



# Application for Planning Approval

## *Land Use Planning and Approvals Act 1993*

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APPLICATION NO.

**SA2022/054**

LOCATION OF AFFECTED AREA

**2 JORDAN DOWNS DRIVE, BRIGHTON**

DESCRIPTION OF DEVELOPMENT PROPOSAL

**SUBDIVISION (2 LOTS)**

A COPY OF THE DEVELOPMENT APPLICATION MAY BE VIEWED AT [www.brighton.tas.gov.au](http://www.brighton.tas.gov.au) AND AT THE COUNCIL OFFICES, 1 TIVOLI ROAD, OLD BEACH, BETWEEN 8:15 A.M. AND 4:45 P.M., MONDAY TO FRIDAY OR VIA THE QR CODE BELOW. ANY PERSON MAY MAKE WRITTEN REPRESENTATIONS CONCERNING AN APPLICATION UNTIL 4:45 P.M. ON **29/08/2023**. ADDRESSED TO THE GENERAL MANAGER AT 1 TIVOLI ROAD, OLD BEACH, 7017 OR BY EMAIL AT [development@brighton.tas.gov.au](mailto:development@brighton.tas.gov.au).

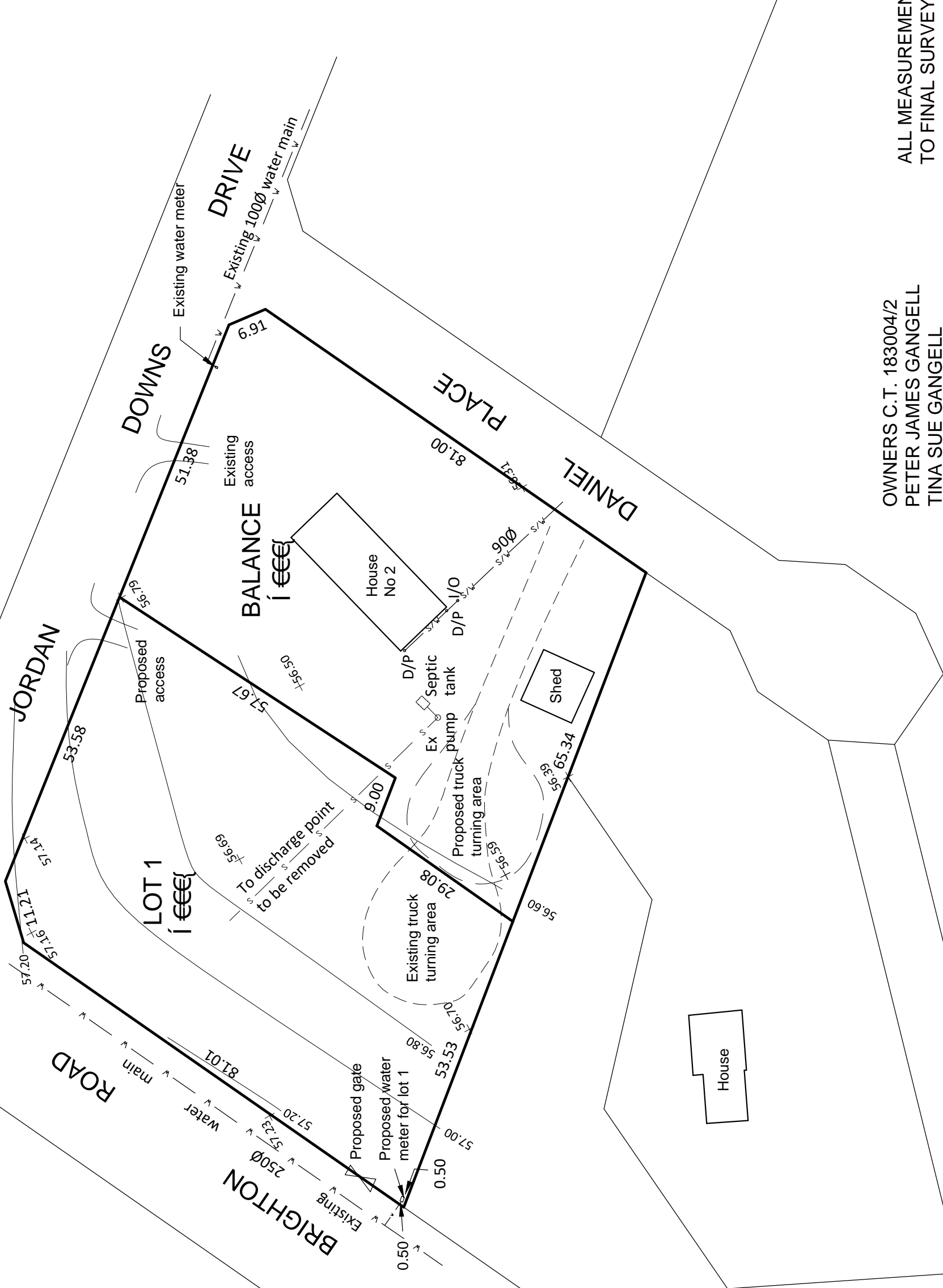
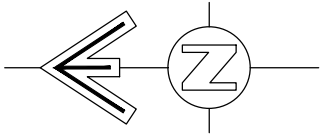
REPRESENTATIONS SHOULD INCLUDE A DAYTIME TELEPHONE NUMBER TO ALLOW COUNCIL OFFICERS TO DISCUSS, IF NECESSARY, ANY MATTERS RAISED.

**JANINE BANKS**  
**ACTING General Manager**



**Brighton**  
going places

NOTES:-  
1. LEVELS ON AHD.  
2. CONTOUR INTERVAL 0.20m



OWNERS C.T. 183004/2  
PETER JAMES GANGELL  
TINA SUE GANGELL

ALL MEASUREMENTS SUBJECT  
TO FINAL SURVEY.

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WRITTEN PERMISSION OF  
TONY WOOLFORD

PROPOSED SUBDIVISION  
2 JORDAN DOWNS DRIVE  
BRIGHTON

SCALE 1: 750 (A3) DATE: JUNE 2023 DRAWN: IDS/TNW DWG NO. D2082-1

T. N. WOOLFORD & ASSOCIATES  
LAND & ENGINEERING SURVEYORS  
72 GRAHAMS RD, MT. RUMNEY  
Phone (03) 6248 5224 m: 0418 248 569  
e: tnwoolford@tassie.net.au

ROCK SOLID GEOTECHNICS PTY LTD

18/5/2023

CLIENT:

Mr Peter Gangell  
[pjgangell@outlook.com](mailto:pjgangell@outlook.com)

0418122191

Peter Hofto

163 Orielson Road

ORIELTON

TAS 7172

0417 960 769

[peter@rocksolidgeotechnics.com.au](mailto:peter@rocksolidgeotechnics.com.au)

**Geotechnical Assessment** - Subdivision of Land at 2 Jordon Downs Drive, Brighton

This report assesses the onsite wastewater potential of the land designated for a subdivision at 2 Jordon Downs Drive, Brighton. Mr Peter Gangell has proposed a two-lot subdivision of the property (Figure 1).

It is proposed to subdivide the land into two blocks.

Lot 1	5000m <sup>2</sup>	Plate 1
Balance of Land Lot	5000m <sup>2</sup>	Residence block (Plate 2)

The Brighton Council have requested the following;

- Please provide a wastewater report, prepared by a suitably qualified person, demonstrating that the wastewater treatment system for the existing house on the balance lot will be fully contained within the boundaries of this lot and that lot 2 can accommodate a wastewater treatment system.
- Demonstrate compliance with Clause 11.5.3 A2 of the *Tasmanian Planning Scheme – Brighton 2022*.
  - As the lots will not be connected to a reticulated sewage system, compliance will be under the Performance Criteria P2, which states;
  - Each Lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.

For this report, it is reasonable to assume that a likely future use of proposed Lot 1 is the development of a three-bedroom residence and associated infrastructure.

Both of the proposed Lots can sustain an onsite wastewater system for a single, three-bedroom dwelling.

## INVESTIGATION

A field survey was completed in the presence of Mr Peter Gangell on Thursday 20 April, 2023, encompassing field mapping of geological and geomorphological features and hazards to assess the site for onsite wastewater disposal potential.

Test holes were completed on both proposed Lots utilising a 4WD mounted SAMPLA25 mechanical auger with 100mm diameter solid flight augers. The locations of the Test Holes are marked on [Figure 1](#).

The 1:25000 Mines Department Digital Geological Map 'Tea Tree' indicates that the site is underlain by Tertiary basalt

The land designated for subdivision lies on the southeastern corner of Midland Highway and Jordon Downs Drive. Both lots (Lots 1 & Balance Lot) will be accessed from Jordon Downs Drive.

### Lot 1 - 5000m<sup>2</sup>

Lot 1 lies on the southeastern corner of Midland Highway and Jordon Downs Drive. The block generally slopes at 1 degree to the east ([Plate 1](#)). The block is covered in grass, and minor shrubs and trees.

The profile encountered in [Test Hole 1B](#) consisted of;

0.00 – 0.20m	SAND: fine grained, greyish brown, roots & rootlets - TOPSOIL
0.20 – 0.55m	sandy CLAY: medium plasticity, brown / light brown, 35-40% fine to medium grained sand, moist
0.55 – 1.20m	sandy CLAY: medium to high plasticity, olive brown, 25% fine to medium grained sand, moist
1.20 – 1.45m	gravelly SAND: fine to coarse grained, greyish brown, 25% fine to medium angular basalt gravel, dry – EXTREMELY WEATHERED BASALT
1.45m+	Mechanical auger refusal on basalt bedrock

[Test Hole 1A](#) encountered a similar upper profile but with mechanical auger refusal on basalt bedrock at 1.0m depth.

Groundwater was not encountered in either test hole.

The site is classified as CLASS 5 – light CLAY (AS1547) w.r.t. onsite wastewater disposal.

Lot 1 will require the utilisation of secondary treated wastewater effluent, most probably an Aerated Wastewater Treatment System (AWTS), preferably with a shallow sub-surface irrigation Land Application Area (LAA).



The size of the Land Application Area (LAA) / subsurface irrigation zone is conditional on the potential wastewater load entering the system and the permeability of the site. The potential wastewater load is determined by the number of bedrooms in the dwelling (as mentioned above this assessment is based on ensuring that each of the proposed blocks can sustain a residence with a minimum of three bedrooms).

A Design Irrigation Rate (DIR) of 3mm/day is appropriate (Class 5 light CLAY site).

3-bedroom residence	5 persons occupancy	
Reticulated water	150 litres/person/day	
Wastewater Load	5 x 150 litres/person/day	750 litres/day
Design Irrigation Rate (DIR)	3mm/day	Secondary treated effluent
Irrigation Area	$750 / 3 = 250\text{m}^2$	

Calculated size of the required wastewater LAA =  $250\text{m}^2$ .

It is also prudent to note that any onsite wastewater system must be installed in accordance with the *2016 Director's Guidelines for Onsite Wastewater*. The Director's compliance Table part 7 (Standards for Wastewater Land Application Areas) defines certain criteria that must be complied with when installing an onsite wastewater Land Application Area (LAA). Specifically critical to this site Criteria A3 states;

<p><b>A3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with either of the following:</p> <p>(a) be no less than 40m from a property boundary; or</p> <p>(b) be no less than:</p> <p>(i) 1.5m from an upslope or level property boundary; &amp;</p> <p>(ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or</p> <p>(iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.</p>	<p><b>P3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with all of the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.</p>	<p>Complies with A3</p>
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Lot 1 can comply with A3, with the following boundary setbacks;

Secondary treated effluent

1° slope to eastern property boundary

Setback required from lower-slope property boundary:  $1.5\text{m} + (1\text{m} \times 1^\circ) = 2.5\text{m}$

Setbacks of the LAA of  $1.5\text{m}$  are also required for the upslope and side-slope property boundaries.

Proposed Lot 1 has suitable area for a  $250\text{m}^2$  LAA.

Plate 1 – Lot 1. Test Hole #1A - Looking to the west.



#### Balance of Land Lot

The current 4-bedroom residence will be retained on the Balance of Land portion of the property. The residence is currently serviced with an onsite wastewater system consisting of;

- Blackwater collected in a septic tank. Effluent discharges to a sump tank fitted with a submersible pump. Effluent is pumped to a trench / bed sited to the west of the residence (on proposed Lot 1).
- Greywater effluent is collected in a sump tank fitted with a submersible pump. Greywater discharges to movable surface pipe (on proposed Balance of Land Lot).

The blackwater trench / bed will be impacted by the proposed subdivision, so the current onsite wastewater system will need to be changed.

It is proposed to decommission and replace the current system. The new, proposed system design is the subject of the accompanying Onsite Wastewater Assessment / System Design ([GEOTECH 23-053](#)).



The Balance of Land Lot generally slopes at 1 degree to the east. The block is covered in grass, and minor shrubs and trees.

The profiles encountered in Test Holes 2A & 2B consisted of;

0.00 – 0.20m	SAND: fine grained, greyish brown, roots & rootlets - TOPSOIL
0.20 – 0.85m	sandy CLAY: medium plasticity, brown / light brown, 35-40% fine to medium grained sand, moist
0.85 – 1.05m	gravelly SAND: fine to coarse grained, greyish brown, 25% fine to medium angular basalt gravel, dry – EXTREMELY WEATHERED BASALT
1.05m+	Mechanical auger refusal on basalt bedrock

Groundwater was not encountered in either test hole.

The site is classified as CLASS 5 – light CLAY (AS1547) w.r.t. onsite wastewater disposal.

The Balance of Land Lot will require the utilisation of secondary treated wastewater effluent, most probably an Aerated Wastewater Treatment System (AWTS), preferably with a shallow sub-surface irrigation Land Application Area (LAA).

The size of the Land Application Area (LAA) / subsurface irrigation zone is conditional on the potential wastewater load entering the system and the permeability of the site. The potential wastewater load is determined by the number of bedrooms in the dwelling (as mentioned above this assessment is based on ensuring that each of the proposed blocks can sustain a residence with a minimum of three bedrooms).

A Design Irrigation Rate (DIR) of 3mm/day is appropriate (Class 5 light CLAY site).

4-bedroom residence	6 persons occupancy	
Reticulated water	150 litres/person/day	
Wastewater Load	6 x 150 litres/person/day	900 litres/day
Design Irrigation Rate (DIR)	3mm/day	Secondary treated effluent
Irrigation Area	900 / 3 = 300m <sup>2</sup>	

Calculated size of the required wastewater LAA = 300m<sup>2</sup>.

It is also prudent to note that any onsite wastewater system must be installed in accordance with the *2016 Director's Guidelines for Onsite Wastewater*. The Director's compliance Table part 7 (Standards for Wastewater Land Application Areas) defines certain criteria that must be complied with when installing an onsite wastewater Land Application Area (LAA). Specifically critical to this site Criteria A3 states;

<p><b>A3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with either of the following:</p> <p>(a) be no less than 40m from a property boundary; or</p> <p>(b) be no less than:</p> <p>(i) 1.5m from an upslope or level property boundary; &amp;</p> <p>(ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or</p> <p>(iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.</p>	<p><b>P3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with all of the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A3</b></p>
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The Balance of Land Lot can comply with A3, with the following boundary setbacks;

Secondary treated effluent

1° slope to eastern property boundary

Setback required from lower-slope property boundary:  $1.5\text{m} + (1\text{m} \times 1^\circ) = 2.5\text{m}$

Setbacks of the LAA of 1.5m are also required for the upslope and side-slope property boundaries.

The Balance of Land Lot has suitable area for a 300m<sup>2</sup> LAA.

**Plate 2** – Balance Lot. Looking to the northwest.



## ONSITE WASTEWATER SUITABILITY

Both Lots are classified as Class 5 (light CLAY) in accordance with Australian Standard AS1547:2012 and the 2016 Building Act – *Director's Guidelines for Onsite Wastewater Systems*.

The 2016 Building Act – *Director's Guidelines for Onsite Wastewater Systems* define the minimum area required for Onsite Wastewater Land Application Areas (LAA) depending on the site permeability, the quality of effluent disposal (primary or secondary), and the slope of the land.

100m<sup>2</sup> of LAA is required per bedroom for a site with a slope of <10%. Therefore, the maximum required LAA for a three-bedroom residence is 300m<sup>2</sup> or 400m<sup>2</sup> for a four-bedroom residence.

The type, size and position of onsite wastewater system will need to be determined by site specific investigation, when the details of the individual developments are determined. Both proposed blocks will require the installation of systems that treat the effluent to a secondary treated level.

Both of the proposed Lots can sustain an onsite wastewater system for a single, three or four-bedroom dwellings.

## SITE AND SOIL EVALUATION REPORT

<u>Soil Category:</u> (as stated in AS/NZS 1547-2000) 1,...2,...3,...4,...5,...6		Modified Emerson Test Required If Yes, Emerson Class No. ....	No
<u>Soil Profile:</u> The locations of the test holes are nominated on the site plan.			
<u>Measured or Estimated Soil Permeability (m/d):</u>		0.12-0.5m/d	
Design Irrigation Rate (DIR)		3mm/day (Secondary Treated Effluent)	
<u>Geology:</u>		Tertiary basalt.	

<u>Slope:</u>	1 degree
<u>Drainage lines / water courses:</u>	Nil
<u>Vegetation:</u>	Grass
<u>Site History:</u> (land use)	Residential block



<u>Aspect:</u>	E
<u>Pre-dominant wind direction:</u>	Northwest to southwest
<u>Site Stability:</u> Will on-site wastewater disposal affect site stability?	No
<u>Is geological advice required?</u>	No
<u>Drainage/Groundwater:</u>	Not encountered
<u>Depth to seasonal groundwater (m):</u>	Not Encountered
<u>Are surface or sub-surface drains required upslope of the land application area</u>	No
<input checked="" type="checkbox"/> Public Supply	
<u>Date of Site Evaluation:</u>	20/4/2023
<u>Weather Conditions:</u>	Fine

## CONDITIONS OF INVESTIGATION

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This report should not be used for submission for Building or Development Application until RSG has been paid in full for its production. RSG accepts no liability for the contents of this report until full payment has been received.

The results & interpretation of conditions presented in this report are current at the time of the investigation only. The investigation has been conducted in accordance with the specific client's requirements &/or with their servants or agent's instructions. This report contains observations & interpretations based often on limited subsurface evaluation. Where interpretative information or evaluation has been reported, this information has been identified accordingly & is presented based on professional judgement. RSG does not accept responsibility for variations between interpreted conditions & those that may be subsequently revealed by whatever means.



Due to the possibility of variation in subsurface conditions & materials, the characteristics of materials can vary between sample & observation sites. RSG takes no responsibility for changed or unexpected variations in ground conditions that may affect any aspect of the project. The classifications in this report are based on samples taken from specific sites. The information is not transferable to different sites, no matter how close (ie if the development site is moved from the original assessment site an additional assessment will be required).

It is recommended to notify the author should it be revealed that the sub-surface conditions differ from those presented in this report, so additional assessment & advice may be provided.

Investigations are conducted to standards outlined in Australian Standards:

- AS1726-1993: Geotechnical Site Investigations
- AS1547-2012: Onsite Domestic Wastewater Management

& as specified in 'Guidelines for Geotechnical Assessment of Subdivisions and Recommended Code of Practise for Site Classification to AS2870 in Tasmania' - Institute of Engineers, Tasmanian Division.

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## RECCOMENDATIONS

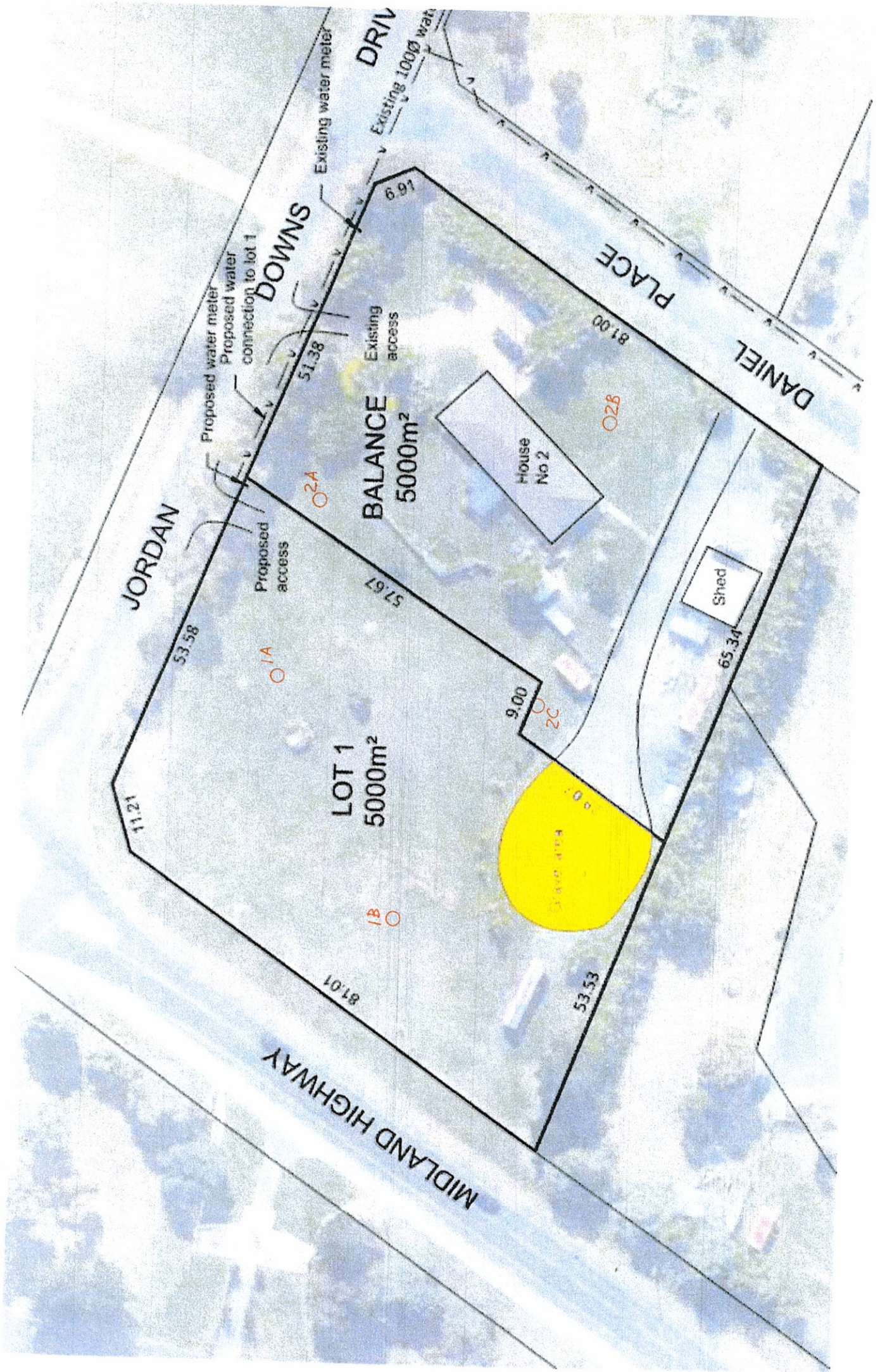
Both proposed Lots can sustain onsite wastewater systems for single, three or four bedroom dwellings, in compliance with the *Land Use Planning and Approvals Act 1993* and the *Tasmanian Planning Scheme – Brighton Council*.



PETER HOFTO

ROCK SOLID GEOTECHNICS PTY LTD







## GEOTECH 23-053

Mr Peter Gangell      0418122191  
[pjgangell@outlook.com](mailto:pjgangell@outlook.com)

18/5/2023

ROCK SOLID GEOTECHNICS PTY LTD  
Peter Hofto  
163 Oriellton Road  
Oriellton  
TAS      7172  
0417 960 769  
[peter@rocksolidgeotechnics.com.au](mailto:peter@rocksolidgeotechnics.com.au)

### Onsite Wastewater System Design – 2 Jordon Downs Drive, Brighton

Below find the assessment to determine of the type and size of wastewater treatment system, and the allocation of a Land Application Area (LAA) for the 4-bedroom residence at 2 Jordon Downs Drive, Brighton (Figure 1). This assessment should be read in conjunction with Site & Soil Evaluation Report (GEOTECH 23-053) - enclosed.

The current 4-bedroom residence will be retained on the Balance of Land portion of the property. The residence is currently serviced with an onsite wastewater system consisting of;

- Blackwater collected in a septic tank. Effluent discharges to a sump tank fitted with a submersible pump. Effluent is pumped to a trench / bed sited to the west of the residence (on proposed Lot 1).
- Greywater effluent is collected in a sump tank fitted with a submersible pump. Greywater discharges to movable surface pipe (on proposed Balance of Land Lot).

The blackwater trench / bed will be impacted by the proposed subdivision, so the current onsite wastewater system will need to be changed.

The Balance of Land Lot generally slopes at 1 degree to the east. The block is covered in grass, and minor shrubs and trees.

The profiles encountered in Test Holes 2A & 2B consisted of;

0.00 – 0.20m	SAND: fine grained, greyish brown, roots & rootlets - TOPSOIL
0.20 – 0.85m	sandy CLAY: medium plasticity, brown / light brown, 35-40% fine to medium grained sand, moist
0.85 – 1.05m	gravelly SAND: fine to coarse grained, greyish brown, 25% fine to medium angular basalt gravel, dry – EXTREMELY WEATHERED BASALT
1.05m+	Mechanical auger refusal on basalt bedrock

Groundwater was not encountered in either test hole.

The site is classified as CLASS 5 – light CLAY (AS1547) w.r.t. onsite wastewater disposal.

A Design Irrigation Rate (DIR) of 3mm/day is appropriate (Class 5 light CLAY site).

4-bedroom residence	6persons occupancy	
Reticulated water	150 litres/person/day	
Wastewater Load	6 x 150 litres/person/day	900 litres/day
Design Irrigation Rate (DIR)	3mm/day	Secondary treated effluent
Irrigation Area	$900 / 3 = 300\text{m}^2$	

Calculated size of the required wastewater LAA =  $300\text{m}^2$ . It is proposed to install a single Irrigation Zone, located to the west of the current residence.

Compliance with the 2016 Director's Guidelines for Onsite Wastewater Disposal

Compliance Table Directors Guidelines for OSWM		
Acceptable Solutions	Performance Criteria	Compliance achieved by
7. Standards for Wastewater Land Application Areas		
<b>A1</b> Horizontal separation distance from a building to a LAA must comply with one of the following: a) be no less than 6m; b) be no less than: (i) 3m from an upslope boundary 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.	<b>P1</b> The LAA is located so that the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.	Complies with <b>A1</b>  Distance between residence & LAA >3.
<b>A2</b> Horizontal separation distance from downslope surface water to a LAA 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 downslope surface water.	<b>P2</b> Horizontal separation distance from downslope surface water to a LAA 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.	Complies with <b>A2</b>  LAA 100m from downslope surface water.

<p><b>A3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with either of the following:</p> <p>(a) be no less than 40m from a property boundary; or</p> <p>(b) be no less than:</p> <p>(i) 1.5m from an upslope or level property boundary; &amp;</p> <p>(ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or</p> <p>(iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.</p>	<p><b>P3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with all of the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.</p>	<p>Complies with <b>P3</b></p> <p>LAA 1.5m from side-slope property boundary.</p> <p>1° slope.</p> <p>Secondary treated effluent.</p> <p>Lower slope boundary required;  <math>1.5\text{m} + (1\text{m} \times 1^\circ) = 2.5\text{m}</math>  Measured down the slope</p>
<p><b>A4</b></p> <p>Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.</p>	<p><b>P4</b></p> <p>Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must comply with all of the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A4</b></p> <p>No known potable bores within 50m of the site.</p>
<p><b>A5</b></p> <p>Vertical separation distance between groundwater &amp; a LAA must be no less than:</p> <p>(a) 1.5m if primary treated effluent; or</p> <p>(b) 0.6m if secondary treated effluent</p>	<p><b>P5</b></p> <p>Vertical separation distance between groundwater and a LAA must comply with the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A5</b></p> <p>Groundwater not encountered.</p>
<p><b>A6</b></p> <p>Vertical separation distance between a limiting layer &amp; a LAA must be no less than:</p> <p>(a) 1.5m if primary treated effluent; or</p> <p>(b) 0.5m if secondary treated effluent</p>	<p><b>P6</b></p> <p>Vertical setback must be consistent with AS/NZS1547 Appendix R.</p>	<p>Complies with <b>A6</b></p> <p>Secondary treated effluent.</p> <p>Separation &gt; 0.50m.</p>

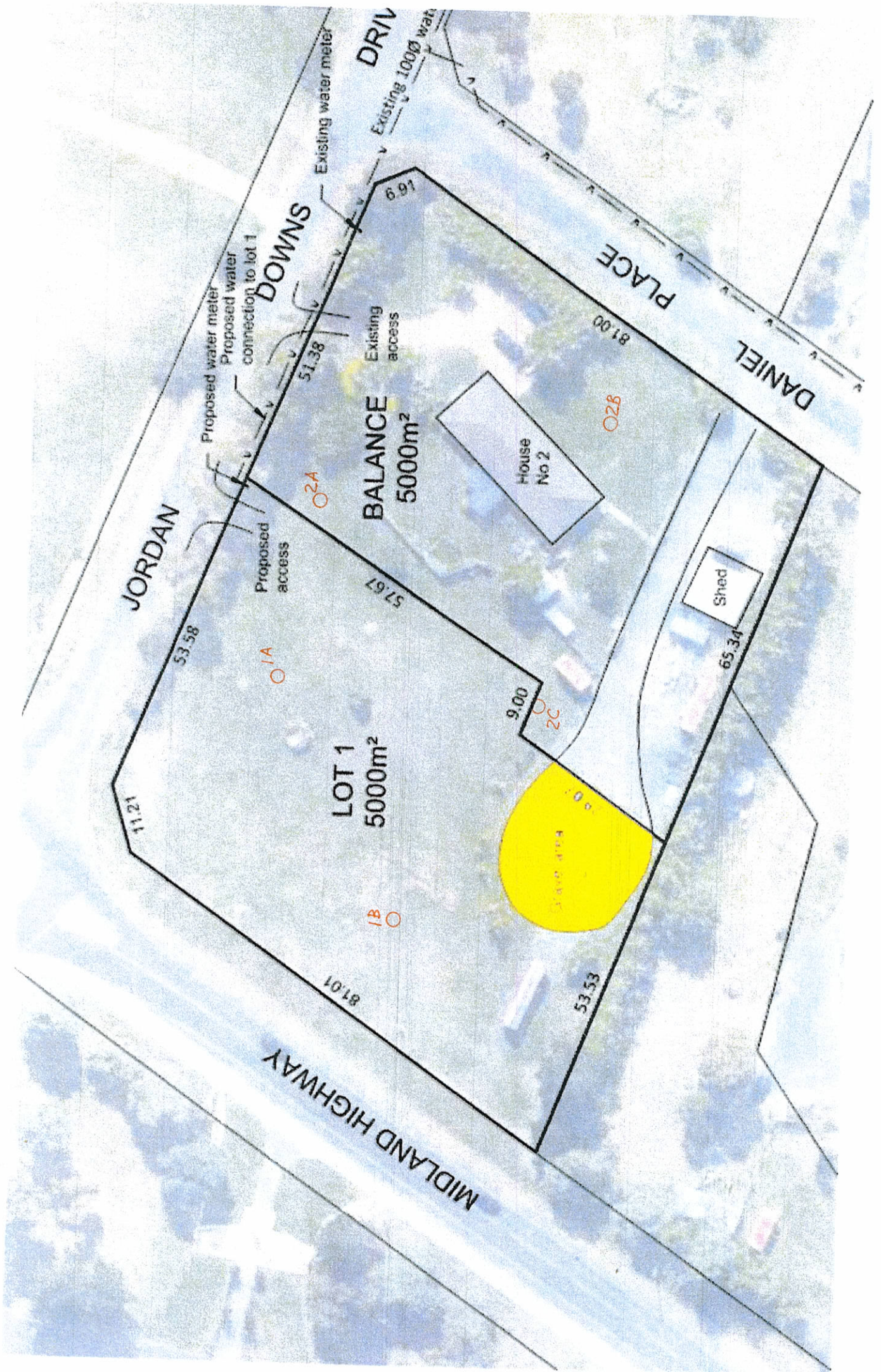


## LAND APPLICATION AREA

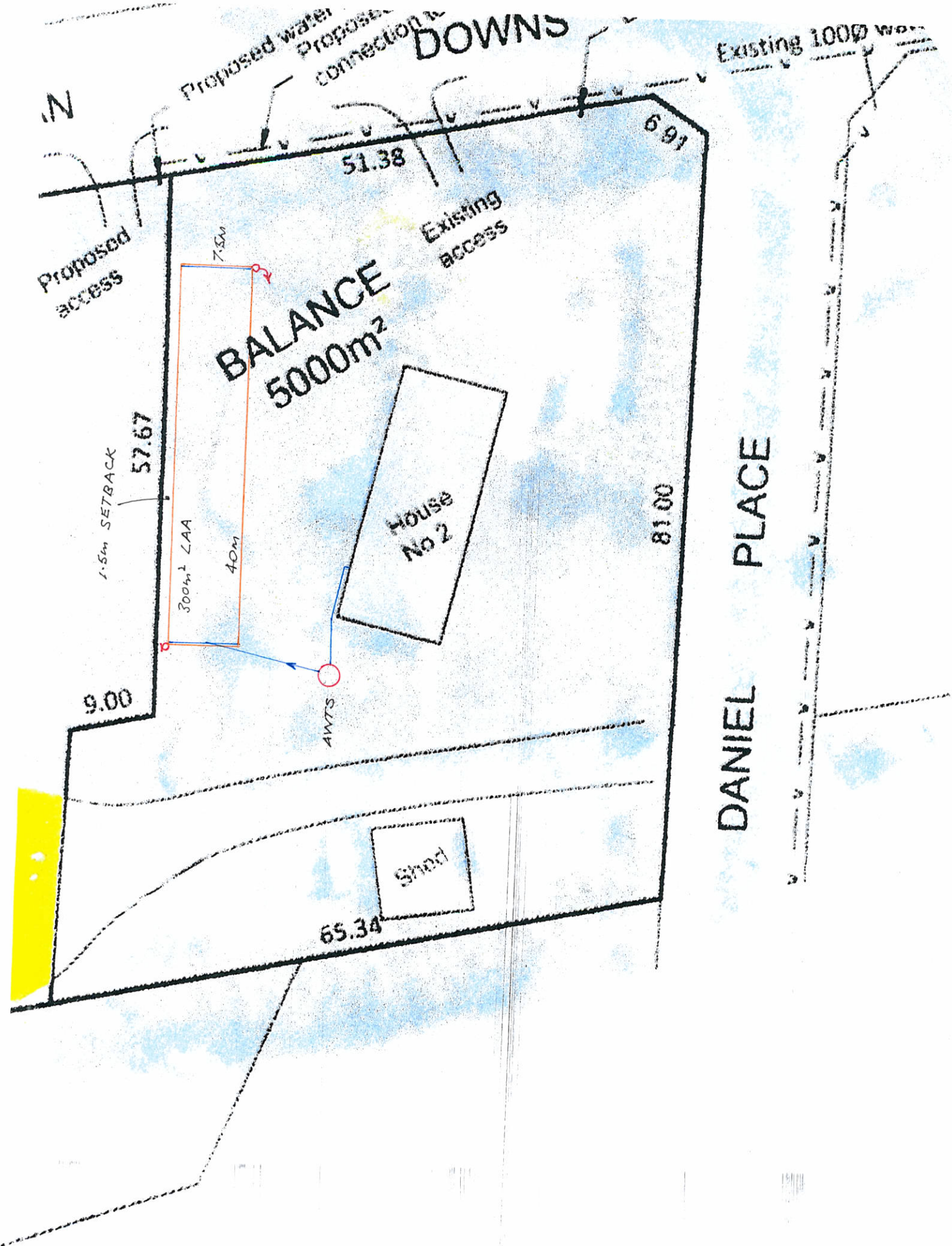
The Land Application Area should be constructed as per the following specifications:

- Establishment and maintenance of a minimum of 300m<sup>2</sup> of LAA in a single zone.
- The area is to consist of sub-surface irrigation under designated lawns.
- Landscaping of the irrigation area is to be maintained in good order at all times. Such maintenance includes the mowing of the lawns.
- The irrigation area is not to be used for growing vegetables.
- The drip lines must be rated for use with wastewater (pressure compensated), and organized to cover the entire 300m<sup>2</sup> zone @ 0.8m spacings.
- A Vacuum Breaker Valve should be provided at the high point of the LAA, and placed in a Valve box to enable inspection.
- A Flush Valve should be provided for the LAA, with piping returning the flush water to the treatment plant. The Flush Valve is to be installed in a Valve box to allow inspection and servicing.
- An inline strainer (150-200 mesh) is to be installed to prevent solids from entering the irrigation system.
- The area should not be driven on, as compaction of the subsurface driplines will render the system unserviceable.





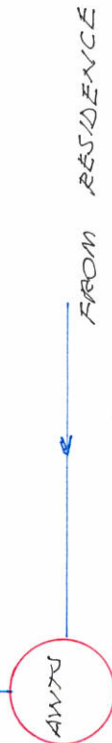
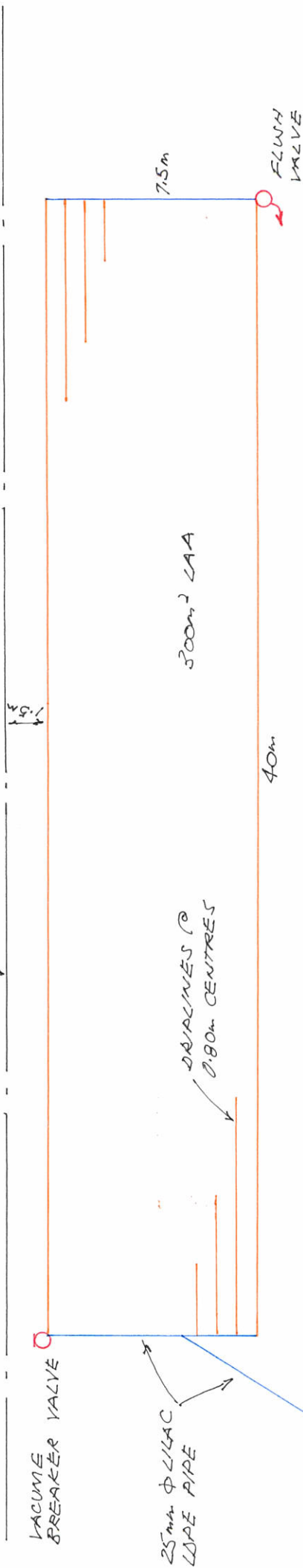




PLAN  
PROPOSED WASTEWATER SYSTEM  
1:200

1:200

NEW BOUNDARY



## SITE AND SOIL EVALUATION REPORT

<u>Soil Category:</u>	
(as stated in AS/NZS 1547-2000)	Modified Emerson Test Required
1,...2,...3,...4,...5,...6	No
	If Yes, Emerson Class No. ....
<u>Soil Profile:</u> The locations of the test holes are nominated on the site plan.	
<u>Measured or Estimated Soil Permeability (m/d):</u>	0.12-0.5m/d
<u>Design Irrigation Rate (DIR)</u>	3mm/day (Secondary Treated Effluent)
<u>Geology:</u>	Tertiary basalt.
<u>Slope:</u>	1 degree
<u>Drainage lines / water courses:</u>	Nil
<u>Vegetation:</u>	Grass
<u>Site History: (land use)</u>	Residential block
<u>Aspect:</u>	E
<u>Pre-dominant wind direction:</u>	Northwest to southwest
<u>Site Stability:</u> Will on-site wastewater disposal affect site stability?	No
<u>Is geological advice required?</u>	No
<u>Drainage/Groundwater:</u>	Not encountered
<u>Depth to seasonal groundwater (m):</u>	Not Encountered
<u>Are surface or sub-surface drains required upslope of the land application area</u>	No
<input checked="" type="checkbox"/> Public Supply	
<u>Date of Site Evaluation:</u>	20/4/2023
<u>Weather Conditions:</u>	Fine



# CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94  
Section 106  
Section 129  
Section 155

Form **35**

To: Mr Peter Gangell *Owner name*

[pjgangell@outlook.com](mailto:pjgangell@outlook.com) *Address*

Designer details:

Name:

PETER HOFTO

Category:

Hydraulic - Restricted

Business name:

ROCK SOLID GEOTECHNICS PTY LTD

Phone No:

0417960769

Business address:

163 Orielton Road

Orielton

7172

Fax No:

Licence No:

CC 6159I

Email address:

[peter@rockolidgeotechnics.com.au](mailto:peter@rockolidgeotechnics.com.au)

Details of the proposed work:

Owner/Applicant

Mr Peter Gangell

Designer's

project

reference No.

GEOTECH

23-053

Address:

2 Jordon Downs Drive, Brighton

Lot No:

Type of work:

Building work

☐

Plumbing work

☒

ONSITE WASTEWATER MANAGEMENT SYSTEM

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

Certificate Type:

Certificate

Responsible Practitioner

X Plumbing design

Plumber-Certifier; Architect, Building  
Designer or Engineer

<input type="checkbox"/> Other (specify)		
Deemed-to-Satisfy: X	Performance Solution: <input type="checkbox"/> ( <i>X the appropriate box</i> )	
Drawing numbers:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 3/5/2023
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 18/5/2023
Computations:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 18/5/2023
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 18/5/2023


Standards, codes or guidelines relied on in design process:	
AS1547-2012	
BUILDING ACT 2016	

Attribution as designer:	
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I PETER HOFTO – ROCK SOLID GEOTECHNICS P/L 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.

	<i>Name: (print)</i>	<i>Signed</i>	<i>Date</i>
Designer:	PETER HOFTO		18/5/2023
Licence No:	CC 6159I		



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:

- ☒ The works will not increase the demand for water supplied by TasWater
- ☒ 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
- ☒ The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- ☒ The works will not damage or interfere with TasWater's works
- ☒ The works will not adversely affect TasWater's operations
- ☒ The works are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- ☒ I have checked the LISTMap to confirm the location of TasWater infrastructure
- ☒ 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 PETER HOFTO – ROCK SOLID GEOTECHNICS P/L 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](http://www.taswater.com.au)

	Name: (print)	Signed	Date
Designer:	PETER HOFTO		18/5/2023

Mr Peter Gangell  
[pjgangell@outlook.com](mailto:pjgangell@outlook.com)

ROCK SOLID GEOTECHNICS PTY LTD  
Peter Hofto  
163 Orierton Rd  
Orierton  
TAS 7172  
0417960769  
[peter@rocksolidgeotechnics.com.au](mailto:peter@rocksolidgeotechnics.com.au)

18/5/2023

**Loading Certificate for Onsite Wastewater System - 2 Jordon Downs Drive, Brighton**

- 1 System Capacity: (medium/long term)
  - 4-bedroom residence, 5 persons total 900 litres/day
- 2 Design Criteria Summary:
  - Secondary Treated Effluent Aerated Wastewater Treatment System (AWTS)
  - Soil Category Class 5 light CLAY
  - Land Application System 300m<sup>2</sup> of subsurface irrigation
- 3 Reserve Area:
  - Suitable reserve area if required in the future.
- 4 Variation from design flows etc:
  - The system should successfully assimilate additional peak loadings which may result from occasional social gatherings provided that this does not exceed use by more than 10 persons in a 24-hour period. Visitors should be advised of the requirement to minimise time spent in showers, not unduly running taps, and other common-sense water conservation measures.
- 5 Consequences of overloading the system:
  - Long term use by more than 6 residents or equivalent may result in overloading of the system, surfacing of effluent, public and environmental health nuisances, pollution of surface water etc.
- 6 Consequences of under-loading the system:
  - Nil.
- 7 Consequences of lack of operation, maintenance and monitoring attention:
  - The AWTS must be maintained by a contracted maintenance provider.

  
Peter Hofto

Rock Solid Geotechnics Pty Ltd

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**This report should not be used for submission for Building or Development Application until RSG has been paid in full for its production.** RSG accepts no liability for the contents of this report until full payment has been received.

The results & interpretation of conditions presented in this report are current at the time of the investigation only. The investigation has been conducted in accordance with the specific client's requirements &/or with their servants or agent's instructions.

This report contains observations & interpretations based often on limited subsurface evaluation. Where interpretative information or evaluation has been reported, this information has been identified accordingly & is presented based on professional judgement. RSG does not accept responsibility for variations between interpreted conditions & those that may be subsequently revealed by whatever means. Due to the possibility of variation in subsurface conditions & materials, the characteristics of materials can vary between sample & observation sites. RSG takes no responsibility for changed or unexpected variations in ground conditions that may affect any aspect of the project. The classifications in this report are based on samples taken from specific sites. The information is not transferable to different sites, no matter how close (ie. if the development site is moved from the original assessment site an additional assessment will be required).

It is recommended to notify the author should it be revealed that the sub-surface conditions differ from those presented in this report, so additional assessment & advice may be provided.

- **AS1547-2012:**                      **Onsite Domestic Wastewater Management**

Any assessment that has included an onsite wastewater system design will require a further site visit / inspection once the system has been installed. **It is the responsibility of the client / plumber to inform the author as to when the wastewater system is being installed, and to arrange the final inspection.** After the inspection to verify that the system has been installed as per RSG's design a statement will be provided. An additional fee applies for the site visit & issuing the certificate.

RSG is not responsible for the correct installation of wastewater systems. Any wastewater installation is the sole responsibility of the owner/agent and certified plumber. Any variation to the wastewater design must be approved by RSG, and an amended Special Plumbing Permit obtained from the relevant council. The registered plumber must obtain a copy and carefully follow the details in the council issued Special Plumbing Permit. A "Certificate of Completion" will be based on surface visual inspection only, to verify the location of the system. All underground plumbing works are the responsibility of the certified plumber.

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PETER HOFTO

ROCK SOLID GEOTECHNICS PTY LTD