7.

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AS1547:2012 – Loading Certificate – Septic System Design

This loading certificate sets out the design criteria and the limitations associated with use of the system.

Site Address: 109 Spitfarm Road, Opossum Bay

System Capacity: 9 persons @ 120L/person/day

Summary of Design Criteria

DLR: 25L/m^2/day

Absorption area: 44m^2

Reserve area location /use: Assigned

Water saving features fitted: Standard fixtures

Allowable variation from design flows: 1 event @ 200% daily loading per quarter

Typical loading change consequences: Expected to be minimal due to capacity of system and site area (provided loading changes within 25% of design)

Overloading consequences: Continued overloading may cause hydraulic failure of the absorption area and require upgrading/extension of the area. Risk considered acceptable due to visible signs of overloading and owner monitoring.

Underloading consequences: Lower than expected flows will have minimal consequences on system operation unless the house has long periods of non occupation. Under such circumstances additional maintenance of the system may be required. Risk considered acceptable.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the absorption area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Septic tank de-sludging must also be monitored to prevent excessive sludge and scum accumulation. Monitoring and regulation by the property owner required to ensure compliance.

Other operational considerations: Owners/occupiers must be aware of the operational requirements and limitations of the system, including the following; the absorption area must not be subject to traffic by vehicles or heavy stock and should be fenced if required. The absorption area must be kept with adequate grass cover to assist in evapotranspiration of treated effluent in the absorption trenches. The septic tank must be desludged at least every 3 years, and any other infrastructure such as septic tank outlet filters must also be cleaned regularly (approx. every 6 months depending upon usage). Foreign materials such as rubbish and solid waste must be kept out of the system.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Robert Pestrucci *Owner name*
38 Meadows Place *Address*
Opossum Bay 7023 *Suburb/postcode*

Designer details:

Name: John-Paul Cumming
Category: Bld. Srvcs. Dsgnr. - Hydraulic
Business name: Geo-Environmental Solutions
Phone No: 03 6223 1839
Business address: 29 Kirksway Place
Battery Point 7004
Fax No: N/A
Licence No: CC774A
Email address: office@geosolutions.net.au

Details of the proposed work:

Owner/Applicant Robert Pestrucci
Designer's project reference No. J11926
Address: 109 Spitfarm Road
Lot No: 141046/65
Opossum Bay 7023

Type of work: Building work ☐ Plumbing work X *(X all applicable)*

Description of work:
On-site wastewater management system - design

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☐ Civil design	Civil Engineer or Civil Designer
	☒ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☒ Performance Solution: ☐ (*X the appropriate box*)

Other details:

Dual-purpose septic tank with onsite absorption

Design documents provided:

The following documents are provided with this Certificate –
Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Apr-26
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Apr-26
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Apr-26

Standards, codes or guidelines relied on in design process:

AS1547:2012 On-site domestic wastewater management.

AS3500 (Parts 0-5)-2013 Plumbing and drainage set.

Any other relevant documentation:

Geo-Environmental Assessment - 109 Spitfarm Road Opossum Bay - Apr-26

Geo-Environmental Assessment - 109 Spitfarm Road Opossum Bay - Apr-26

Attribution as designer:

I John-Paul Cumming, am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	John-Paul Cumming		27/04/2026
Licence No:	CC774A		

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

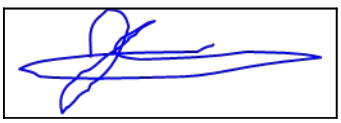
I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [x] The works will not increase the demand for water supplied by TasWater
- [x] The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- [x] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [x] The works will not damage or interfere with TasWater's works
- [x] The works will not adversely affect TasWater's operations
- [x] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [x] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [x] If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I ..... John-Paul Cumming..... being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	John-Paul Cumming		27/04/2026

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: Robert Pestrucci *Owner /Agent*
38 Meadows Place *Address*
Opossum Bay 7023 *Suburb/postcode*

Qualified person details:

Qualified person: John-Paul Cumming
Address: 29 Kirksway Place
Battery Point 7004
Phone No: 03 6223 1839
Fax No:
Licence No: AO999
Email address: jcumming@geosolutions.net.au

Qualifications and Insurance details: Certified Professional Soil Scientist (CPSS stage 2)
(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: AS2870-2011 Foundation Classification
(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 109 Spitfarm Road
Opossum Bay 7023
Lot No:
Certificate of title No: 141046/65

The assessable item related to this certificate: Classification of foundation Conditions according to AS2870-2011
(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

Certificate details:

Certificate type: Foundation Classification
(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work ☒
or
a building, temporary structure or plumbing installation: ☐

In issuing this certificate the following matters are relevant –

Documents:	The attached soil report for the address detailed above in 'details of work'
Relevant calculations:	Reference the above report.
References:	AS2870:2011 residential slabs and footings AS1726:2017 Geotechnical site investigations CSIRO Building technology file – 18.

Substance of Certificate: (what it is that is being certified)

Site Classification consistent with AS2870-2011.

Scope and/or Limitations

The classification applies to the site as inspected and does not account for future alteration to foundation conditions as a result of earth works, drainage condition changes or variations in site maintenance.

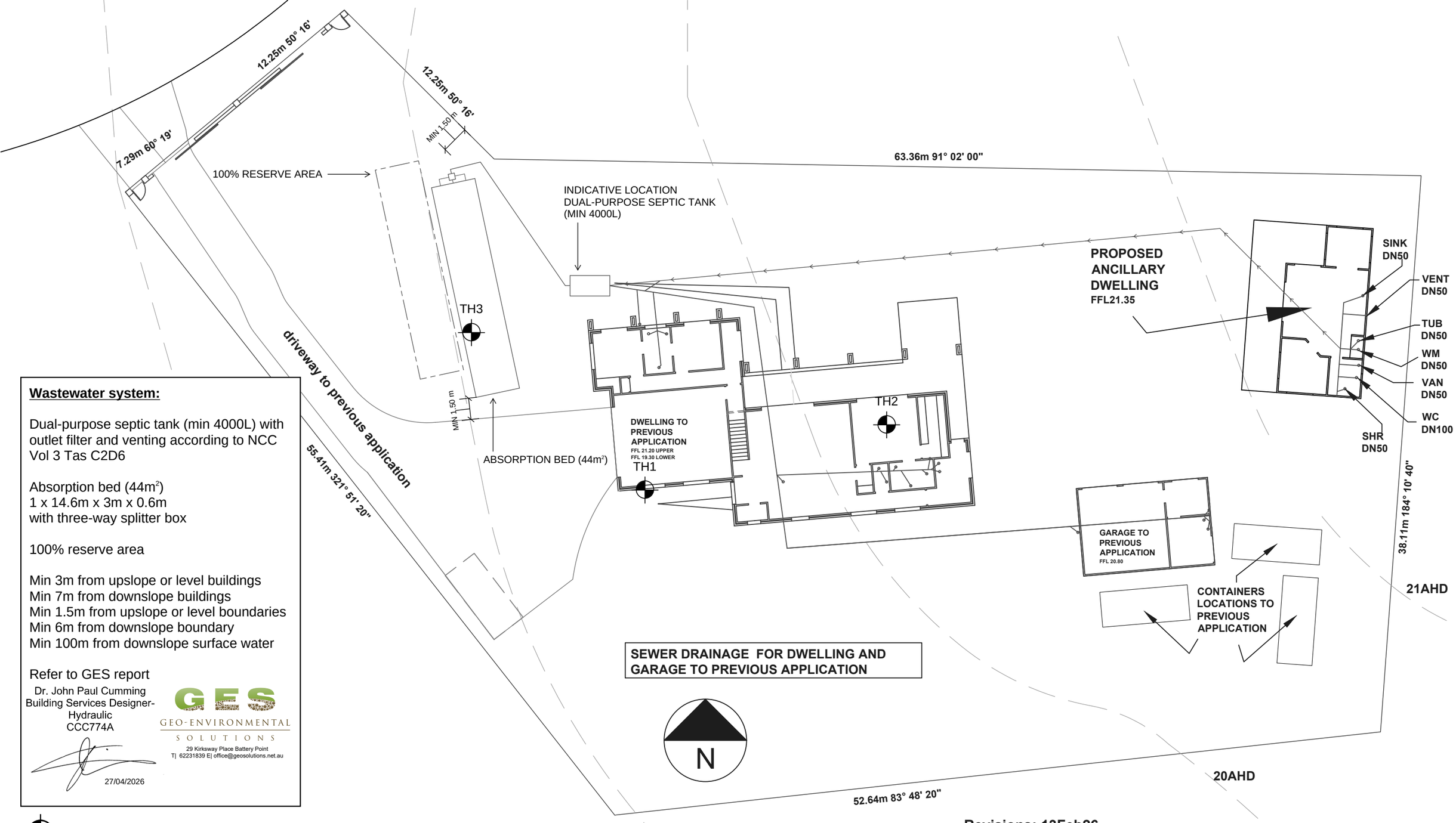
I, John-Paul Cumming certify the matters described in this certificate.

Qualified person:

Signed:

Certificate No: J11926

Date: 08/08/2025



Wastewater system:

Dual-purpose septic tank (min 4000L) with outlet filter and venting according to NCC Vol 3 Tas C2D6

Absorption bed (44m²)
1 x 14.6m x 3m x 0.6m
with three-way splitter box

100% reserve area

Min 3m from upslope or level buildings
Min 7m from downslope buildings
Min 1.5m from upslope or level boundaries
Min 6m from downslope boundary
Min 100m from downslope surface water

Refer to GES report

Dr. John Paul Cumming
Building Services Designer-
Hydraulic
CCC774A

27/04/2026

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T| 62231839 E| office@geosolutions.net.au

Approximate Test Hole Location

SEWER DRAINAGE FOR DWELLING AND GARAGE TO PREVIOUS APPLICATION

Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

SEWER DRAINAGE DESIGN SHOWN IS BASED ON GES DESIGN REPORT.
FOR FURTHER DETAILS CONSULT THEIR REPORT.
GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place, Battery Point
T| 62231839 E| office@geosolutions.net.au

SITE PLAN
SCALE 1:250
SCHEMATIC SEWER DRAINAGE

Skizze
Building Design
custom building design
PO Box 562 Swansea NSW 2281. P.0423099841
Accreditation Number CC645J

Client:
R Pestrucci

Proposed: Ancillary Dwelling

At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Drawn :RV
Date: October 2025 ©
Issue Date 09Oct25

Revisions:

Sheet :13 of 15

Design notes:

1. Absorption bed dimensions of up to 20m long by 0.6m deep by 3m wide – total storage volume calculated at average 35% porosity.
2. Base of bed to be excavated level and smearing and compaction avoided.
3. 90-100mm slotted pipe should be placed in the top 100mm of the 20mm aggregate
4. Geotextile or filter cloth to be placed over the pipe to prevent clogging of the pipes and aggregate
5. Construction on slopes up to 20% to allow trench depth range 650mm upslope edge to 450mm on down slope edge.
6. All works on site to comply with AS3500 and Tasmanian Plumbing code.

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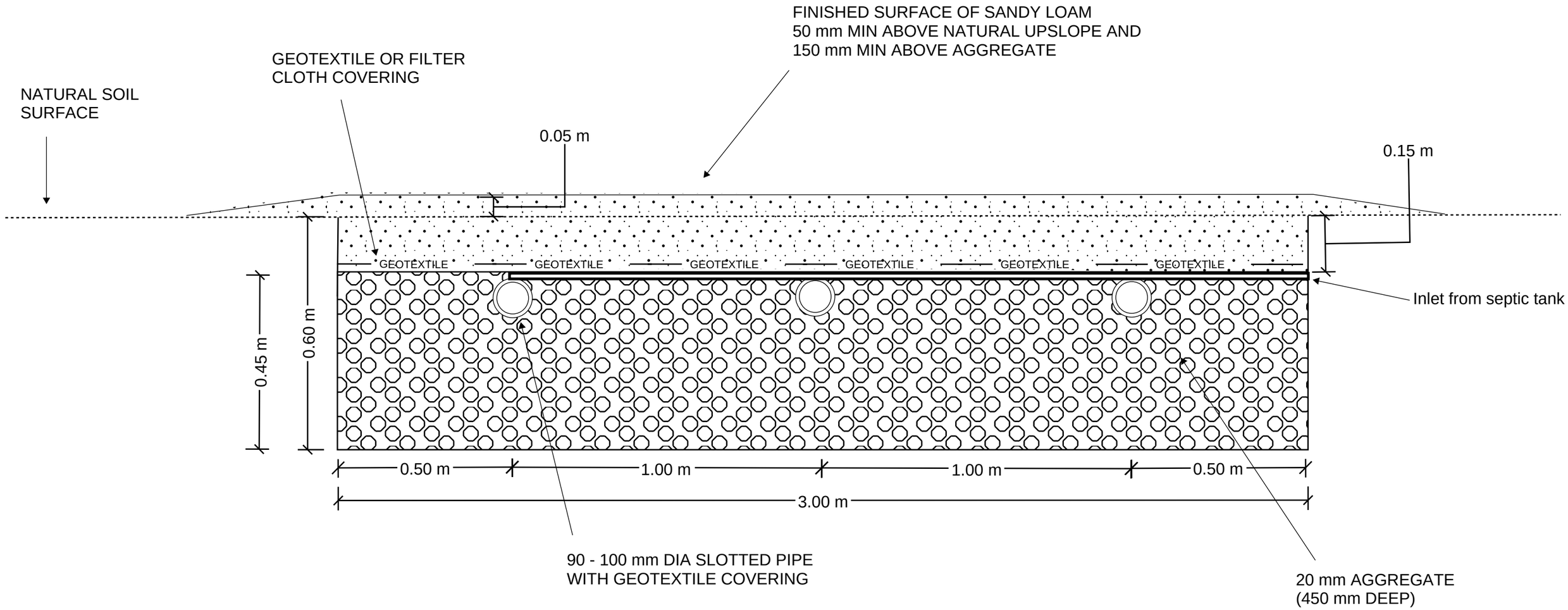

Do not scale from these drawings. Dimensions to take precedence over scale.	Geo-Environmental Solutions		Date: Jan 24	Wastewater trench 3m slotted pipe	Sheet 1 of 2

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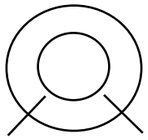
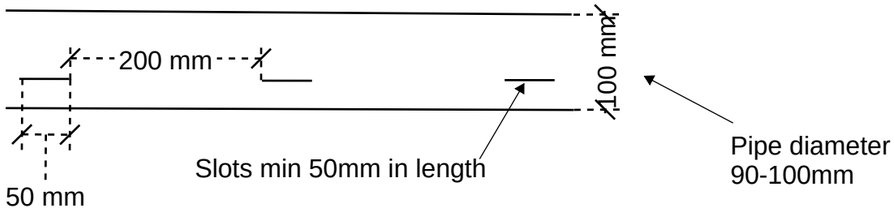
Cross section:

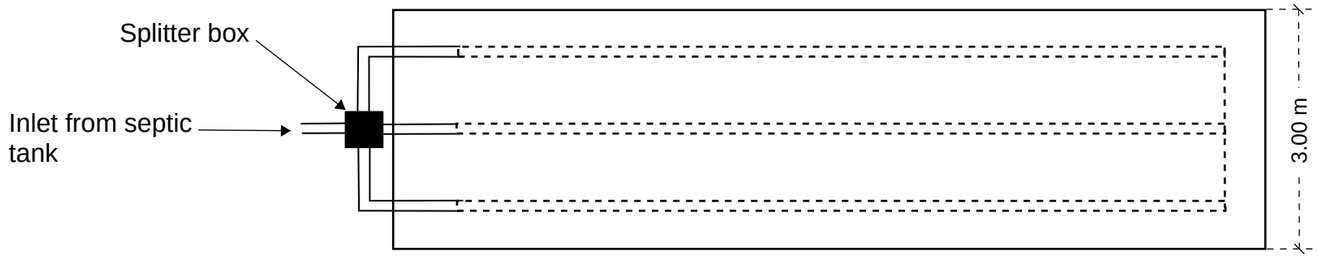
Slotted 90-100mm distribution pipe-slots at "8 and 4 O'clock "



Side View of Pipe:



Top view of Trench:



Slotted 90-100mm pvc pipe @ 0.8m spacing- connected with 90 degree corner joins- 450mm spacing from ends of trench

Do not scale from these drawings. Dimensions to take precedence over scale.				Absorption Trench Design- Slotted Pipe	Sheet 2 of 2

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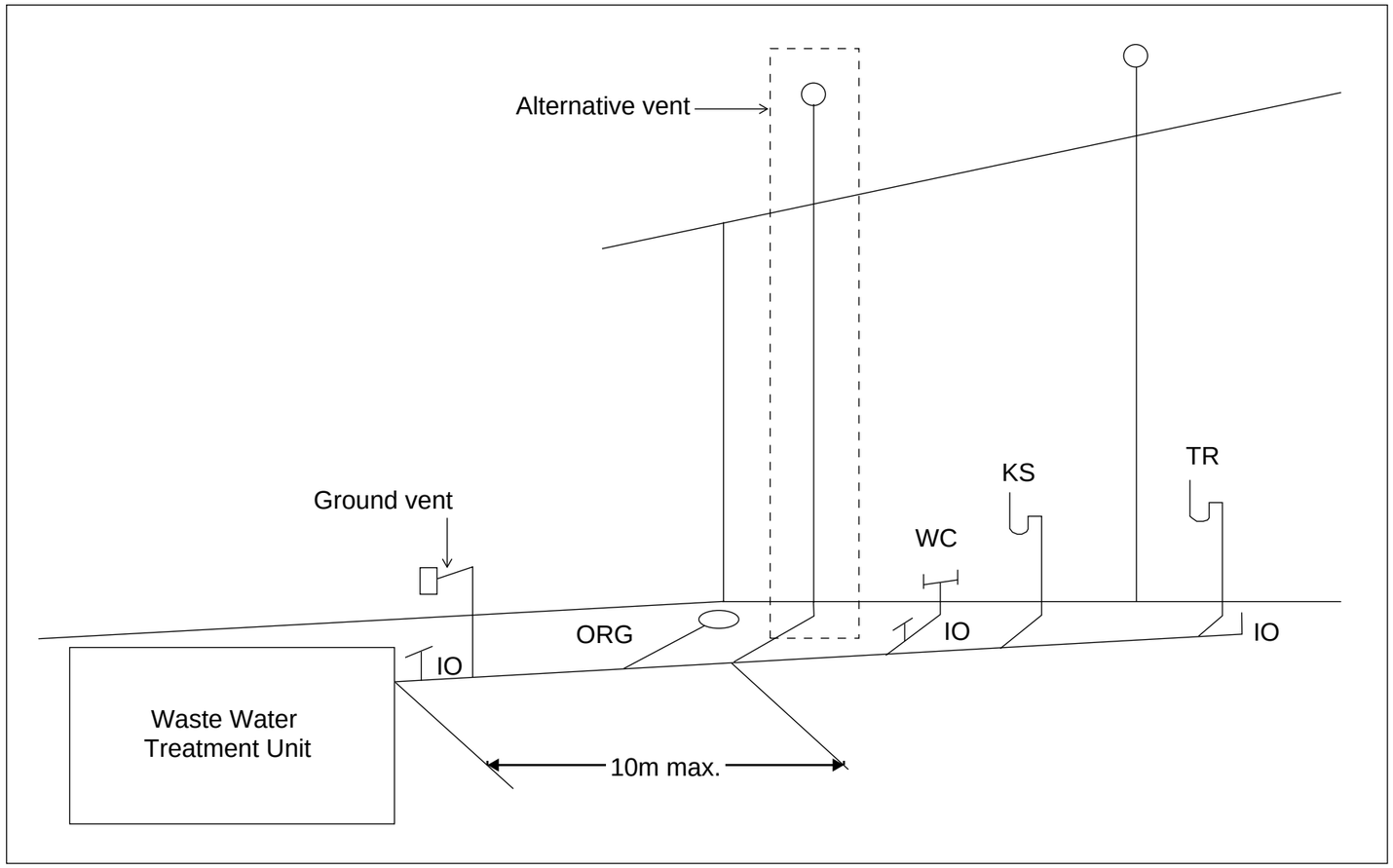


Tas Figure C2D6 Alternative Venting Arrangements

Vents must terminate in accordance with AS/NZS 3500.2

Alternative venting to be used by extending a vent to terminate as if an upstream vent, with the vent connection between the last sanitary fixture or sanitary appliance and the on-site wastewater management system. Use of a ground vent in not recommended

Inspection openings must be located at the inlet to an on-site wastewater management system treatment unit and the point of connection to the land application system and must terminate as close as practicable to the underside of an approved inspection opening cover installed at the finished surface level

Access openings providing access for desludging or maintenance of on-site wastewater management system treatment unites must terminate at or above finished surface level

Do not scale from these drawings. Dimensions to take precedence over scale.				Tas Figure C2D6 Alternative Venting Arrangements		Sheet 1 of 1

STORMWATER ASSESSMENT

109 Spitfarm Road

Opossum Bay

April 2026

Ancillary dwelling

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Robert Pestrucci
Site Address:	109 Spitfarm Road, Opossum Bay
Date of Inspection:	14/07/2025
Proposed Works:	Ancillary dwelling
Investigation Method:	Geoprobe 540UD – Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	141046/65
Title Area:	Approx. 3132m^2
Applicable Planning Overlays:	None identified
Slope & Aspect:	Flat to approx. 5% W facing slope
Vegetation:	Mixed flora

Background Information

Geology Map:	MRT 1:25 000
Geological Unit:	Quaternary sediments
Climate:	Annual rainfall approx. 550mm
Water Connection:	Tank
Sewer Connection:	Unserviced-on-site required
Testing and Classification:	Onsite stormwater

Investigation

A number of test holes were completed to identify the distribution of, and variation in soil materials on the site. See soil profile conditions presented below.

Soil Profile Summary

Hole 3 Depth (m)	Horizon	Description
0.00 – 0.30	A1	Dark Grey **SAND (SP)**: slightly moist loose consistency, single grain structure, gradual boundary to
0.30 – 1.60	A2	Light Greyish Brown **SAND (SP)**: slightly moist dense consistency, single grain structure, gradual boundary to
1.60 – 2.0+	A3	Pale Brown **SAND (SP)**: slightly moist dense consistency, single grain structure, lower boundary undefined.

Soil Conditions

The soils on site are derived from Quaternary sediments and consist of deep sandy profiles. These soils have high estimated permeability in the order of >5m/day.

GES have identified the following at the site:

- The site has a grade of <5% and presents an acceptably low risk to slope stability and landslip
- There are proposals for cuts or change of grade which may impact on any proposed onsite stormwater absorption
- The site soils have been identified as comprising of deep sandy profiles
- No evidence of a water table was observed at the time of the investigation
- There is a low risk of the natural soils being impacted by contamination
- No bedrock was encountered during investigations

Soil Dispersion

The soils on site were not identified as dispersive.

Existing Conditions and Assumptions

The site has an area of approximately 3132m^2 with a total proposed roof area of approx. 34m^2 for the ancillary dwelling with a 22m^2 concrete deck. There is no public stormwater system that the property can connect to, therefore it is proposed that stormwater from the site be routed through the proposed conventional underground drainage system comprising of Grated Sumps and PVC Pipes, coupled with tank detention and soakage trench elements for on-site detention.

The stormwater management report is prepared in accordance with the design criteria listed below:

- The stormwater drainage system is designed using Bureau of Meteorology (BOM) published rainfall Intensity Frequency Duration (IFD) data as a minor / major system to accommodate the 5% AEP / 20 min storm events.
- The flow rate of stormwater leaving the site shall be designed so that it does not exceed the pre-developed flow rate for both the minor and major rain events.
- The total site discharges are modelled as described in *Storm Drainage Design in Small Urban Catchments,* a handbook for Australian practice by *Australian Rainfall and Runoff (ARR2019)*, Book 9 – Runoff in Urban Areas.

Detention Calculations

Detention calculations area provided in Appendix A.

Summary and Conclusions

- Detention design to be adopted as per design and documentation.
- The designed solution complies with the performance solution design check carried out.
- The 6m^2 base (4m x 1.5m), 1m deep soakage trench is designed over a 20-minute storm duration and is proposed for disposal of roof flows/tank overflow.
- DN100 slotted PVC pipe with geotextile covering on top of aggregate to be installed within the soakage trench.

It is also recommended that regular inspection and maintenance is conducted to ensure the stormwater system is operating without obstruction. A schematic of recommended checks is attached.

GES Stormwater Maintenance Plan Checklist

Indicative frequency	Inspection and criteria	Maintenance activities (where required)
Annual	Check whether any tree branches overhang the roof or are likely to grow to overhang the roof	If safe and where permitted, consider pruning back any overhanging branches
	Check that access covers to storage tanks are closed	Secure any open access covers to prevent risk of entry
	Check that screens on inlets, overflows and other openings do not have holes and are securely fastened	Repair any defective screens to keep out mosquitoes
	Inspect tank water for presence of rats, birds, frogs, lizards or other vermin or insects	Remove any infestations, identify point of entry and close vermin and insect-proof mesh
	Inspect tank water for presence of mosquito larvae (inspect more frequently in sub-tropical and tropical northern Australia, based on local requirements)	Identify point of entry and close with insect-proof mesh with holes no greater than 1.6 mm in diameter
	Inspect gutters for leaf accumulation and ponding	Clean leaves from gutters-remove more regularly if required. If water is ponding, repair gutter to ensure water flows to downpipe
	Check signage at external roof water taps and that any removable handle taps are being properly used	Replace or repair the missing or damaged signage and fittings
	Check plumbing and pump connections are watertight/without leakage	Repair any leaks as necessary
	Check suction strainers, in-line strainers and pump location for debris	Clean suction strainers, in-line strainers or debris from pump location
	Check pump installation is adequate for reliable ongoing operation	Modify and repair as required
	Check first flush diverter, if present	Clean first flush diverter, repair and replace if necessary
	Check health of absorption trench area and surrounding grass or plants	Investigate any adverse impacts observed that might be due to irrigation
	Check condition of roof and coatings	Investigate and resolve any apparent changes to roof condition, such as loss of material coatings

Triennial	Drain, clean out and check the condition of the tank walls and roof to ensure no holes have arisen due to tank deterioration	Repair any tank defects
	Check sediment levels in the tank	Organise a suitable contractor to remove accumulated sediment if levels are approaching those that may block tank outlets
	Undertake a systematic review of operational control of risks to the system	Identify the reason for any problems during inspections and take actions to prevent failures occurring in future
After 20 years and then every 5 years	Monitor the effectiveness of the stormwater absorption area to assess for any clogging due to algal growth, or blocking due to tree roots/grass growth/trench failure.	Clean or replace clogged equipment
Ongoing	Inspect and follow up on any complaints or concerns raised that could indicate problems with the system	Repair or replace any problems that are notified

APPENDIX A: STORMWATER DETENTION CALCULATIONS

STORAGE TRENCH

Hydrology		
Total Catchment Area	106	m2
Runoff Coefficient	0.979	
Annunal Recurrence Interval (ARI)	20	yr
Ground Conditions		
Hydraulic conductivity (K)	5	m/day
	3.470	mm/min
Adjusted Rate (15% clogging factor)	2.950	mm/min
Trench Design		
Length	4	m
Width	1.5	m
Depth	1	m
Infiltration Area	6	m2
Porosity	0.35	%
Trench Storage	2.10	m3
	2100	L

Final Check			
Criteria	**Requirement**	**Design**	**Check**
Detention reqd	1610	2100	OK

STORM CHECK					
Storm Duration	**Intensity**	**Inflow Volume**	**Outflow Volume**	**Required Storage**	**Emptying time**
	(mm/hr)	**(m^3)**	**(L)**	**(L)**	**(hr)**
1 min	**138**	239	18	221	0.21
2 min	**108**	374	35	338	0.32
3 min	**98.1**	509	53	456	0.43
4 min	**90.7**	627	71	557	0.52
5 min	**84.7**	732	88	644	0.61
10 min	**64**	1107	177	930	0.88
15 min	**51.9**	1346	265	1081	1.02
20 min	**44.1**	1525	354	1172	1.10
25 min	**38.7**	1673	442	1231	1.16
30 min	**34.6**	1795	531	1264	1.19
45 min	**27**	2101	796	1305	1.23
1 hour	**22.6**	2345	1062	1283	1.21
1.5 hour	**17.8**	2771	1593	1178	1.11
2 hour	**15.2**	3155	2124	1031	0.97
3 hour	**12.3**	3829	3185	644	0.61
4.5 hour	**10**	4670	4778	-	-
6 hour	**8.78**	5467	6371	-	-
9 hour	**7.26**	6781	9556	-	-
12 hour	**6.33**	7883	12742	-	-
18 hour	**5.13**	9582	19113	-	-
24 hour	**4.36**	10859	25484	-	-
30 hour	**3.79**	11799	31855	-	-
36 hour	**3.35**	12515	38226	-	-
48 hour	**2.71**	13499	50967	-	-
72 hour	**1.93**	14	2920	-	-
			Full volume	2100	1.23
Notes:					
Inflow volume calculated using Equation 10.1 (WSUD Guidelines: Chapter 10)					
Outflow volume calculated using Equation 10.2 (WSUD Guidelines: Chapter 10)					
Required storage and emptying time is left blank when outflow volume exceeds inflow volume					

Location

Label: 109 Spitfarm Road, Opossum Bay
Easting: 533078
Northing: 5240664
Zone: 55
Latitude: Nearest grid cell: 42.9875 (S)
Longitude: Nearest grid cell: 147.4125 (E)

IFD Design Rainfall Intensity (mm/h)

Issued: 08 August 2025

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).
FAQ for New ARR probability terminology

Table | Chart | Coefficients

Unit: mm/h

	Annual Exceedance Probability (AEP)						
Duration	**63.2%**	**50%#**	**20%***	**10%**	**5%**	**2%**	**1%**
1 min	61.6	69.8	97.1	117	138	169	194
2 min	52.5	59.0	79.7	94.1	108	126	140
3 min	46.6	52.4	71.3	84.6	98.1	115	129
4 min	42.1	47.5	65.1	77.8	90.7	108	122
5 min	38.5	43.5	60.1	72.2	84.7	102	116
10 min	28.0	31.7	44.4	53.9	64.0	78.7	90.9
15 min	22.7	25.7	36.0	43.7	51.9	64.0	74.1
20 min	19.4	21.9	30.7	37.2	44.1	54.2	62.6
25 min	17.1	19.4	27.0	32.7	38.7	47.3	54.4
30 min	15.5	17.5	24.3	29.3	34.6	42.1	48.3
45 min	12.3	13.9	19.2	23.0	27.0	32.4	36.9
1 hour	10.5	11.9	16.3	19.4	22.6	27.0	30.4
1.5 hour	8.47	9.55	13.0	15.4	17.8	21.0	23.5
2 hour	7.27	8.21	11.2	13.2	15.2	17.8	19.8
3 hour	5.89	6.67	9.09	10.7	12.3	14.3	15.8
4.5 hour	4.78	5.44	7.45	8.78	10.0	11.7	13.0
6 hour	4.12	4.70	6.49	7.66	8.78	10.3	11.4
9 hour	3.32	3.81	5.32	6.31	7.26	8.56	9.53
12 hour	2.83	3.26	4.59	5.47	6.33	7.50	8.39
18 hour	2.22	2.57	3.66	4.41	5.13	6.15	6.93
24 hour	1.84	2.14	3.08	3.72	4.36	5.25	5.94
30 hour	1.58	1.84	2.65	3.22	3.79	4.58	5.20
36 hour	1.39	1.61	2.34	2.84	3.35	4.05	4.61
48 hour	1.12	1.30	1.88	2.29	2.71	3.28	3.74
72 hour	0.807	0.934	1.35	1.64	1.93	2.34	2.66
96 hour	0.634	0.731	1.05	1.27	1.49	1.79	2.03
120 hour	0.524	0.603	0.854	1.03	1.20	1.44	1.63
144 hour	0.449	0.515	0.724	0.865	1.00	1.20	1.36
168 hour	0.395	0.453	0.630	0.749	0.863	1.04	1.17

Note:
The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.
* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.

STORMWATER DETENTION V5.05

Geo-Environmental Solutions

Location: **Opossum Bay, TAS**
Site: **106m² with tc = 20 and tcs = 15 mins.**
PSD: **AEP of 5%, Underground rectangular tank PSD = 0.39L/s**
Storage: **AEP of 5%, Underground rectangular tank volume = 1.61m³**

Design Criteria

(Custom AEP IFD data used)

Location = Opossum Bay, TAS
Method = E (A)RI 2001,A(E)P 2019

PSD annual exceedance probabiliy (APE) = 5 %
Storage annual exceedance probabiliy (APE) = 5 %

Storage method = U (A)bove,(P)ipe,(U)nderground,(C)ustom

Site Geometry

Site area (As) = 106 m² = 0.0106 Ha
Pre-development coefficient (Cp) = 0.30
Post development coefficient (Cw) = 0.98

Total catchment (tc) = 20 minutes
Upstream catchment to site (tcs) = 15 minutes

Coefficient Calculations

Pre-development

Zone	Area (m²)	C	Area * C
Concrete	0	0.90	0
Roof	0	1.00	0
Gravel	0	0.50	0
Garden	106	0.30	32
Total	106 m²		32

Cp = ΣArea*C/Total = 0.300

Post development

Zone	Area (m²)	C	Area * C
Concrete	22	0.90	20
Roof	84	1.00	84
Gravel	0	0.50	0
Garden	0	0.30	0
Total	106 m²		104

Cw = ΣArea*C/Total = 0.979

Permissible Site Discharge (PSD) (AEP of 5%)

PSD Intensity (I) = 44.1 mm/hr For catchment tc = 20 mins.
Pre-development (Qp = Cp*I*As/0.36) = 0.39 L/s
Peak post development (Qa = 2*Cw*I*As/0.36) = 2.54 L/s =(0.058 x I) Eq. 2.24

Storage method = U (A)bove,(P)ipe,(U)nderground,(C)ustom
Permissible site discharge (Qu = PSD) = 0.391 L/s

Above ground - Eq 3.8

$0 = PSD^2 - 2*Qa/tc*(0.667*tc*Qp/Qa + 0.75*tc+0.25*tcs)*PSD + 2*Qa*Qp$

Taking x as = PSD and solving
a = 1.0 b = -5.3 c = 2.0
PSD = $-b \pm \sqrt{(b^2-4ac)}/(2a)$
PSD = 0.406 L/s

Below ground pipe - Eq 3.3

$Qp = PSD*[1.6*tcs/\{tc*(1-2*PSD/(3*Qa))\}-0.6*tcs^{2\cdot67}/\{tc*(1-2*PSDp/(3*Qa))\}^{2\cdot67}]$
= 0.39
PSD = 0.403 L/s

Below ground rectangular tank - Eq 3.4

t =tcs/(tc*(1-2*PSD/(3*Qa))) = 0.836
$Qp = PSD*[0.005-0.455*t+5.228*t^2-1.045*t^3-7.199*t^4+4.519*t^5]$
= 0.39
PSD = 0.391 L/s

Design Storage Capacity (AEP of 5%)

Above ground (Vs) = $[0.5*Qa*td-[(0.875*PSD*td)(1-0.917*PSD/Qa)+(0.427*td*PSD^2/Qa)]]*60/10^3$ m^3 Eq 4.23

Below ground pipe (Vs) = $[(0.5*Qa-0.637*PSD+0.089*PSD^2/Qa)*td]*60/10^3$ m^3 Eq 4.8

Below ground rect. tank (Vs) = $[(0.5*Qa-0.572*PSD+0.048*PSD^2/Qa)*td]*60/10^3$ m^3 Eq 4.13

td (mins)	I (mm/hr)	Qa (L/s)	Above Vs (m^3)	Pipe Vs (m^3)	B/G Vs (m^3)
5	84.7	4.9			0.67
29	35.3	2.0			1.39
41	28.6	1.6			1.49
53	24.4	1.4			1.54
65	21.6	1.2			1.57
77	19.5	1.1			1.59
89	17.9	1.0			1.60
101	16.7	1.0			1.61
113	15.7	0.9			1.60
125	14.8	0.9			1.60

Table 1 - Storage as function of time for AEP of 5%

Type	td (mins)	I (mm/hr)	Qa (L/s)	Vs (m^3)
Above				
Pipe				
B/ground	99.7	16.8	1.0	**1.61**

Table 2 - Storage requirements for AEP of 5%

Frequency of operation of Above Ground storage

Qop2 = 0.75 Cl 2.4.5.1

Qp2 =Qop2*Qp1 (where Qp1=PSD) = 0.30 L/s at which time above ground storage occurs

I = $360*Qp2/(2*Cw*As*10^3)$ = 5.3 mm/h Eq 4.24

Period of Storage

Time to Fill:

Above ground (tf) = $td*(1-0.92*PSD/Qa)$ Eq 4.27

Below ground pipe (tf) = $td*(1-2*PSD/(3*Qa))$ Eq 3.2

Below ground rect. tank (tf) = $td*(1-2*PSD/(3*Qa))$ Eq 3.2

Time to empty:

Above ground (te) = $(Vs+0.33*PSD^2*td/Qa*60/10^3)*(1.14/PSD)*(10^3/60)$ Eq 4.28

Below ground pipe (te) = $1.464/PSD*(Vs+0.333*PSD^2*td/Qa*60/10^3)*(10^3/60)$ Eq 4.32

Below ground rect. tank (te) = $2.653/PSD*(Vs+0.333*PSD^2*td/Qa*60/10^3)*(10^3/60)$ Eq 4.36

Storage period (Ps = tf + te) Eq 4.26

Type	td (mins)	Qa (L/s)	Vs (L/s)	tf (mins)	te (mins)	Ps (mins)
Above						
Pipe						
B/ground	99.7	1.0	1.6	72.9	217.2	290.0

Table 3 - Period of Storage requirements for AEP of 5%

Orifice

Permissible site discharge (Qu=PSD) = 0.39 L/s (Underground storage)

Orifice coefficient (CD) = 0.61 For sharp circular orifice

Gravitational acceration (g) = 9.81 m/s^2

Maximum storage depth above orifice (H) = 40 mm

Orifice flow (Q) = $CD*Ao*\sqrt{(2*g*H)}$

Therefore:

Orifice area (Ao) = 724 mm^2

Orifice diameter ($D = \sqrt{(4*Ao/\pi)}$) = 30.4 mm

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Robert Pestrucci *Owner name*
38 Meadows Place *Address*
Opossum Bay 7023 *Suburb/postcode*

Designer details:

Name: Vinamra Gupta
Category: Civil Engineer
Business name: Geo-Environmental Solutions
Phone No: 03 6223 1839
Business address: 29 Kirksway Place
Battery Point 7004
Fax No: N/A
Licence No: 685982720
Email address: office@geosolutions.net.au

Details of the proposed work:

Owner/Applicant Robert Pestrucci
Designer's project reference No. J11926
Address: 109 Spitfarm Road
Lot No: 141046/65
Opossum Bay 7023

Type of work: Building work ☐ Plumbing work ☒ *(X all applicable)*

Description of work:
On-Site stormwater system - design

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☒ Civil design	Civil Engineer or Civil Designer
	☐ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☐ Performance Solution: ☒ *(X the appropriate box)*

Other details:

Onsite stormwater design - ancillary dwelling

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Apr-26
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Apr-26
Computations:	Prepared by:	Date:
Performance solution proposals: Onsite stormwater retention	Prepared by: Geo-Environmental Solutions	Date: Apr-26
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Apr-26

Standards, codes or guidelines relied on in design process:

AS3500 (Parts 0-5)-2013 Plumbing and drainage set.

Any other relevant documentation:

Stormwater Assessment - 109 Spitfarm Road Opossum Bay - Apr-26

Attribution as designer:

I Vinamra Gupta, am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	Vinamra Gupta		27/04/2026
Licence No:	685982720		

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

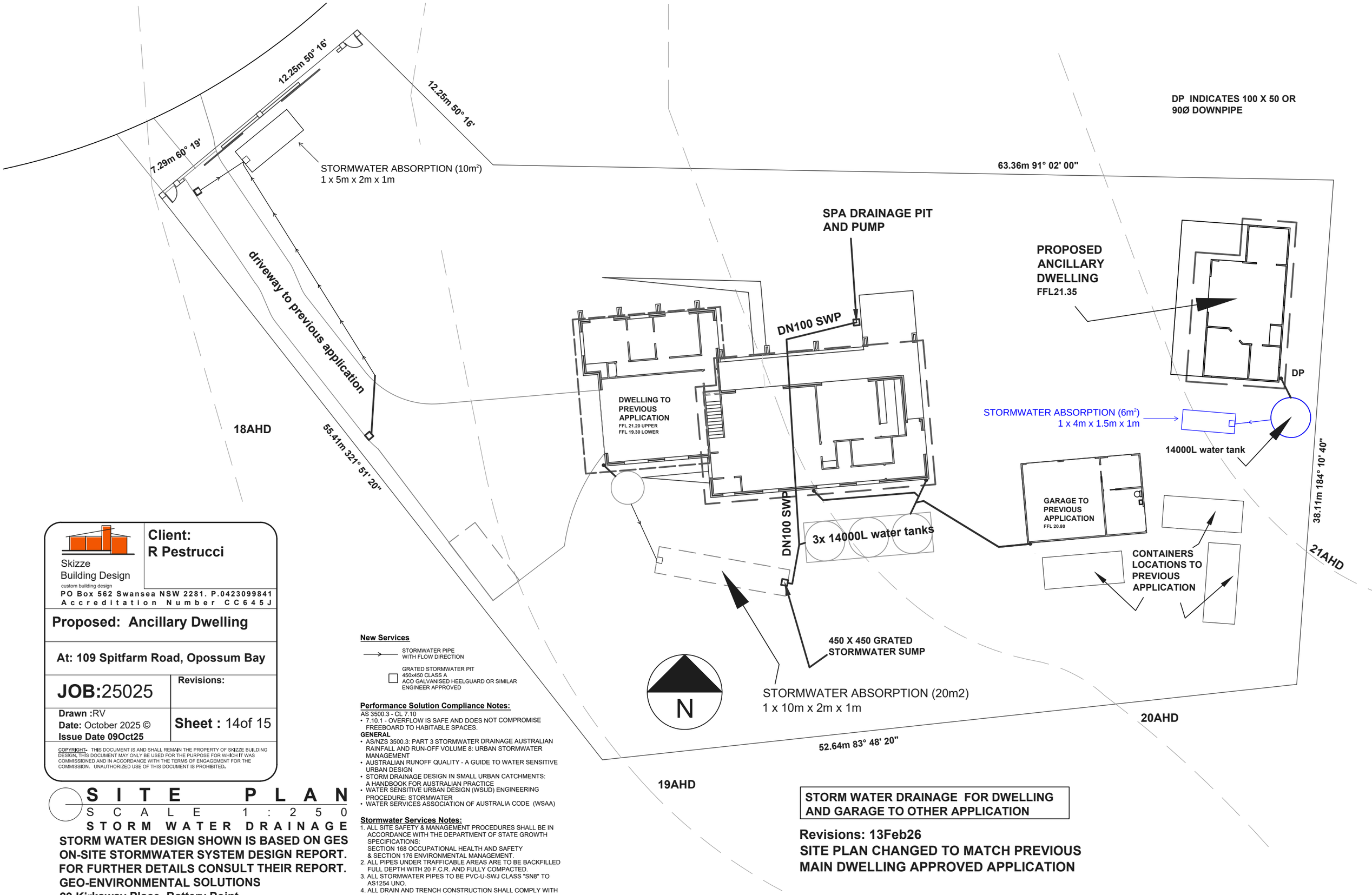
- [x] The works will not increase the demand for water supplied by TasWater
- [x] The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- [x] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [x] The works will not damage or interfere with TasWater's works
- [x] The works will not adversely affect TasWater's operations
- [x] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [x] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [x] If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I ..... Vinamra Gupta..... being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	Vinamra Gupta		27/04/2026



Skizze
Building Design
custom building design

Client:
R Pestrucci

PO Box 562 Swansea NSW 2281. P.0423099841
Accreditation Number CC645J

Proposed: Ancillary Dwelling

At: 109 Spitfarm Road, Opossum Bay

JOB:25025

Revisions:

Drawn :RV
Date: October 2025 ©
Issue Date 09Oct25

Sheet : 14of 15

S I T E P L A N

S C A L E 1 : 2 5 0

S T O R M W A T E R D R A I N A G E

STORM WATER DESIGN SHOWN IS BASED ON GES ON-SITE STORMWATER SYSTEM DESIGN REPORT. FOR FURTHER DETAILS CONSULT THEIR REPORT.
GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place, Battery Point
T| 62231839 E| office@geosolutions.net.au

New Services

STORMWATER PIPE
WITH FLOW DIRECTION

GRATED STORMWATER PIT
450x450 CLASS A
ACO GALVANISED HEELGUARD OR SIMILAR
ENGINEER APPROVED

Performance Solution Compliance Notes:

AS 3500.3 - CL 7.10
- 7.10.1 - OVERFLOW IS SAFE AND DOES NOT COMPROMISE FREEBOARD TO HABITABLE SPACES.

GENERAL
- AS/NZS 3500.3: PART 3 STORMWATER DRAINAGE AUSTRALIAN RAINFALL AND RUN-OFF VOLUME 8: URBAN STORMWATER MANAGEMENT
- AUSTRALIAN RUNOFF QUALITY - A GUIDE TO WATER SENSITIVE URBAN DESIGN
- STORM DRAINAGE DESIGN IN SMALL URBAN CATCHMENTS: A HANDBOOK FOR AUSTRALIAN PRACTICE
- WATER SENSITIVE URBAN DESIGN (WSUD) ENGINEERING PROCEDURE: STORMWATER
- WATER SERVICES ASSOCIATION OF AUSTRALIA CODE (WSAA)

Stormwater Services Notes:

1. ALL SITE SAFETY & MANAGEMENT PROCEDURES SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS:
   SECTION 168 OCCUPATIONAL HEALTH AND SAFETY
   & SECTION 176 ENVIRONMENTAL MANAGEMENT.
2. ALL PIPES UNDER TRAFFICABLE AREAS ARE TO BE BACKFILLED FULL DEPTH WITH 20 F.C.R. AND FULLY COMPACTED.
3. ALL STORMWATER PIPES TO BE PVC-U-SWJ CLASS "SN8" TO AS1254 UNO.
4. ALL DRAIN AND TRENCH CONSTRUCTION SHALL COMPLY WITH THE LGAT STANDARD DRG TSD G01.
5. ANY EXCAVATED TRENCHES IN EXCESS OF 1.5M IN DEPTH ARE TO BE ADEQUATELY SHORED TO PREVENT COLLAPSE DURING WORKS.

STORM WATER DRAINAGE FOR DWELLING AND GARAGE TO OTHER APPLICATION

Revisions: 13Feb26
SITE PLAN CHANGED TO MATCH PREVIOUS MAIN DWELLING APPROVED APPLICATION

Design notes:

1.Absorption trench dimensions of up to 20m long by 1.0m deep by 1.5m wide
– total storage volume calculated at average 35% porosity.
2.Base of trenches to be excavated level and smearing and compaction avoided.
3.90-100mm slotted pipe should be placed in the top 100mm of the 20mm aggregate
4.Geotextile or filter cloth to be placed over the pipe to prevent clogging of the pipes and aggregate
5.All works on site to comply with AS3500 and Tasmanian Plumbing code.

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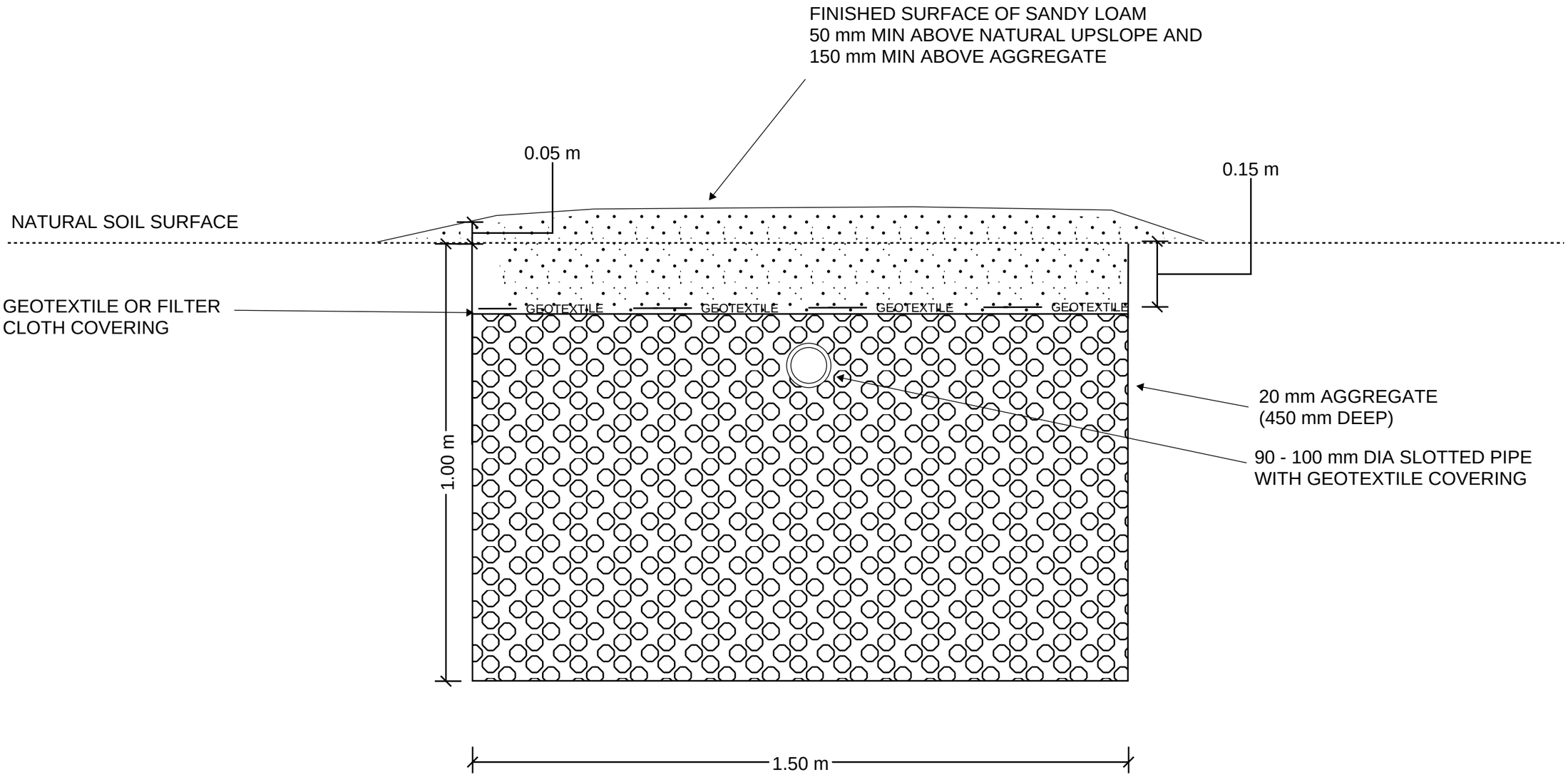

Do not scale from these drawings. Dimensions to take precedence over scale.	Geo-Environmental Solutions			Stormwater Trench Detail	Sheet 1 of 1