



Brighton Council

Council Representatives:	Cr Gray (Chairperson); Cr Owen (Deputy Chair); Cr Curran; Cr Foster; Cr Garlick; Cr Geard; Cr Jeffries; Cr Murtagh and Cr Whelan.
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NOTICE OF MEETING

Dear Councillor,

Notice is hereby given that the next *Planning Authority Meeting* will be held in the Council Chambers, Council Offices, Old Beach at 5.30 p.m. on *Tuesday, 13th April 2021*, to discuss business as printed below.

Qualified Person Certification

I HEREBY CERTIFY that in accordance with Section 65 of the Local Government Act 1993, any advice, information and recommendation contained in the reports related to the Agenda have been prepared by persons who have the qualifications or experience necessary to give such advice, information and recommendations.

Dated at Old Beach this 8th day of *April 2021*.

James Dryburgh
GENERAL MANAGER

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Planning Authority

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A G E N D A

1. ACKNOWLEDGEMENT OF COUNTRY:

I would like to begin by acknowledging the traditional owners of the land on which we meet today. I would like to pay my respects to Elders past and present and acknowledge the Aboriginal people present today.

2. APOLOGIES:

3. QUESTION TIME & DEPUTATIONS:

4. DECLARATION OF INTEREST:

In accordance with Part 5, Section 48 of the *Local Government Act 1993*, the Chairman of a meeting is to request Councillors to indicate whether they have, or are likely to have an interest in any item on the agenda; and Part 2 Regulation 8 (7) of the *Local Government (Meeting Procedures) Regulations 2015*, the Chairman of a meeting is to request Councillors to indicate whether they have, or are likely to have, a pecuniary interest in any item on the agenda.

Accordingly, Councillors are requested to advise of any interest they may have in respect to any matter appearing on the agenda, or any supplementary item to the agenda, which the Council has resolved to deal with, in accordance with Part 2 Regulation 8 (6) of the *Local Government (Meeting Procedures) Regulations 2015*.

5. COUNCIL ACTING AS PLANNING AUTHORITY:

In accordance with the provisions of Part 2 Regulation 25 of the *Local Government (Meeting Procedures) Regulations 2015*, the intention of the Council to act as a planning authority pursuant to the *Land Use Planning and Approvals Act 1993* is to be noted. In accordance with Regulation 25, the Council will act as a planning authority in respect to those matters appearing under Item 5 on this agenda, inclusive of any supplementary items.

5.1 APPLICATION UNDER BRIGHTON INTERIM PLANNING SCHEME 2015 - SA 2020/049 – 13 GLEN LEA ROAD, PONTVILLE TWO (2) LOT SUBDIVISION:

Type of Report:	Planning Authority – For Decision
Application No:	SA 2020/049
Address:	13 Glen Lea Road, Pontville
Proposal:	Two (2) Lot Subdivision
Zone:	Rural Living Zone
Representations:	One (1)
Discretions:	1. Subdivision (Section 9.10) 2. Lot Design (Section 13.5.1 A2) 3. Lot Design (Section 13.5.1 A5) 4. Public Open Space (Section 13.5.3 A2) 5. Services (Section 13.5.4 A2) 6. Services (Section 13.5.4 A3) 7. Stormwater Management (Section E7.7.1 A1) 8. Waterway and Coastal Protection (Section E11.7.1 A1, E11.8.1 A1)
Attachments:	A – Plans & Documentation (See pages 82 - 139) B – TasWater Submission to Planning Authority
Author:	Manager Development Services (David Allingham)

1. Executive Summary

- 1.1. Planning approval is sought for Subdivision at 13 Glen Lea Road, Pontville (the 'site'). The site is within the Rural Living Zone of the *Brighton Interim Planning Scheme 2015* (the 'Interim Scheme').
- 1.2. The application is known as SA 2020/049. The application is discretionary and relies on Performance Criteria. The key issues relate to stormwater management.
- 1.3. One (1) representation was received within the statutory public advertising period, with concerns relating to stormwater management.
- 1.4. The application is recommended for approval.
- 1.5. The final decision is delegated to the Planning Authority or by full Council acting as a planning authority.

2. Legislative & Policy Content

- 2.1. The purpose of this report is to enable the Planning Authority to determine application SA 2020/049.
- 2.2. This determination must be made no later than 20 April 2021. The statutory assessment period has been extended to this date with the consent of both the applicant and the Planning Authority.
- 2.3. The relevant legislation is the *Land Use Planning and Approvals Act 1993* (the 'Act'). The provisions of the Act require a planning authority to take all reasonable steps to ensure compliance with the planning scheme.
- 2.4. This report details the reasons for the officer recommendation. The Planning Authority must consider this report but is not bound to adopt the recommendation. Broadly, the Planning Authority can either: (1) adopt the recommendation, or (2) vary the recommendation by adding, modifying or removing recommended reasons and conditions or replacing an approval with a refusal (or vice versa). Any alternative decision requires a full statement of reasons to comply with the *Judicial Review Act 2000* and the *Local Government (Meeting Procedures) Regulations 2015*.
- 2.5. This report has been prepared with appropriate regard to the State Policies that apply under the *State Policies and Projects Act 1993*.
- 2.6. This report has been prepared with appropriate regard to Council's Strategic Plan and other Council policies, and the application is not found to be inconsistent with these. Nevertheless, it must be recognised that the planning scheme is a regulatory document that provides the overriding consideration for this application. Matters of policy and strategy are primarily a matter for preparing or amending the planning scheme.

3. Risk & Implications

- 3.1. Approval or refusal of this application will have no direct financial implications for the Planning Authority, unless the decision is appealed.
- 3.2. Implications for Council include general matters related to rate income, asset maintenance and renewal and responding to future building applications.

4. Relevant Background

- 4.1. None relevant.

5. Site Detail

- 5.1. The subject site is the land contained at 13 Glen Lea Road, Pontville.
- 5.2. The site has an area of 1.464a.
- 5.3. The site sits to the south of Glen Lea Road, which is a Council maintained road. The land is relatively flat.
- 5.4. The site is currently developed by a single dwelling.
- 5.5. The site is zoned Rural Living under the Interim Scheme. The land adjoining the site is also zoned Rural Living.
- 5.6. The closest Rural Resource zoned land is approximately 310m to the north-west. The closest Significant Agriculture zoned land is approximately 1.3km to the north. The closest Environmental Management zoned land is approximately 670m to the north-west.



Figure 1. Aerial photography of the subject site.

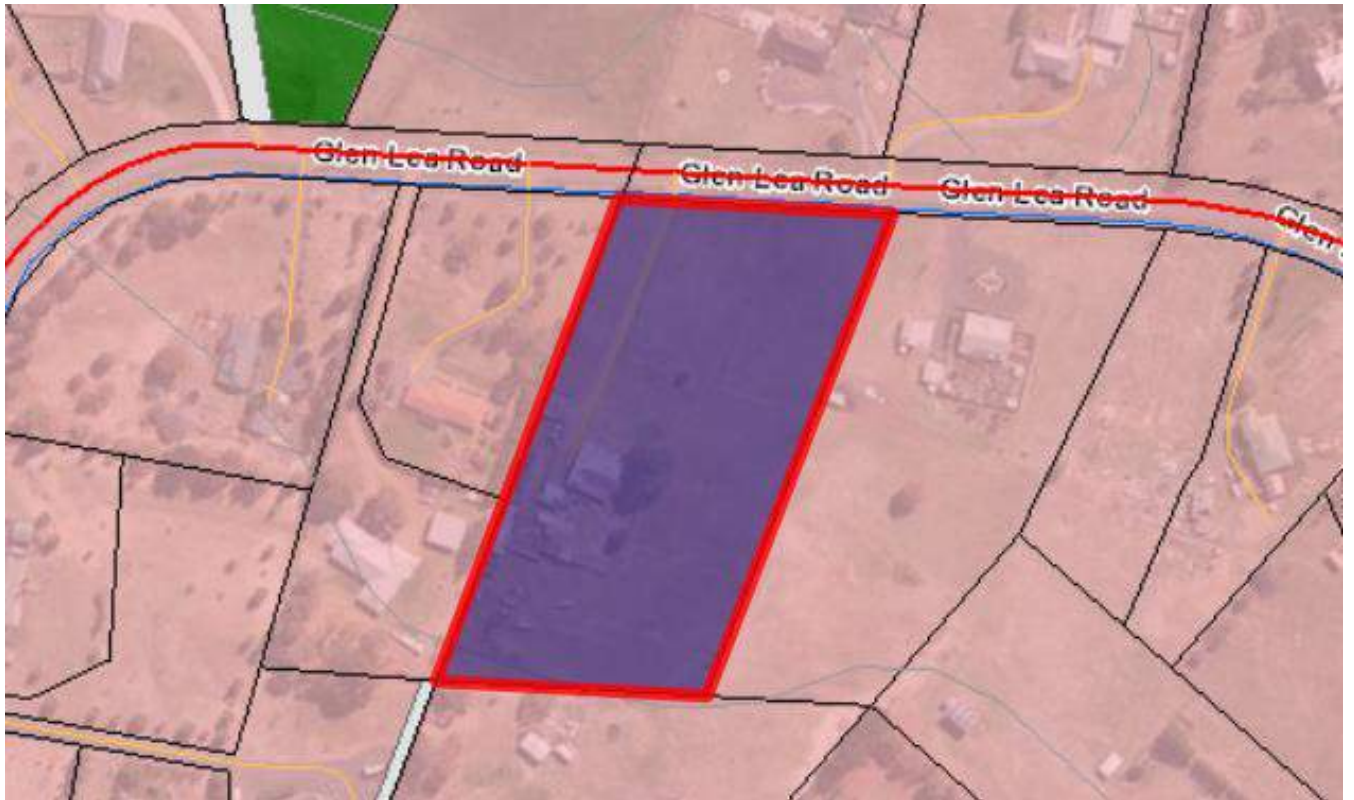


Figure 2. Zoning of the subject site and surrounds. Pink denotes the Rural Living Zone.

6. Proposal

6.1. The applicant has proposed a two-lot subdivision of the site.

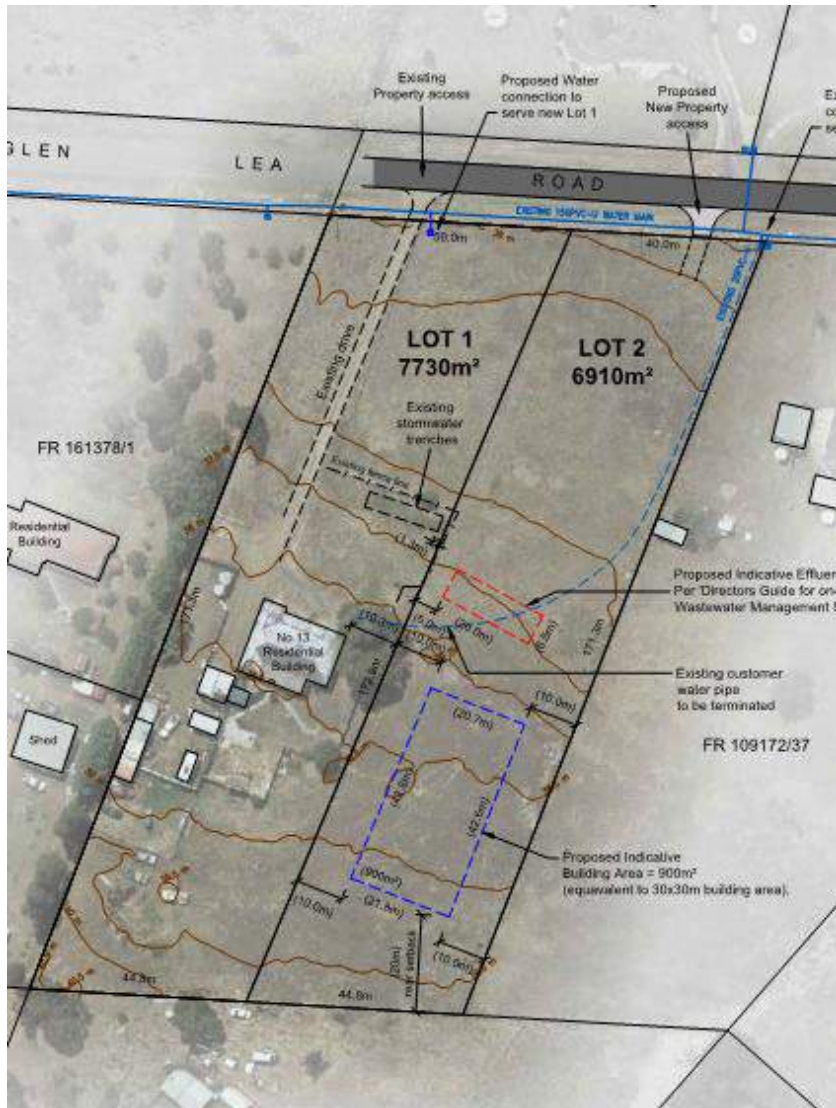


Figure 4. Proposed subdivision layout.

- 6.2. Lot 1 will include the existing dwelling and outbuildings, and is proposed to have a lot area of 7730m².
- 6.3. Lot 2 is currently vacant. It has a proposed lot area of 6910m².
- 6.4. Both lots are proposed to have their own access to Glen Lea Road.

7. Assessment

7.1. The *Brighton Interim Planning Scheme 2015* is a performance-based planning scheme.

- 7.2. To meet an applicable standard, a proposal must demonstrate compliance with either an Acceptable Solution or a Performance Criterion. Where a proposal complies with a standard by relying on one or more Performance Criteria, the Council may approve or refuse the proposal on that basis. The ability to refuse the proposal relates only to the Performance Criteria relied upon.

8. Assessment against planning scheme provisions

- 8.1. The following provisions are relevant to the assessment of the proposed use and development:

- Part C - Section 9.0 - Special Provisions
- Part D - Section 13.0 - Rural Living Zone
- Part E - Section E1.0 - Bushfire Hazard Management Code
- Part E - Section E5.0 - Road and Railway Assets Code
- Part E - Section E6.0 - Parking and Access Code
- Part E - Section E7.0 - Stormwater Management Code
- Part E - Section 11.0 - Waterway and Coastal Protection Code

- 8.2. The application satisfies the following relevant Acceptable Solutions of the applicable provisions:

- Section 13.5.1 A1 - Lot Design - Area
- Section 13.5.1 A3 - Lot Design - Frontage
- Section 13.5.1 A4 - Lot Design - Internal Lot
- Section 13.5.2 A1 - Roads
- Section 13.5.4 A1 - Services
- Section E1.6.1 A1 - Subdivision Hazard Management Areas
- Section E1.6.2 A1 - Subdivision Public & Fire Fighting Access
- Section E1.6.3 A1 - Subdivision Water Supply
- Section E5.5.1 A3 - Existing Road Accesses and Junctions
- Section E5.6.2 A2 - Road Accesses and Junctions
- E5.6.4 A1 - Sight distance at accesses, junctions and level crossings

- Section E6.6.1 – Number of parking spaces
- Section E6.7.1 A1 – Number of Vehicular Accesses
- Section E6.7.2 A1 - Design of Vehicular Accesses
- Section E6.7.4 A1 – On-Site Turning
- Section E6.7.6 A1 – Surface Treatment of Parking Areas
- Section E6.7.14 A1 - Access to a Road
- Section 11.7.1 A2, A3 and A4 – Building and works
- Section 11.7.2 A2, A3 – Buildings and Works Dependent on Coastal Location
- Section 11.8.1 A2 - Subdivision

8.3. The following discretions are invoked by the proposal:

- Section 9.10 – Subdivision
- Section 13.5.1 A2 – Lot Design – Building Area
- Section 13.5.1 A5 – Lot Design - Setback
- Section 13.5.3 A1 – Public Open Space
- Section 13.5.4 A2 – Services – On-site wastewater
- Section 13.5.4 A4 – Services - Stormwater
- Section E7.7.1 A1 – Stormwater Management
- Section E11.7.1 A2 – Buildings and Works
- Section E11.8.1 A1 - Subdivision

8.4. **Discretion 1 – Subdivision**

8.4.1 Section 9.10.2 of the Interim Scheme states:

A permit for development involving a plan of subdivision is discretionary unless:

- (a) *for adjustment of a boundary in accordance with clause 9.3.1;*
- (b) *the subdivision is prohibited in accordance with clause 8.9; or*

- (c) *the plan of subdivision must not be approved under section 84 Local Government (Building and Miscellaneous Provisions) Act 1993.*

8.4.2 The application invokes discretion under this standard.

8.4.3 The application is consistent with the rural Living Zone Purpose:

13.1.1 Zone Purpose Statements

13.1.1.1 To provide for residential use or development on large lots in a rural setting where services are limited.

13.1.1.2 To provide for compatible use and development that does not adversely impact on residential amenity.

13.1.1.3 To provide for agricultural uses that do not adversely impact on residential amenity.

13.1.1.4 To facilitate passive recreational uses that enhance pedestrian, cycling and horse trail linkages.

13.1.1.5 To avoid land use conflict with adjacent Rural Resource or Significant Agriculture zoned land by providing for adequate buffer areas.

8.5 Discretion 2 - Lot Design

8.5.1 The Acceptable Solution contained in Section 13.5.1 A2 states:

The design of each lot must provide a minimum building area that is rectangular in shape and complies with all of the following, except if for public open space, a riparian or littoral reserve or utilities;

- (a) *clear of the frontage, side and rear boundary setbacks;*
- (b) *not subject to any codes in this planning scheme;*
- (c) *clear of title restrictions such as easements and restrictive covenants;*
- (d) *has an average slope of no more than 1 in 5;*
- (e) *has a separation distance no less than:*
 - (i) *100 m from land zoned Rural Resource;*
 - (ii) *200 m from land zoned Significant Agriculture;*

- (f) *has a setback from land zoned Environmental Management no less than 100 m.*
- (g) *is a minimum of 30 m x 30 m in size.*

8.5.2 The proposed lot design does not comply with the Acceptable Solution as a 30m x 30m building area cannot be provided clear of the side and rear setbacks. As such, the application invokes discretion under this standard, and must be assessed against the corresponding Performance Criteria.

8.5.3 Section 13.5.1 P2 states:

The design of each lot must contain a building area able to satisfy all of the following:

- (a) *is reasonably capable of accommodating residential use and development;*
- (b) *meets any applicable standards in codes in this planning scheme;*
- (c) *enables future development to achieve reasonable solar access, given the slope and aspect of the land;*
- (d) *minimises the requirement for earth works, retaining walls, and cut & fill associated with future development;*
- (e) *is sufficiently separated from the land zoned Rural Resource and Significant Agriculture to prevent potential for land use conflict that would fetter non-sensitive use of that land, and the separation distance is no less than:*
 - (i) *40 m from land zoned Rural Resource;*
 - (ii) *80 m from land zoned Significant Agriculture;*
- (f) *is setback from land zoned Environmental Management to satisfy all of the following:*
 - (i) *there is no significant impact from the development on environmental values;*
 - (ii) *the potential for the spread of weeds or soil pathogens onto the land zoned Environmental Management is minimised;*
 - (iii) *there is minimal potential for contaminated or sedimented water runoff impacting the land zoned Environmental Management;*

(iv) *there are no reasonable and practical alternatives to developing close to land zoned Environmental Management*

- 8.5.4 It is considered that the proposed lots are of a size and shape that are able to accommodate residential development in the future.
- 8.5.5 All relevant codes are assessed under this report.
- 8.5.6 The lots are oriented to achieve reasonable solar access.
- 8.5.7 No significant earthworks, retaining walls, cut or fill are required to facilitate future residential development.
- 8.5.8 The site is setback at least 200m from land zoned Rural Resource, Significant Agriculture or Environmental Management. The setback to the Environmental Management Zone (>2km) is considered more than sufficient to comply with the requirements of part (f) of the Performance Criteria.
- 8.5.9 It is considered that the proposed development satisfies the Performance Criteria.

8.6 Discretion 3 - Lot Design

- 8.6.1 Section 13.5.1 A5 of the Interim Scheme states:

Setback from a new boundary for an existing building must comply with the relevant Acceptable Solution for setback.

The setback from the existing building to the side proposed boundary is 10.3m which doesn't satisfy the 20m setback for the Rural Living Zone. As such, the application must be assessed under the corresponding Performance Criteria.

- 8.6.2 Section 13.5.1 P5 states:

Setback from a new boundary for an existing building must satisfy the relevant Performance Criteria for setback.

The relevant Performance Criteria is at clause 13.4.2 P2 as follows:

Building setback from side and rear boundaries must maintain the desirable characteristics of the surrounding landscape and protect the amenity of adjoining lots, having regard to all of the following:

- (a) *the topography of the site;*

- (b) *the size and shape of the site;*
- (c) *the location of existing buildings on the site;*
- (d) *the proposed colours and external materials of the building;*
- (e) *visual impact on skylines and prominent ridgelines;*
- (f) *impact on native vegetation;*
- (g) *be sufficient to prevent unreasonable adverse impacts on residential amenity on adjoining lots by:*
 - (i) *overlooking and loss of privacy;*
 - (ii) *visual impact, when viewed from adjoining lots, through building bulk and massing.*

8.6.3 The existing dwelling will have a setback from the eastern boundary which is generally consistent with other dwellings in the area. A large tree provides additional screening which will reduce any adverse impact on residential amenity.

8.6.4 The proposed development satisfies the Performance Criteria.

8.7 Discretion 4 - Public Open Space

8.7.1 There is no Acceptable Solution for Section 13.5.3 A2.

8.7.2 As such, the application invokes discretion for this standard, and must be assessed against the relevant Performance Criteria.

8.7.3 Section 13.5.3 P2 states:

Public Open Space must be provided as land or cash in lieu, in accordance with the relevant Council policy.

8.7.4 Should Council, acting as the Planning Authority, determine to approve the proposed subdivision, it is recommended that a condition requiring a financial contribution in lieu of public open space, in accordance with the relevant Council Policy, be included on any permit.

8.7.5 As such, the proposed development satisfies the Performance Criteria contained in Section 13.5.3 P2 of the Interim Scheme.

8.8 Discretion 5 - Services (On-site wastewater)

8.8.1 There is no Acceptable Solution for Section 13.5.4 A2.

8.8.2 As such, the application invokes discretion for this standard, and must be assessed against the relevant Performance Criteria.

8.8.3 Section 13.5.4 P2 states:

Each lot must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.

8.8.4 The applicant provides the following statement in relation to the Performance Criteria:

A review of the Directors Guidelines for On-site Wastewater Management Systems (the standard) has been undertaken during the design of this subdivision to ensure that the existing and future development is capable of complying with this standard for on-site waste water treatment.

The waste disposal field for the existing dwelling is located within its own lot and has at least a 1.3m setback to the new boundary. Lot 2 has shown capacity to locate an area of at least 130m² for an indicative effluent disposal field (shown on the plan), which is compliant with a minimum area in the standard for heavier clay soil profiles (worst case scenario drainage) and able to meet the required setbacks from boundaries (generally 2 metres from boundaries). Given that the actual soil profile for the subject land is identified as "Undifferentiated alluvial soils" it is expected that an area of less than 130m² will be necessary.

The applicant's statement is supported, and the application is considered to satisfy the Performance Criteria.

8.9 Discretion 6 - Services

8.9.1 The Acceptable Solution for Section 13.5.4 P3 states:

Each lot must be connected to a stormwater system able to service the building area by gravity.

8.9.2 There is no public stormwater system that services the area.

8.9.3 As such, the application invokes discretion for this standard, and must be assessed against the relevant Performance Criteria.

8.9.4 Section 13.5.4 P3 states:

Each lot must be capable of accommodating an on-site stormwater management system adequate for the likely future use and development of the land.

8.9.5 Given the proposed size of the lots, it is considered that there is adequate room on site to accommodate an on-site stormwater management system that is suitable for the likely future use and development of the land. It is recommended that a condition be imposed on any permit requiring a stormwater management report to be prepared and submitted in conjunction with engineering design drawings.

8.9.6 As such, the proposed development satisfies the Performance Criteria contained in Section 13.5.4 P3 of the Interim Scheme.

8.10 Discretion 7 - Stormwater Management

8.10.1 Section E7.7.1 A1 states:

Stormwater from new impervious surfaces must be disposed of by gravity to public stormwater infrastructure.

8.10.2 There is no public stormwater system in the area able to service the development.

8.10.3 As such, the application invokes discretion for this standard, and must be assessed against the relevant Performance Criteria.

8.10.4 Section E7.7.1 P1 states:

Stormwater from new impervious surfaces must be managed by any of the following:

- (a) disposed of on-site with soakage devices having regard to the suitability of the site, the system design and water sensitive urban design principles*
- (b) collected for re-use on the site;*
- (c) disposed of to public stormwater infrastructure via a pump system which is designed, maintained and managed to minimise the risk of failure to the satisfaction of the Council.*

8.10.5 Council's Senior Technical Officer has recommended that a condition be imposed on any permit requiring that the stormwater run off from the new impervious surface (i.e., the driveway works) be managed on site, and that any run-off from the site is to be no greater than pre-existing run-off.

8.10.6 As such, the proposed development satisfies the Performance Criteria contained in Section E7.7.1 P1.

8.11 Discretion 8 - 11.7.1 A1 - Works

8.11.1 Section E11.7.1 A1 states

Building and works within a Waterway and Coastal Protection Area must be within a building area on a plan of subdivision approved under this planning scheme.

8.11.2 The proposal includes vehicular access to Lot 2 which will encroach into the Waterway and Coastal Protection Area. The Performance Criteria requires:

Building and works within a Waterway and Coastal Protection Area must satisfy all of the following:

- (a) avoid or mitigate impact on natural values;*
- (b) mitigate and manage adverse erosion, sedimentation and runoff impacts on natural values;*
- (c) avoid or mitigate impacts on riparian or littoral vegetation;*
- (d) maintain natural streambank and streambed condition, (where it exists);*
- (e) maintain in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;*
- (f) avoid significantly impeding natural flow and drainage;*
- (g) maintain fish passage (where applicable);*
- (h) avoid landfilling of wetlands;*
- (i) works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.*

8.11.3 Council's Senior Technical Officer has determined that works within the WCP area can be avoided through a condition requiring the vehicle access to be constructed on the eastern side of Lot 2. Accordingly, the PC can be satisfied.

8.12 Discretion 9 – E11.8.1 A1 Subdivision Standards

8.12.1 Section E11.8.1 A1 requires:

Subdivision of a lot, all or part of which is within a Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area must comply with one or more of the following:

- (a) *be for the purpose of separation of existing dwellings;*
- (b) *be for the creation of a lot for public open space, public reserve or utility;*
- (c) *no works, other than boundary fencing works, are within a Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area;*
- (d) *the building area, bushfire hazard management area, services and vehicular access driveway are outside the Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area.*

8.12.2 The proposal includes vehicular access to Lot 2 which will encroach into the Waterway and Coastal Protection Area. The Performance Criteria requires:

Subdivision of a lot, all or part of which is within a Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area, must satisfy all of the following:

- (a) *minimise impact on natural values;*
- (b) *provide for any building area and any associated bushfire hazard management area to be either:*
 - (i) *outside the Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area; or*
 - (ii) *able to accommodate development capable of satisfying this code.*
- (c) *if within a Potable Water Supply Area, be in accordance with the requirements of the water and sewer authority.*

8.12.3 Council's Senior Technical Officer has determined that works within the WCP area can be avoided through a condition requiring the vehicle access to be constructed on the eastern side of Lot 2. Accordingly, the PC can be satisfied.

9. Concerns Raised by Representors

- 9.1. The application was advertised in accordance with the statutory requirements of the *Land Use Planning and Approvals Act 1993*.
- 9.2. One (1) representation was received during the statutory public advertising period. The concerns of the representor are listed below:

<i>Concerns of Representor</i>	<i>Planning Response</i>
<p><i>Water flows through the rear of 13 Glen Lea Road onto 11 Glen Lea Road which has resulted in flooding and property damage at 11 Glen Lea Road.</i></p> <p><i>Council needs to consider a very extensive storm water plan when the property is to be developed/built on so that the adjoining property is not impacted.</i></p>	<p>The concerns raised by the representor are valid. There is a natural overland flow path for stormwater which runs north east through number 13 and onto number 11 Glen Lea Road as approximately indicate on the sketch they provided. This is evident when viewing the contours over the area and has been highlighted as part of Council’s stormwater investigation.</p> <p>The subdivision of 13 Glen Lea Road however has no direct impact on this overland flow path. Further development of the newly created lot will require stormwater to be managed and disposed of on site. Care will need to be taken to ensure any future dwelling or structure does not alter the overland flow path such that there is an increase in risk of flooding created on any adjacent property. The proposed new lot is of sufficient size to allow any future building to be clear of the overland flow path or manage the overland flow such that there is no increase in risk of flooding to adjacent properties. This can be managed by implementation of the Inundation Code when assessing future development on the lot.</p>

	<p>Council is currently preparing mapping of overland flow paths to inform future decision making and application of the Inundation Prone Areas Code in the Interim Planning Scheme (Flood-Prone Areas Hazard Code in the SPP). It is envisaged that this will be completed in the near future. As an interim measure a condition requiring a 10m minimum width drainage easement be provided along the eastern boundary of Lot 2 to ensure an overland flow path to Glen Lea Road is maintained is recommended. The condition should be worded to allow discretion for the Municipal Engineer to waive the requirement should the mapping be completed prior to sealing of the final plan.</p>
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10. Referrals

10.1. Development Engineering

The application was referred to Council's Senior Technical Officer, who has provided comments, conditions and advice that are incorporated into the body of this report.

10.2. TasWater

The application was referred to TasWater. TasWater has provided a Submission to Planning Authority Notice (TasWater Ref No TWDA 2021/00098-BTN, dated 4 Feb 2021), which is to be included with any permit, should approval be granted.

11. Section 35K Endorsement

11.1. On 3 February 2021, Council received a notice from the Tasmanian Planning Commission under Section 35(K)(1)(a) of the *Land Use Planning and Approvals Act 1993* to modify a draft Local Provisions Schedule (LPS).

11.2. Section 35(K)(2)(d) relevantly states:

(2) *If a planning authority is directed under subsection (1)(a) to modify a draft LPS –*

(a) ...

(b) ...

(c) ...

(d) *the planning authority must not issue a permit, or do any other thing that would, if the draft LPS as modified were an LPS, be a contravention of the LPS.*

11.3. The application has been assessed against the provisions of the draft LPS (as modified), and it is concluded that the application does not conflict with those provisions.

11.4. Should Council determine to issue a permit, it is the Officer's opinion that the Planning Authority's decision would not be in contravention of the Brighton draft LPS and would therefore satisfy the requirements of Section 35K(2)(d) of the Act.

12. Conclusion

12.1. The proposal is for a two lot subdivision in the Rural Living Zone at 13 Glen Lea Road, Pontville.

12.2. The key issues relate to the subdivision standards for the Rural Living Zone (e.g., lot design), stormwater management.

12.3. The proposed development has been assessed against the relevant provisions of the *Brighton Interim Planning Scheme 2015*, and is considered to perform well.

12.4. The development application is recommended for approval, subject to conditions.

13. Recommendations

That: A. Pursuant to the *Brighton Interim Planning Scheme 2015*, Council approve application SA 2020/049 for the proposed Two (2) Lot Subdivision in the Rural Living Zone at 13 Glen Lea Road, Pontville, and a permit be granted subject to the following conditions:

General

- (1) The use or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.
- (2) The subdivision must be carried out in accordance with:
 - a) Bushfire Hazard Report – 46085CT, Two lot subdivision - 13 Glen Lea Rd Brighton Prepared by Jim Mulcahy Dated: 11 December 2020
- (3) Prior to Council sealing the final plan of survey the developer must provide certification from a suitably qualified person that all works required by the Bushfire Hazard Report have been complied with.
- (4) This permit shall not take effect and must not be acted on until 15 days after the date of receipt of this letter or the date of the last letter to any representor, whichever is later, in accordance with Section 53 of the *Land Use Planning and Approvals Act 1993*.

TasWater

- (5) The use and/or development must comply with the requirements of TasWater, as detailed in the form Submission to Planning Authority Notice, TasWater Ref No TWDA 2021/00098-BTN, dated 4 Feb 2021, as attached to this permit.

Public Open Space

- (6) In accordance with the provisions of Section 117 of the Local Government (Building and Miscellaneous Provisions) Act 1993, payment of a cash contribution for Public Open Space must be made to the Council prior to sealing the Final Plan of Survey. The cash contribution amount is to be equal to 5% of the value of the land being described as “Lot 2” in the plan of subdivision at the date of lodgement of the Final Plan of Survey.

The value is to be determined by a Land Valuer within the meaning of the Land Valuers Act 2001 at the developers’ expense.

- (7) The cash-in-lieu of public open space must be in the form of a direct payment made before the sealing of the final plan of survey or, alternatively, in the form of a Bond or Bank guarantee to cover payment within ninety (90) days after demand, made after the final plan of survey has taken effect.

Easements

- (8) Easements must be created over all drains, pipelines, wayleaves and services in accordance with the requirements of the Council’s Municipal Engineer. The cost of locating and creating the easements shall be at the subdivider’s full cost.

- (9) Unless approved otherwise by Council's Municipal Engineer an 10m wide drainage easement must be provided along the eastern boundary of Lot 2. The easement is to ensure an unimpeded overland stormwater flowpath to Glen Lea Road is maintained.

Advice:

Should Council complete mapping of overland flowpath networks within the area to inform future decision making and implementation of the Inundation Code Council's Municipal Engineer may waive the requirement for the easement.

Endorsements

- (10) The final plan of survey must be noted that Council cannot or will not provide a means of drainage to all lots shown on the plan of survey.

Final plan

- (11) A final approved plan of survey and schedule of easements as necessary, together with two (2) copies, must be submitted to Council for sealing for each stage. The final approved plan of survey must be substantially the same as the endorsed plan of subdivision and must be prepared in accordance with the requirements of the Recorder of Titles.
- (12) Prior to Council sealing the final plan of survey for each stage, security for an amount clearly in excess of the value of all outstanding works and maintenance required by this permit must be lodged with the Brighton Council. The security must be in accordance with section 86(3) of the *Local Government (Building & Miscellaneous Provisions) Act 1993*. The amount of the security shall be determined by the Council's Municipal Engineer in accordance with Council Policy 6.3 following approval of any engineering design drawings and shall not be less than \$5,000.
- (13) All conditions of this permit, including either the completion of all works and maintenance or payment of security in accordance with this permit, must be satisfied before the Council seals the final plan of survey for each stage. It is the subdivider's responsibility to notify Council in writing that the conditions of the permit have been satisfied.
- (14) The subdivider must pay any Titles Office lodgement fees direct to the Recorder of Titles.

Engineering

- (15) The subdivision must be carried out in accordance with the Tasmanian Subdivision Guidelines October 2013 (attached).

Water quality

- (16) Temporary run-off, erosion and sediment controls must be installed in accordance with the guidelines Soil and Water Management on Building and Construction Sites, by the Derwent Estuary Programme and NRM South, and must be maintained at full operational capacity to the satisfaction of Council's Municipal Engineer until the land is effectively rehabilitated and stabilised after completion of the development.

Property Services

- (17) The Subdivider must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the proposed subdivision works. Any work required is to be specified or undertaken by the authority concerned.
- (18) Any existing services shared between lots are to be separated to the satisfaction of Council's Municipal Engineer.
- (19) Property services must be contained wholly within each lot served or an easement to the satisfaction of the Council's Municipal Engineer or responsible authority.
- (20) Property services for Lot 2 are to be located on the eastern side of the frontage.

Telecommunications and electrical reticulation

- (21) Electrical and telecommunications services must be provided to each lot in accordance with the requirements of the responsible authority and to the satisfaction of Council's Municipal Engineer.
- (22) Prior to sealing the final plan of survey, the developer must submit to Council:
- a) A "Provisioning of Telecommunications Infrastructure - Confirmation of final payment" or "Certificate of Practical Completion of Developer's Activities" from NBN Co.
 - b) A Letter of Release, or equivalent, from TasNetworks confirming that all conditions of the Agreement between the Owner and authority have been complied with and that future lot owners will not be liable for network extension or upgrade costs, other than individual property connections (basic connection) at the time each lot is further developed.

Vehicular Access

- (23) A sealed vehicle access must be provided from the road carriageway to service each lot.
- (24) The access to Lot 2 must be located toward the eastern side of the frontage.

- (25) Vehicular accesses must be located and constructed in accordance with the standards shown on standard drawings TSD-R03-v2 Rural Roads Typical Property Access, TSD-R04-v2 Rural Roads Typical Driveway Profile and TSD-RF01-v2 Guide To Intersection And Domestic Access Sight Distance Requirements prepared by the IPWE Aust. (Tasmania Division), or as otherwise required by this permit, and the satisfaction of Council's Municipal Engineer.
- (26) The existing vehicular access to Lot 1 must be upgraded and provided with a culvert such that the culvert is at a level that maintains grade within the roadside table drain. The culvert end walls are to be constructed to a standard and showing a clear unobstructed stormwater pathway to the neighbouring pit.

Access to Public Road

ADVICE: No works on or affecting any Council road reservation is to be commenced until the Brighton Council has issued a WORKS IN ROAD RESERVATION PERMIT. Application for the issue of the necessary works permit is to be made to the Brighton Council's Asset Services department prior to the proposed date of commencement of any works.

Wastewater

- (27) Prior to Council sealing the final plan of survey the developer must provide a Wastewater Report, prepared by a suitably qualified person, demonstrating that the wastewater system for the existing house is contained entirely on Lot 1 and that Lot 2 is capable of accommodating an on-site wastewater system suitable for any future development of the site to the satisfaction of Council's Senior Environmental Health Officer.

Any measures required by the report must be implemented prior to the sealing of the Plan of Survey for the subdivision.

Construction Amenity

- (28) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager Development Services:
- Monday to Friday 7:00 a.m. to 6:00 p.m.
 - Saturday 8:00 a.m. to 6:00 p.m.
 - Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.

- (29) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
- a) Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - b) The transportation of materials, goods and commodities to and from the land.
 - c) Obstruction of any public footway or highway.
 - d) Appearance of any building, works or materials.
- (30) Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site will be permitted unless approved in writing by the Council's Manager Development Services.
- (31) Public roadways or footpaths must not be used for the storage of any construction materials or wastes, for the loading/unloading of any vehicle or equipment; or for the carrying out of any work, process or tasks associated with the project during the construction period.
- (32) The developer must make good and/or clean any footpath, road surface or other element damaged or soiled by the development to the satisfaction of the Council's Municipal Engineer.

THE FOLLOWING ADVICE APPLIES TO THIS PERMIT:

- A. This permit does not imply that any other approval required under any other legislation or by-law has been granted.
- B. The owner is advised that an engineering plan assessment and inspection fee of 1% of the value of the approved engineering works (minimum of \$300.00), or as otherwise specified in Council's Schedule of Fees, must be paid to Council prior to the approval of engineering plans.
- C. This planning approval shall lapse at the expiration of two (2) years from the date of the commencement of planning approval if the development for which the approval was given has not been substantially commenced. Where a planning approval for a development has lapsed, an application for renewal of a planning approval for that development shall be treated as a new application.

DECISION:

5.2 APPLICATION UNDER BRIGHTON INTERIM PLANNING SCHEME 2015 – DA2020/416 – 27 RIVIERA DRIVE, OLD BEACH MULTIPLE DWELLINGS (1 ADDITIONAL):

Type of Report:	Planning Authority - For Decision
Application No:	DA 2020/416
Address:	27 Riviera Drive, Old Beach
Applicant:	Bryden Homes Pty Ltd
Proposal:	Multiple Dwellings (1 additional)
Zone:	General Residential Zone
Representations:	One (1)
Discretion:	1. Building Envelope D10.4.2 A3 2. Private Open Space 3. Privacy 4. Waste Storage for Multiple Dwellings
Attachments:	A – Plans (See pages 140 - 154) B – TasWater Span
Author:	Senior Planner (Joanne Blackwell)

1. Executive Summary

- 1.1. Planning approval is sought for Multiple Dwellings (1 additional) in the General Residential Zone at 27 Riviera Drive, Old Beach.
- 1.2. The application is discretionary due to reliance on performance criteria.
- 1.3. One (1) representation was received. It is considered that the issues raised in the representations warrant modification of the proposal to include conditions for additional privacy screening on the north eastern facing deck.
- 1.4. The key planning issues relate to reliance on performance criteria in relation building envelope, private open space, privacy and waste storage.
- 1.5. The proposal is recommended for approval subject to conditions.
- 1.6. The final decision must be made by the Planning Authority or by full Council acting as a planning authority due to the receipt of representations via the public exhibition period for the development application.

2. Legislative & Policy Content

- 2.1. The purpose of this report is to enable the Planning Authority to determine application DA 2020/416.
- 2.2. This determination must be made no later than 20th April 2021, which has been extended beyond the statutory timeframe with the consent of the applicant.
- 2.3. The relevant legislation is the *Land Use Planning and Approvals Act 1993 (LUPAA)*. The provisions of LUPAA require a planning authority to take all reasonable steps to ensure compliance with the planning scheme.
- 2.4. This report details the reasons for the officer recommendation. The Planning Authority must consider this report but is not bound to adopt the recommendation. Broadly, the Planning Authority can either: (1) adopt the recommendation, or (2) vary the recommendation by adding, modifying or removing recommended reasons and conditions or replacing an approval with a refusal (or vice versa). Any alternative decision requires a full statement of reasons to comply with the *Judicial Review Act 2000* and the *Local Government (Meeting Procedures) Regulations 2015*.
- 2.5. This report has been prepared with appropriate regard to the State Policies that apply under the *State Policies and Projects Act 1993*.
- 2.6. This report has been prepared with appropriate regard to Council's Strategic Plan and other Council policies, and the application is not found to be inconsistent with these. Nevertheless, it must be recognised that the planning scheme is a regulatory document that provides the overriding consideration for this application. Matters of policy and strategy are primarily a matter for preparing or amending the planning scheme.

3. Risk & Implications

- 3.1. Approval or refusal of this application will have no direct financial implications for the Planning Authority.
- 3.2. No specific implications for Council asset maintenance or renewal or need for new capital works have been identified.

4. Relevant Background and Past Applications

- 4.1. DA 2016/12 - Dwelling - No Permit Required - 10/2/2016

5. Site Detail

- 5.1. The subject site is located on the northern side of Riviera Drive, Old Beach, opposite the Hannah Court intersection, and approximately 125m east of the Jye Court intersection. The site is located on the crest of the hill, with the site falling steeply along the north eastern boundary.
- 5.2. A dwelling has been constructed in the southern portion of the lot (Figure 1). There is no significant vegetation identified on site.



Figure 1: Aerial View (source: www.thelist.tas.gov.au)

- 5.3. As shown in Figure 2, the site is located in an area of land zoned General Residential, with low density residential land located to the south west. Land to the east of Old Beach Road is zoned Rural Resource. There are no overlays applicable to the site.



Figure 2: Zoning Map (source: www.thelist.tas.gov.au)

6. Proposal

- 6.1. The proposal is for an additional dwelling to be constructed in the northern section of the site. The proposal is for a single storey brick dwelling with iron Colorbond sheet roofing and a north easterly facing deck. The plans show an open plan living/kitchen/dining area, and three bedrooms (master with ensuite), and the usual amenities. Three additional car parking spaces are shown in the centre of the site, two being provided for the use of the occupants of the second dwelling and a visitor parking space.

- 6.2. The application is supported by the attached building design plans.

7. Assessment against planning scheme provisions

- 7.1. The Zone Purpose

1.5.1 The zone purpose statements for the residential zone are:

- 10.1.1.1 To provide for residential use or development that accommodates a range of dwelling types at suburban densities, where full infrastructure services are available or can be provided.

- 10.1.1.2 To provide for compatible non-residential uses that primarily serve the local community.
- 10.1.1.3 To provide for the efficient utilisation of services.
- 7.1.2 The proposal accords with the zone purpose statements.
- 7.2. The following provisions are relevant to the proposed use and development:
 - General Residential Zone
 - E5.0 – Road and Railway Assets Code
 - E6.0 – Parking and Access Code
 - E7.0 – Stormwater Management Code
- 7.3. The following standards are not applicable to this application:
 - 10.3 Use Standards (non-residential use, visitor accommodation and local shop).
- 7.4. The application satisfies the following Acceptable Solutions:
 - 10.4.1 A1 Residential Density
 - 10.4.2 A1 and A2 Setbacks
 - 10.4.3 A1 Site coverage and Private Open Space
 - 10.4.4 A1, A2 and A3 Sunlight and Overshadowing for all Dwellings
 - 10.4.5 A1 Width of openings for garages and carports for all dwellings
 - 10.4.6 A1, A2 and A3 Privacy for all dwellings
 - 10.4.7 A1 Frontage fences
 - E5.0 Road and Railway Assets Code (entire code)
 - E6.0 Parking and Access Code (entire code)
 - E7.0 Stormwater Management Code (entire code)
- 7.5. The following discretions are invoked:
 - 10.4.2 A3 Building Envelope

- 10.4.3 A2 Private Open Space
- 10.4.6 A1 Privacy
- 10.4.8 A1 Waste storage for Multiple Dwellings.

7.6. **Discretion 1 - Building Envelope 10.4.2 A3**

7.6.1 The acceptable solution requires construction within a specified building envelope, as shown in Figure 3.

Diagram 10.4.2A. Building envelope as required by subclause 10.4.2 A3 (a)

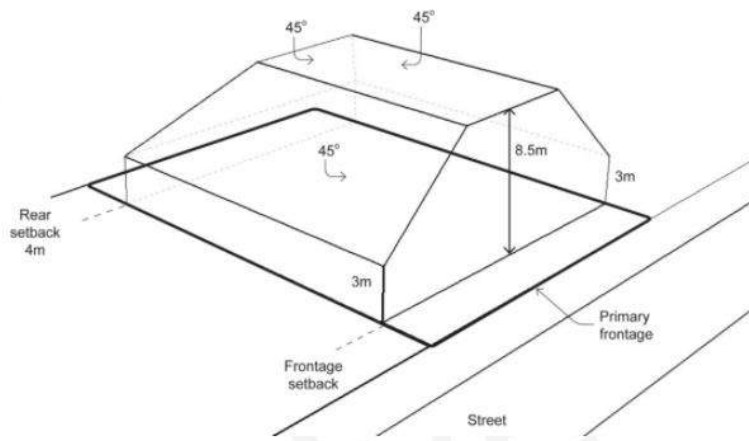


Figure 3: Diagram 10.4.2A - Building Envelope

7.6.2 The proposal plans show a 3m rear setback. Accordingly, the acceptable solution cannot be satisfied and the performance criteria must be addressed.

7.6.3 The performance criteria requires that the proposal address the following:

P3 *The siting and scale of a dwelling must:*

(a) *not cause unreasonable loss of amenity by:*

- reduction in sunlight to a habitable room (other than a bedroom) of a dwelling on an adjoining lot; or*
- overshadowing the private open space of a dwelling on an adjoining lot; or*
- overshadowing of an adjoining vacant lot; or*
- visual impacts caused by the apparent scale, bulk or proportions of the dwelling when viewed from an adjoining lot; and*

(b) *provide separation between dwellings on adjoining lots that is compatible with that prevailing in the surrounding area.*

7.6.4 Shadow diagrams show that there will not be an unreasonable loss of amenity caused by reduction in sunlight to habitable rooms or private open space of adjoining lots due to the orientation of the lots. Further, the topography assists to reduce any impact, given the fall across the subject site.

7.6.5 There are no adjoining vacant lots.

7.6.6 The additional dwelling is a single storey dwelling with a floor area of 110.94m². The dwelling has a maximum building height of 5.6m above natural ground level. Extensive use of windows helps to minimise visual bulk.

7.6.7 The separation between dwellings on adjoining lots is considered to be similar to that in the prevailing area.

7.6.8 Accordingly, the performance criteria can be satisfied.

7.7 Discretion 2 - Private Open Space 10.4.3 A2

7.7.1 The acceptable solution requires that

A2 A dwelling must have an area of private open space that:

(a) *is in one location and is at least:*

(i) *24 m²; or*

(ii) *12 m², if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8 m above the finished ground level (excluding a garage, carport or entry foyer); and*

(b) *has a minimum horizontal dimension of:*

(i) *4 m; or*

(ii) *2 m, if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8 m above the finished ground level (excluding a garage, carport or entry foyer); and*

(c) *is directly accessible from, and adjacent to, a habitable room (other than a bedroom); and*

(d) *is not located to the south, south-east or south-west of the dwelling, unless the area receives at least 3 hours of sunlight to*

50% of the area between 9.00am and 3.00pm on the 21st June;
and

- (e) *is located between the dwelling and the frontage, only if the frontage is orientated between 30 degrees west of north and 30 degrees east of north, excluding any dwelling located behind another on the same site; and*
- (f) *has a gradient not steeper than 1 in 10; and*
- (g) *is not used for vehicle access or parking.*

7.7.2 The proposal is able to satisfy the criteria contained in A2(b)-(g) inclusive. However, the deck (15m²) does not satisfy A2(a). Therefore, the performance criteria must be addressed.

7.7.3 The performance criteria require:

P2 A dwelling must have private open space that:

- (a) *includes an area that is capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children's play and that is:*
 - (i) *conveniently located in relation to a living area of the dwelling; and*
 - (ii) *orientated to take advantage of sunlight.*

7.7.4 The proposed deck is situated on the north eastern side of the dwelling, directly adjacent to the living area. The deck's location is situated to take advantage of sunlight. Further, an additional (approx. 300sqm) area of private open space is available at ground level for use of the occupants.

7.7.5 The performance criteria can be satisfied.

7.8 Discretion 3 - Privacy - D10.4.6 A1

7.8.1 The acceptable solution for D10.4.6 A1 requires:

A1 A balcony, deck, roof terrace, parking space, or carport (whether freestanding or part of the dwelling), that has a finished surface or floor level more than 1 m above natural ground level must have a permanently fixed screen to a height of at least 1.7 m above the finished surface or floor level, with a uniform transparency of no more than 25%, along the sides facing a:

- (a) *side boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of at least 3 m from the side*

boundary; and

- (b) rear boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of at least 4 m from the rear boundary; and*
- (c) dwelling on the same site, unless the balcony, deck, roof terrace, parking space, or carport is at least 6 m:
 - (i) from a window or glazed door, to a habitable room of the other dwelling on the same site; or*
 - (ii) from a balcony, deck, roof terrace or the private open space, of the other dwelling on the same site.**

7.8.2 The proposal shows a setback for the northern-most corner of the proposed deck of 2.1m, increasing to 4m at the southern corner. The finished surface level of the deck at its highest point is approximately 1.75m. Approximately 2m of the deck is proposed to be within the 3m setback required by the acceptable solution.

7.8.3 Accordingly, the performance criteria must be addressed, which requires:

P1 A balcony, deck, roof terrace, parking space or carport (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1 m above natural ground level, must be screened, or otherwise designed, to minimise overlooking of:

- (a) a dwelling on an adjoining lot or its private open space; or*
- (b) another dwelling on the same site or its private open space; or*
- (c) an adjoining vacant residential lot.*

7.8.4 As evidenced in Figure 2 herein, lots along Riviera Drive are large, with dwellings generally developed in the front half of each site. The topography of the site lends itself to overlooking, even at natural ground level, given the sharp drop along the north eastern boundary of the site. (Refer Figure 4).



Figure 4. Ground level view (source: Google Earth Pro). The dividing fence line between 27 and 29 Riviera Drive is shown in the centre right of the image. Red pin shows approximate location of existing dwelling.

7.8.5 It is considered that the performance criteria can be satisfied by imposing a condition on any permit approved requiring screening along the north eastern edge of the deck, where the deck is within 3m of the boundary, at a minimum. The screening should be a minimum of 1.7m high, and have a maximum uniform transparency of 25% in accordance with the acceptable solutions.

7.9 Discretion 4 - Waste Storage - D10.4.8 A1

7.9.1 The acceptable solution in clause 10.4.8 A1 requires:

A1 A multiple dwelling must have a storage area, for waste and recycling bins, that is an area of at least 1.5 m² per dwelling and is within one of the following locations:

- (a) in an area for the exclusive use of each dwelling, excluding the area in front of the dwelling; or*
- (b) in a communal storage area with an impervious surface that:
 - (i) has a setback of at least 4.5 m from a frontage; and*
 - (ii) is at least 5.5 m from any dwelling; and*
 - (iii) is screened from the frontage and any dwelling by a wall to a height of at least 1.2 m above the finished surface level of the storage area.**

7.9.2 The proposal has not addressed this standard. The performance criteria, requires therefore:

P1 A multiple dwelling development must provide storage, for waste and recycling bins, that is:

- (a) capable of storing the number of bins required for the site; and*
- (b) screened from the frontage and dwellings; and*
- (c) if the storage area is a communal storage area, separated from dwellings on the site to minimise impacts caused by odours and noise.*

7.9.3 There is sufficient land area available on site for each dwelling to provide for a storage area for waste and recycling bins. It is recommended that a condition be included in any permit approved, requiring that a storage area is created for the exclusive use of each dwelling, behind the building line of the dwelling.

7.9.4 The performance criteria can be satisfied through the above condition.

8 Discussion

8.1 Referrals

8.1.1 TasWater

TasWater have imposed the attached conditions that must be included in any permit granted.

8.1.2 Council's Technical Officer

8.1.2.1 The application was referred to council's senior technical officer. That officer's comments are included within the body of this report, where applicable. Standard conditions relating to stormwater management and parking and access have been included.

Concerns raised by Representors

8.2 The following table outlines the issues raised by representor.

Planning Concern	Planning Response
Privacy concerns regarding the proposed dwelling and deck overlooking into yard.	Refer to paragraph 7.8

9 Section 35K(1)(a)

9.1 On 3 February 2021, Council received a notice from the Tasmanian Planning Commission under Section 35(K)(1)(a) of the Land Use Planning and Approvals Act 1993 to modify a draft Local Provisions Schedule (LPS).

9.2 Section 35(K)(2)(d) relevantly states:

If a planning authority is directed under subsection (1)(a) to modify a draft LPS

–

(a) ...

(b) ...

(c) ...

(d) the planning authority must not issue a permit, or do any other thing that would, if the draft LPS as modified were an LPS, be a contravention of the LPS.

9.3 The application has been assessed against the provisions of the draft LPS (as modified), and it is concluded that the application does not conflict with those provisions.

9.4 Should Council determine to issue a permit, it is the Officer's opinion that the Planning Authority's decision would not be in contravention of the Brighton draft LPS and would therefore satisfy the requirements of Section 35K(2)(d) of the Act.

10 Conclusion

10.1 The proposed use and development of *Multiple Dwellings (1 additional)* in *General Residential Zone at 27 Riviera Drive, Old Beach* satisfies the relevant provisions of the *Brighton Interim Planning Scheme 2015*, and as such is recommend for approval.

11 Recommendations

That: A. Pursuant to the *Brighton Interim Planning Scheme 2015*, Council approve application DA-2020/416 for use and development of Multiple Dwellings (1 additional) in the General Residential Zone at 27 Riviera Drive, Old Beach, for the reasons outlined in the officer's report and a permit containing the following conditions be issued:

(1) The use or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.

- (2) This permit shall not take effect and must not be acted on until 15 days after the date of receipt of this letter or the date of the last letter to any representor, whichever is later, in accordance with section 53 of the *Land Use Planning and Approvals Act 1993*.

Amenity

- (3) All external metal building surfaces must be clad in non-reflective pre-coated metal sheeting or painted to the satisfaction of the Manager Development Services.

Private open space

- (4) The private open space must be formed or constructed to the satisfaction of Council's Manager Development Services before the use commences.

Privacy

- (5) Where the deck is setback less than 3m from the north eastern boundary, a 1.7 metre high screen, with a uniform transparency of no more than 25 per cent must extend southerly from the northern corner of the deck. Plans showing compliance with this condition must be submitted to and approved by Council's Manager Development Services prior to commencement of the development.
- (6) The privacy screening must remain in situ for the lifetime of the deck.

Landscaping

- (7) Before any work commences submit a landscape plan prepared by a suitably qualified person for approval by Council's Manager Development Services. The landscape plan must include:
 - (a) A survey of all existing vegetation to be retained and/or removed.
 - (b) Landscaping for the entirety of the site.
 - (c) Lighting,
 - (d) Waste storage. Waste storage must:
 - (i) have a minimum area of 1.5m² per dwelling,
 - (ii) be for the exclusive use of each dwelling, and
 - (iii) not be located between the road frontage and the building line.
 - (d) Details of surface finishes of paths and driveways.

- (e) Details of fencing including private open space for each dwelling.
- (f) A planting schedule of all proposed trees, shrubs and ground covers including botanical names, common names, pot sizes, sizes at maturity and quantities of each plant. Feature trees must be a minimum of 1.5m high at the time of planting.
- (g) Landscaping and planting within all open areas of the site.
- (8) Planting must bear a suitable relationship to the proposed height of the buildings and must not use species listed as noxious weeds within Tasmania, displaying invasive characteristics or unsuitable for fire prone areas. If considered satisfactory, the landscape plan will be endorsed and will form part of this permit.
- (9) Prior to commencement of use, all trees and landscaping must be planted and installed in accordance with the approved Landscaping Plan to the satisfaction of the Council's Manager Development Services. Evidence showing compliance with this condition must be submitted to and approved by the Manager Development Services within 30 days of planting.
- (10) Replacement trees and landscaping in accordance with the approved Landscaping Plan must be planted if any is lost. All landscaping must continue to be maintained to the satisfaction of Council.

Fencing

- (11) Any front fence must have a height above natural ground level of not more than:
 - (a) 1.2m, if the fence is solid; or
 - (b) 1.8m, if the fence has openings above a height of 1.2m which provide a uniform transparency of not less than 30%.

Services

- (12) The developer must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the development. Any work required is to be specified or undertaken by the authority concerned.

Parking & Access

- (13) The existing concrete vehicle access must be widened to a minimum width of 5.5m from Riviera Drive to the property boundary in accordance with;

- (a) Councils Standard Drawings;
- (b) Standards Australia (2004): Australian Standard AS 2890.1 - 2004 - Parking Facilities Part 1: Off Street Car Parking; Standards Australia, Sydney;

and to the satisfaction of Council's Municipal Engineer.

- (14) At least five (5) parking spaces must be provided on the land at all times for the use of the occupiers including at least two (2) car parking space per dwelling and at least one (1) designated for visitor parking, in accordance with Standards Australia (2004): Australian Standard AS 2890.1 - 2004 - Parking Facilities Part 1: Off Street Car Parking; Standards Australia, Sydney.
- (15) Unless approved otherwise by Council's Municipal Engineer the internal private driveway and areas set-aside for parking and associated access and turning must be provided in accordance the endorsed drawings, Standards Australia (2004): Australian Standard AS 2890.1 - 2004 - Parking Facilities Part 1: Off Street Car Parking; Standards Australia, Sydney and include all of the following:
 - (a) A minimum trafficable width of 3m
 - (b) Passing bays 5.5m wide by 6.0m long located at the road and every 30m
 - (c) Constructed with a durable all weather pavement.
 - (d) Drained to an approved stormwater system.
 - (e) Surfaced with concrete, asphalt or pavers.
 - (f) Provision for two way traffic.
- (16) The completed parking and associated turning areas and access must be certified by a practicing civil engineer to the effect that they have been constructed in accordance with the endorsed drawings and specifications approved by Council before the use commences.
- (17) All areas set-aside for parking and associated turning, and access must be completed before the use commences and must continue to be maintained to the satisfaction of the Council's Municipal Engineer.

Access to Public Road

ADVICE: Works on or affecting any Council road reservation are to be carried out in accordance with the endorsed plans and Council's Guidelines for Works Within The Road Reservation and to the

satisfaction of Council's Municipal Engineer. The applicant must provide a minimum of 48 hours notice to Council's Asset Services department prior to commencing any works within the road reservation.

Stormwater

- (18) Drainage from the proposed development must drain to the public stormwater system to the satisfaction of Council's Municipal Engineer and in accordance with a Plumbing permit issued by the Permit Authority in accordance with the Building Act 2016.

Advice: Roof runoff must be collected in rainwater tanks with the tank overflow directed to the public stormwater system.

- (19) The developer must provide a minor stormwater drainage system designed to comply with all of the following:
- a) be able to accommodate a storm with an ARI of 20 years when the land serviced by the system is fully developed;
 - b) stormwater runoff will be no greater than pre-existing runoff or any increase can be accommodated within existing or upgraded public stormwater infrastructure
- (20) The driveways must be drained to minimise surface runoff over the footpath or to the adjoining road in accordance with the requirements of the Municipal Engineer and a Plumbing Permit issued by the Permit Authority in accordance with the Building Act 2016.

TasWater

- (21) The use and/or development must comply with the requirements of TasWater, as detailed in the form Submission to Planning Authority Notice, Reference No TWDA 2020/02008-BTN dated 3rd December 2020, as attached to this permit.

Soil and Water Management

- (22) Before any work commences install temporary run-off, erosion and sediment controls in accordance with the recommendations of the approved SWMP and maintain these controls at full operational capacity until the land is effectively rehabilitated and stabilised after completion of the development in accordance with the guidelines Soil and Water Management on Building and Construction Sites, by the Derwent Estuary Programme and NRM South and to the satisfaction of Council's General Manager.

Construction amenity

- (23) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager Development Services:
- Monday to Friday 7:00 a.m. to 6:00 p.m.
 - Saturday 8:00 a.m. to 6:00 p.m.
 - Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.
- (24) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
- (a) Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - (b) The transportation of materials, goods and commodities to and from the land.
 - (c) Obstruction of any public footway or highway.
 - (d) Appearance of any building, works or materials.
- (25) Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site will be permitted unless approved in writing by the Council's Manager Development Services.
- (26) Public roadways or footpaths must not be used for the storage of any construction materials or wastes, for the loading/unloading of any vehicle or equipment; or for the carrying out of any work, process or tasks associated with the project during the construction period.
- (27) The developer must make good and/or clean any footpath, road surface or other element damaged or soiled by the development to the satisfaction of the Council's Municipal Engineer.

THE FOLLOWING ADVICE APPLIES TO THIS PERMIT:

- A. This permit does not imply that any other approval required under any other legislation or by-law has been granted.
- B. Separate approval is required for the strata division of the land.

- C. This planning approval shall lapse at the expiration of two (2) years from the date of the commencement of planning approval if the development for which the approval was given has not been substantially commenced. Where a planning approval for a development has lapsed, an application for renewal of a planning approval for that development shall be treated as a new application.

DECISION:

5.3 APPLICATION UNDER BRIGHTON INTERIM PLANNING SCHEME 2015- DA 2020/178 – 7 WALLACE STREET, BRIDGEWATER PLEASURE BOAT FACILITY (HOVERCRAFT):

- Type of Report:** Planning Authority – For Decision
- Application No:** DA 2020/178
- Address:** 7 Wallace Street, Bridgewater
- Proposal:** Pleasure Boat Facility (Hovercraft)
- Zone:** Rural Resource Zone
General Residential Zone
Open Space Zone
Utilities Zone
Environmental Management Zone
- Representations:** Two (2)
- Discretions:**
1. Use - Pleasure Boat Facility (Use Table 26.2)
 2. Discretionary use (26.3.3)
 3. Setbacks (26.4.2 A2)
 4. Setback to Environmental Management Zone (26.4.2 A4)
 5. Use Vehicle Parking (Use Table 19.2)
 6. Discretionary Use in Open Space Zone (19.3.5)
 7. Setback from Residential Zone (19.4.2)
 8. Landscaping on residential zone boundary (19.4.3 A2)
 9. Building and works within Waterway and Coastal Protection Area (E11.7.1 A1)
 10. Coastal Inundation Low Hazard Areas (E15.7.3 A3)
 11. Building and works within Coastal Erosion Hazard Code (E16.7.1 A1)
 12. Existing Road access and Junctions (E5.5.1 A3)
 13. Development adjacent to Road and Railways (E5.6.1 A1)
 14. Pleasure Boat Facility (Use Table 29.2)
 15. Use standards for reserved land (29.3.1 A1)
 16. Parking and Access Code (Surfacing E6.7.6 A1)
 17. Parking and Access Code (Landscaping E6.7.8 A1)
- Attachments:** A – Plans & Documentation (See pages 155 - 297)
B – Crown consent
- Author:** Manager Development Services (David Allingham)

Executive Summary

- 1.1 Planning approval is sought for a Pleasure Boat Facility (Hovercraft) at 7 Wallace Street, Bridgewater (the 'site'). The development site is located within the Rural Resource Zone, Utilities Zone and Open Space Zone of the *Brighton Interim Planning Scheme 2015* (the 'Interim Scheme').
- 1.2 The application is known as DA 2020/178. The application is discretionary and relies on Performance Criteria. The key issues relate to use, setbacks and access over the State Rail Network.
- 1.3 Two (2) representations were received within the statutory public advertising period, with concerns relating to road safety and the development's impact on the adjoining bird sanctuary.
- 1.4 The application is recommended for approval, subject to non-standard conditions.
- 1.5 The final decision is delegated to the Planning Authority or by full Council acting as a planning authority.

2. Legislative & Policy Content

- 2.1 The purpose of this report is to enable the Planning Authority to determine application DA 2020/178.
- 2.2 This determination must be made no later than 20 April 2021. The statutory assessment period has been extended to this date with the consent of both the applicant and the Planning Authority.
- 2.3 The relevant legislation is the *Land Use Planning and Approvals Act 1993* (the 'Act'). The provisions of the Act require a planning authority to take all reasonable steps to ensure compliance with the planning scheme.
- 2.4 This report details the reasons for the officer recommendation. The Planning Authority must consider this report but is not bound to adopt the recommendation. Broadly, the Planning Authority can either: (1) adopt the recommendation, or (2) vary the recommendation by adding, modifying or removing recommended reasons and conditions or replacing an approval with a refusal (or vice versa). Any alternative decision requires a full statement of reasons to comply with the *Judicial Review Act 2000* and the *Local Government (Meeting Procedures) Regulations 2015*.
- 2.5 This report has been prepared with appropriate regard to the State Policies that apply under the *State Policies and Projects Act 1993*.

- 2.6 This report has been prepared with appropriate regard to Council's Strategic Plan and other Council policies, and the application is not found to be inconsistent with these. Nevertheless, it must be recognised that the planning scheme is a regulatory document that provides the overriding consideration for this application. Matters of policy and strategy are primarily a matter for preparing or amending the planning scheme.

3. Risk & Implications

- 3.1 Approval or refusal of this application will have no direct financial implications for the Planning Authority, unless the decision is appealed.
- 3.2 Implications for Council include general matters related to rate income, asset maintenance and renewal and responding to future building applications.

4. Relevant Background

- 4.1 None relevant.

5. Site Detail

- 5.1 The subject site is the land contained at 7 Wallace Street, Bridgewater, as shown in Figure 1. The subject site comprises three Certificates of Title:
- 5.1.1 Certificate of Title Volume 31371 Folio 1. This lot is zoned Utilities and is to be used for vehicle access to the Open Space Zone. It has a total land area of 4060 square metres (sqm) and can be directly accessed from Wallace Street.
- 5.1.2 Certificate of Title Volume 175791 Folio 1, which is the lot zoned Open Space identified for visitor parking. This lot has a total land area of 1224sqm and has the benefit of an easement providing right of carriageway varying between 3.05m and 3.66m wide over Sealed Plan SP 199710.
- 5.1.3 Certificate of Title Volume 199710 Folio 1 is the dominant lot for the proposed development. It is zoned Rural Resource and has a land area of 1.429ha. This lot comprises the existing dwelling and hothouses.



Figure 1: Development site (Source: Listmap)

- 5.2 Access to the site is from Boyer Road, into Wallace Street as shown in the top right corner of Figure 1. A short distance south of the intersection, Wallace Street crosses the rail line twice before terminating in the Utilities Zoned land comprised in Certificate of Title Volume 31371 Folio 1. A right of way exists from the western end of Wallace Street to the Open Space zone, burdening the Rural Resource Zoned lot (refer figure 2).
- 5.3 The site is complex with numerous titles, different zones, many overlays and access through the State Rail network. The hovercraft will also be launched into the Derwent River which is in the Environmental Management Zone. Figure 2 Shows the various zonings applying to the site and adjoining properties, whilst Figure 3 shows mapped overlays. Overlays include Waterway and Coastal Protection Code; Coastal Inundation Hazard Code, Coastal Erosion Hazard Code. As is the case with all applications, the proposal is also required to address the standards contained within unmapped Codes, such as Road and Railway Assets Code, Parking and Access Code and Stormwater Management Code.



Figure 2: Zoning Map - Red - General Residential Zone; Green Open Space Zone; Beige - Rural Resource Zone; Yellow - Utilities Zone, Blue - Environmental Management Zone (including wetlands to the north and Derwent River).



Figure 3: Mapped Overlays.

- 5.4 The site was previously used for agricultural purposes (commercial scale tomato farm). The supporting planning report identifies that there were originally a large number of hothouses across the site (approximately 8500sqm) which were used for this purpose. Google Earth Pro shows that a number of the hothouses appear to have been dismantled over time. A dwelling also forms part of the development on the site. The submitted site plan is shown in Figure 4.

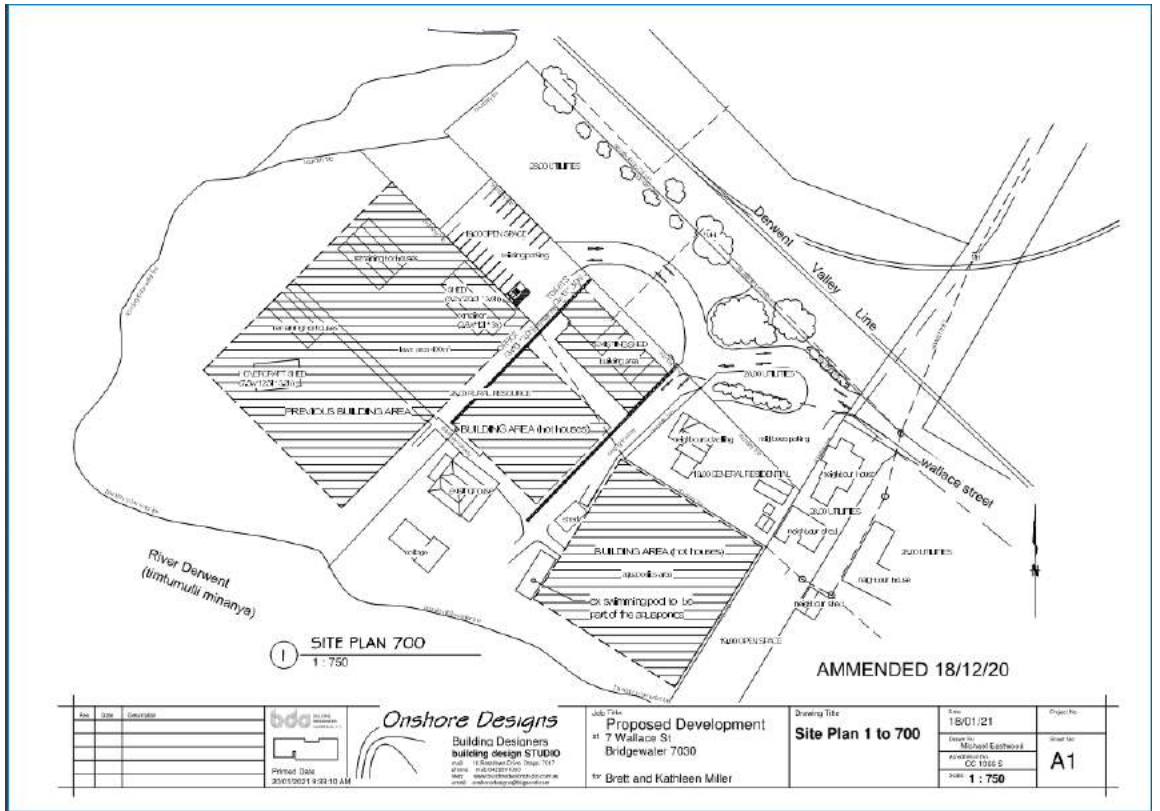


Figure 4: Site Plan

5.5 The proposal includes launching the hovercraft into the Derwent River which is within the Environmental Management Zone (EMZ) in the Brighton Interim Planning Scheme 2015. However, it should be noted that other than launching of the hovercraft the majority of the tours are within waters administered under the Derwent Valley Interim Planning Scheme 2015 and managed by Parks & Wildlife Service (See Figure 5 below).



Figure 5: The part of the Derwent River highlighted yellow is administered under the Derwent Valley Interim Planning Scheme 2015.

6. Proposal

6.1 The supporting planning report which forms part of the assessment documents sets out in detail the works proposed to be undertaken, with vehicle parking for 19 spaces to be provided on the land contained in Certificate of Title Volume 175791 Folio 1.

6.2 In essence, the applicant proposes:

- construction of a 12.55 x 7.5m building to house the hovercraft;
- construction of a 20 x 9.2m building for the bumper car ride;
- 12 x 2.4m container for storage of bumper cars;
- Inflatable jumping castle, inflatable slide;
- office 6 x 3m;
- toilets 6 x 3m;

7. Assessment

7.1 The *Brighton Interim Planning Scheme 2015* is a performance-based planning scheme.

7.2 To meet an applicable standard, a proposal must demonstrate compliance with either an Acceptable Solution or a Performance Criterion. Where a proposal complies with a standard by relying on one or more Performance Criteria, the Council may approve or refuse the proposal on that basis. The ability to refuse the proposal relates only to the Performance Criteria relied upon.

8. Assessment against planning scheme provisions

8.1 The following provisions are relevant to the assessment of the proposed use and development:

- Part D – Section 26.0 - Rural Resource Zone
- Part D – Section 28.0 - Utilities Zone
- Part D – Section 19.0 - Open Space Zone
- Part D – Section 29.0 – Environmental Management Zone
- Part E – Section E5.0 – Road and Railway Assets Code
- Part E – Section E6.0 – Parking and Access Code
- Part E – Section E7.0 – Stormwater Management Code
- Part E – Section 11.0 - Waterway and Coastal Protection Code
- Part E – Section 15.0 - Inundation Prone Areas Code
- Part E – Section 16.0 - Coastal Erosion Hazards Code

8.2 The application satisfies the following relevant Acceptable Solutions of the applicable provisions:

Rural Resource Zone

- Section 26.3.1 A1 - Sensitive Use
- Section 26.3.2 A1 - Visitor Accommodation
- Section 26.4.1 A1 – Building height
- Section 26.4.2 A1 - Front Setback, A3 Sensitive Use
- Section 26.4.3 A1, A2, A3 – Design
- Section 26.4.4. A1 – Plantation Forestry

Open Space Zone

- Section 19.3.1 A1 – Operating Hours
- Section 19.3.2 A1, A2 – Noise
- Section 19.3.3 A1 – Lighting
- Section 19.3.4 A1 – Commercial vehicles
- Section 19.4.1 A1 – Building height
- Section 19.4.2 A1 - Front setback
- Section 19.4.3 A1 – Landscaping (Frontage)
- Section 19.4.4 A1 – Fencing

Environmental Management Zone

- Section 29.4 – Development Standards (all)

Utilities Zone

- Section 28.0 (Entire Code)

Waterway and Coastal Protection Code

- Code E11.7.1 A4 – Discharge Point
- Code 11.7.2 A1 – Dependent on Coastal Location
- Code E11.7.2 A2 – Dredging and reclamation
- Code E11.7.2 A3 – Coastal Protection Works

Inundation Prone Areas Code

- Code E15.6.1 A1 – Habitable Buildings
- Code E15.7.1 A1, A2 – Coastal – High Hazard
- Code E15.7.2 A1 - A3 – Coastal – Medium Hazard
- Code E17.7.3 A1, A2 – Coastal – Low Hazard
- Code E15.7.4 A1-A3 – Riverine areas
- Code E15.7.5 A1-A3 – Landfill, Flooding, onsite wastewater
- Code E15.7.6 A1 – A3 – Works Dependent on Coastal Location

Coastal Erosion Hazards Code

- Code E16.6.1 A1 – Use
- Code E16.7.2 A1 – Extensions to jetties, etc
- Code E16.7.2 A2 – Dredging
- Code E16.7.2 A3 – Coastal Protection works

Parking and Access Code

- Code E6.0 - Entire Code

Stormwater Management Code

- E7.0 - Entire Code

Road and Railway Assets Code

- E.5.0 – Entire code, except E5.6.1 A1

8.3 The following discretions are invoked by the proposal:

Rural Resource Zone

- Section 26.2 – Use Table
- Section 26.3.3 A1 – Discretionary use
- Section 26.4.2 A2 –Setbacks

- Section 26.4.2 A4 – Setback to Environmental Management Zone (EMZ)

Open Space Zone

- Section 19.2 – Use Table
- Section 19.3.5 A1 – Discretionary Use
- Section 19.4.2 A2 – Setback from Residential Zone
- Section 19.4.3 A2 – Landscaping adjoining residential zone

Environmental Management Zone

- Section 29.2 – Use Table
- Section 29.3.1 A1 – Use Standards for Reserved Land

Waterway and Coastal Protection Code

- Code E11.7.1 A1 - Works within WCP area

Coastal Inundation Code

- Code E15.7.3 A3 – Building and works within Low overlay

Coastal Erosion Hazard Code

- Code E16.7.1 A1 – Buildings and works within CEH Area

Road and Railway Assets Code

- Code E5.5.1 A3 – Existing road accesses and junctions
- Code E5.6.1 A1 – Development Adjacent to Roads and Railways

Parking and Access Code

- Code E6.7.6 A1 – Surfacing
- Code E6.7.8 A1 – Landscaping

8.4 Discretion 1 – Use – Pleasure boat facility (Use Table 26.2 - RRZ)

- 8.4.1 The application is considered to be a “Pleasure boat facility”, which is a discretionary use in Use Table 26.2 of the Rural Resource Zone (RRZ) and is defined as:

use of land to provide facilities for boats operated primarily for pleasure or recreation, including boats operated commercially for pleasure or recreation. An example is a marina.

The dodgem car and children’s party component of the application is considered as ‘not directly related yet subservient’.

- 8.4.2 The Zone Purpose must be considered when assessing a Discretionary Use.

- 26.1.1.1 *To provide for the sustainable use or development of resources for agriculture, aquaculture, forestry, mining and other primary industries, including opportunities for resource processing.*
- 26.1.1.2 *To provide for other use or development that does not constrain or conflict with resource development uses.*
- 26.1.1.3 *To provide for non-agricultural use or development, such as recreation, conservation, tourism and retailing, where it supports existing agriculture, aquaculture, forestry, mining and other primary industries.*
- 26.1.1.4 *To allow for residential and other uses not necessary to support agriculture, aquaculture and other primary industries provided that such uses do not:*
- (a) fetter existing or potential rural resource use and development on other land;*
 - (b) add to the need to provide services or infrastructure or to upgrade existing infrastructure;*
 - (c) contribute to the incremental loss of productive rural resources.*
- 26.1.1.5 *To provide for protection of rural land so future resource development opportunities are not lost.*

The proposal is to revitalise the existing agricultural use on a smaller scale and to introduce a new non-agricultural use which will not fetter the existing agricultural use.

The application is consistent with the Zone Purpose.

8.5 Discretion 2 – Discretionary Use standards (26.3.3 - RRZ)

- 8.5.1 The Discretionary Use standard at clause 26.3.3 of the application applies. There is no Acceptable Solution (AS), so the application must be assessed under the Performance Criteria (PC):

A discretionary non-agricultural use must not conflict with or fetter agricultural use on the site or adjoining land having regard to all of the following:

- (a) the characteristics of the proposed non-agricultural use;*
- (b) the characteristics of the existing or likely agricultural use;*

- (c) *setback to site boundaries and separation distance between the proposed non-agricultural use and existing or likely agricultural use;*
- (d) *any characteristics of the site and adjoining land that would buffer the proposed non-agricultural use from the adverse impacts on amenity from existing or likely agricultural use.*

8.5.2 The proposal includes revitalising the aquaponics use that used to operate from the site. Other than “controlled environment agriculture” the site has no agricultural potential.

8.5.3 The proposed non-agricultural uses on the site will not conflict or fetter the agricultural use.

8.5.4 There is no existing or potential agricultural land on the site or adjoining land.

8.5.5 The proposal satisfies the Performance Criteria.

8.6 Discretion 3 - Setbacks (26.4.2 A2 - RRZ)

8.6.1 The Acceptable Solution for side and rear setback in the RRZ is 50m. Three proposed buildings are within 50m of a side or rear boundary. The hovercraft shed is a minimum of approximately 36m from the west side boundary and 39m from the rear south boundary. The conjoined Bumper car shed and container are a minimum of 1.5m from the side boundary adjoining the OSZ lot and approximately 49m from the side boundary shared with 6 Wallace St.

8.6.2 As such, the application invokes discretion for this standard, and must be assessed against the relevant Performance Criteria.

Building setback from side and rear boundaries must maintain the character of the surrounding rural landscape, having regard to all of the following:

- (a) *the topography of the site;*
- (b) *the size and shape of the site;*
- (c) *the location of existing buildings on the site;*
- (d) *the proposed colours and external materials of the building;*
- (e) *visual impact on skylines and prominent ridgelines;*
- (f) *impact on native vegetation.*

8.6.3 The proposed sheds are generally in the location of the hothouses. The site is small and constrained in size to satisfying setback standards. The sheds are generally clustered with other sheds and are open sided to reduce the visual impact. The proposed colours and materials are muted to reduce the visual impact. There is no impact on native vegetation or skylines and ridgelines.

8.6.4 The proposal satisfies the Performance Criteria.

**8.7 Discretion 4 - Setback to Environment Management Zone (EMZ)
(Clause 26.4.2 A4 - RRZ)**

8.7.1 The AS required building and works to be setback 100m from the EMZ and the proposal does not satisfy this requirement.

8.7.2 As such, the application invokes discretion for this standard, and must be assessed against the relevant Performance Criteria:

Buildings and works must be setback from land zoned Environmental Management to minimise unreasonable impact from development on environmental values, having regard to all of the following:

- (a) *the size of the site;*
- (b) *the potential for the spread of weeds or soil pathogens;*
- (c) *the potential for contamination or sedimentation from water runoff;*
- (d) *any alternatives for development.*

8.7.3 The applicant has not addressed the above PC. The hovercraft is to traverse over land from its storage facility into the water in the EMZ. The spread of weeds has not been adequately addressed and a Weed Management Plan should be provided as a condition to any permit to ensure all weeds are removed from the hovercrafts overland path.

8.7.4 The proposal meets the PC subject to conditions.

8.8 Discretion 5 - Use - Vehicle Parking (Use Table 19.2 - OSZ)

8.8.1 The parking area for the proposed operation will be located on a separate title which is in the Open Space Zone (OSZ). Vehicle parking is defined as:

use of land for the parking of motor vehicles. Examples include single and multi-storey car parks.

- 8.8.2 The Zone Purpose must be considered when assessing a Discretionary Use.

19.1.1.1 To provide land for open space purposes including for passive recreation and natural or landscape amenity.

19.1.1.2 To encourage open space networks that are linked through the provision of walking and cycle trails.

- 8.8.3 The Open Space title is a small title and of little value as an open space parcel. Whilst not entirely consistent with the Zone Purpose, vehicle parking is considered to be a satisfactory use.

8.9 Discretion 6 - Discretionary Use (19.3.5 OSZ)

- 8.9.1 The Discretionary Use standard at clause 19.3.5 of the application applies. There is no Acceptable Solution (AS), so the application must be assessed under the Performance Criteria (PC):

Discretionary use must complement and enhance the use of the land for recreational purposes by providing for facilities and services that augment and support Permitted use or No Permit Required use.

- 8.9.2 Vehicle parking use is provided within the Open Space Zone, with the primary purpose of supporting the Pleasure Boat Facility Use. Users of the site may also be able to appreciate the natural and cultural values of the area when using the car park.

- 8.9.3 The proposal satisfies the PC.

8.10 Discretion 7 - Setback from residential zone (19.4.2 A2 - OSZ)

- 8.10.1 The proposed toilet block in the OSZ is proposed to be 200mm from the boundary of the adjoining residential zone and fails to meet the AS. The toilet setback is to be assessed against PC:

Building setback from a residential zone must be sufficient to prevent unreasonable adverse impacts on residential amenity by:

- (a) overshadowing and reduction of sunlight to habitable rooms and private open space on adjoining lots to less than 3 hours between 9.00 am and 5.00 pm on June 21 or further decrease sunlight hours if already less than 3 hours;*
- (b) overlooking and loss of privacy;*

(c) *visual impact when viewed from adjoining lots taking into account aspect and slope.*

8.10.2 A large outbuilding will be directly adjacent to the proposed toilet block and there will no unreasonable adverse impact on residential amenity.

8.10.3 The proposal satisfies the PC.

8.11 Discretion 8 - Landscaping on residential zone boundary (19.4.3 A2 - OSZ)

8.11.1 The AS requires landscaping of a depth of 2m along a boundary with a residential zone. No landscaping is proposed so the application is assessed against the PC:

Along a boundary with a residential zone landscaping or a building design solution must be provided to avoid unreasonable adverse impact on the visual amenity of adjoining land in a residential zone, having regard to the characteristics of the site and the characteristics of the adjoining residentially-zones land.

8.11.2 As noted above, a large outbuilding adjoins the residential zone boundary and there will be no adverse impact on the residential zone.

8.11.3 The proposal satisfies the PC.

8.12 Discretion 9 - Building and works within Waterway and Coastal Protection (WCP) Area (E11.7.1 A1/P1)

8.12.1 The AS requires building and works within the WCP overlay to be within a building envelope. There are no building envelopes and the proposed sheds and car parking areas are partially within the overlay, so the PC applies:

Building and works within a Waterway and Coastal Protection Area must satisfy all of the following:

- (a) *avoid or mitigate impact on natural values;*
- (b) *mitigate and manage adverse erosion, sedimentation and runoff impacts on natural values;*
- (c) *avoid or mitigate impacts on riparian or littoral vegetation;*
- (d) *maintain natural streambank and streambed condition, (where it exists);*
- (e) *maintain in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;*

- (f) *avoid significantly impeding natural flow and drainage;*
- (g) *maintain fish passage (where applicable);*
- (h) *avoid landfilling of wetlands;*
- (i) *works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.*

8.12.2 A Coastal Vulnerability Assessment (CVA) was provided with the application. The CVA considered the above PC (see page 37 of CVA) and concluded that the application satisfied the PC if the below management options are implemented:

- A soil and water management plan is required if there is proposed building works at the site.
- This fringe of wetland should not be infilled.
- Works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.

8.12.3 It is recommended that conditions reflecting the management options are included on any permit issued.

8.12.4 The proposal meets the PC subject to conditions.

8.13 Discretion 10 - Coastal Inundation Low Hazard Areas (E15.7.3 A3/P3)

8.13.1 The AS requires an outbuilding within the Low Hazard Area to have a floor area of no more than 60m². The hovercraft storage shed is within the Low Hazard Area and has a floor area of 84m² and the proposal must be assessed against the PC:

A non-habitable building must satisfy all of the following:

- (a) *risk to users of the site, adjoining or nearby land is acceptable;*
- (b) *risk to adjoining or nearby property or public infrastructure is acceptable;*
- (c) *need for future remediation works is minimised;*
- (d) *provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works;*

except if it is a building dependent on a coastal location ^{R1}.

8.13.2 The CVA report considers the above and determines that the risk of Inundation is low, but recommends that:

the finished floor levels for buildings established at the site are at or above 2.2 m AHD. On this basis, there is a low risk that the floors will be inundated by 2070 based on a 1% AEP event.

It is recommended that a condition to this effect be included on a permit issued.

8.13.3 The proposal meets the PC subject to conditions.

8.14 Discretion 11 - Building and Works within Coastal Erosion Hazard Code (E16.7.1 A1/P1)

8.14.1 Building and works are proposed within low and medium hazard areas. There is no AS for this standard so it must be assessed against the PC:

Buildings and works must satisfy all of the following:

- (a) not increase the level of risk to the life of the users of the site or of hazard for adjoining or nearby properties or public infrastructure;*
- (b) erosion risk arising from wave run-up, including impact and material suitability, may be mitigated to an acceptable level through structural or design methods used to avoid damage to, or loss of, buildings or works;*
- (c) erosion risk is mitigated to an acceptable level through measures to modify the hazard where these measures are designed and certified by an engineer with suitable experience in coastal, civil and/or hydraulic engineering;*
- (d) need for future remediation works is minimised;*
- (e) health and safety of people is not placed at risk;*
- (f) important natural features are adequately protected;*
- (g) public foreshore access is not obstructed where the managing public authority requires it to continue to exist;*
- (h) access to the site will not be lost or substantially compromised by expected future erosion whether on the proposed site or off-site;*
- (i) provision of a developer contribution for required mitigation works consistent with any adopted Council Policy, prior to commencement of works;*
- (j) not be located on an actively mobile landform.*

8.14.2 The CVA considers the potential for coastal erosion and concludes the following:

- It is established that up to 25 m of coastline recession may be expected by 2070.
- As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.

8.14.3 The conclusion of the CVA is accepted, however it is noted that the CVA report and the site plan show the location of the hovercraft shed in different locations. A condition should be included in any permit granted that requires the CVA to be amended to assess the suitability of the location of the hovercraft shed on the Site Plan or the hovercraft shed be relocated to the area shown in the CVA.

8.14.4 The proposal meets the PC subject to conditions.

8.15 Discretion 12 - Existing road accesses and Junctions (E5.5.1 A3/P3 - Road and Railway Assets Code)

8.15.1 The AS requires:

The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater.

8.15.2 The TIA submitted in support of the application assumes the AADT will increase from 60 to 76 AADT. However, the assumption for existing traffic movements (60 vpd) in the TIA has not been substantiated. The previous use has not been operational for some time. It is considered that the development does not meet the acceptable solution.

8.15.3 The PC requires:

Any increase in vehicle traffic at an existing access or junction in an area subject to a speed limit of 60km/h or less, must be safe and not unreasonably impact on the efficiency of the road, having regard to:

- (a) *the increase in traffic caused by the use;*
- (b) *the nature of the traffic generated by the use;*
- (c) *the nature and efficiency of the access or the junction;*
- (d) *the nature and category of the road;*
- (e) *the speed limit and traffic flow of the road;*
- (f) *any alternative access to a road;*
- (g) *the need for the use;*

- (h) any traffic impact assessment; and
- (i) any written advice received from the road authority.

8.15.4 Council, as the relevant road authority, considers that to provide a safe environment for vehicle traffic unfamiliar with the road (i.e. tourist/visitors) Wallace Street should be upgraded to dual lane (two way) or as a minimum provided with formal passing opportunities. A condition to this effect is recommended.

8.15.5 The PC can be satisfied subject to conditions.

8.16 Discretion 13 –Development adjacent to Road and Railways (5.6.1 A1 – Road and Railway Assets Code)

8.16.1 The proposal includes car parking to be constructed in the OSZ, which is setback approximately 28m from the rail corridor, together with vehicle access across the UZ. A toilet block is proposed to be constructed, which is in alignment with existing buildings on site.

8.16.2 The AS requires:

A1.1 Except as provided in A1.2, the following development must be located at least 50m from the rail network, or a category 1 road or category 2 road, in an area subject to a speed limit of more than 60km/h:

- (a) new buildings;
- (b) other road or earth works; and
- (c) building envelopes on new lots.

A1.2 Buildings, may be:

- (a) located within a row of existing buildings and setback no closer than the immediately adjacent building; or
- (b) an extension which extends no closer than:
 - (i) the existing building; or
 - (ii) an immediately adjacent building.

8.16.2 As the proposal includes works to create vehicle parking within 50m of the rail network, the PC applies:

P1 The location of development, from the rail network, or a category 1 road or category 2 road in an area subject to a speed limit of more than 60km/h, must be safe and not unreasonably impact on the efficiency of the road or amenity of sensitive uses, having regard to:

- (a) the proposed setback;
- (a) the setback;

- (b) *the existing setback of buildings on the site;*
- (c) *the frequency of use of the rail network;*
- (d) *the speed limit and traffic volume of the road;*
- (e) *any noise, vibration, light and air emissions from the rail network or road;*
- (f) *the nature of the road;*
- (g) *the nature of the development;*
- (h) *the need for the development;*
- (i) *any traffic impact assessment;*
- (j) *any recommendations from a suitably qualified person for mitigation of noise, if for a habitable building for a sensitive use; and*
- (k) *any written advice received from the rail or road authority.*

8.16.3 It is considered that the proposal can satisfy the PC, given the non-sensitive use and development proposed within the 50m setback from the rail corridor.

8.17 Discretion 14 – Use – Pleasure boat facility (Use Table 29.2 - EMZ)

8.17.1 The application is considered to be a “Pleasure boat facility”, which is a discretionary use in Use Table 29.2 of the EMZ, if no reserve management plan applies to the land in the Zone. The hovercraft tours will be launched from the foreshore directly into the River Derwent Marine Conservation Area, but there is no management plan for this area.

8.17.2 The Zone Purpose must be considered when assessing a Discretionary Use:

29.1.1.1 To provide for the protection, conservation and management of areas with significant ecological, scientific, cultural or aesthetic value, or with a significant likelihood of risk from a natural hazard.

29.1.1.2 To only allow for complementary use or development where consistent with any strategies for protection and management.

29.1.1.3 To facilitate passive recreational opportunities which are consistent with the protection of natural values in bushland and foreshore areas.

29.1.1.4 To recognise and protect highly significant natural values on private land.

29.1.1.5 To protect natural values in un-developed areas of the coast.

8.17.3 The operator proposes that the hovercraft tours will help educate people about the local flora & fauna in the area and that the hovercraft is low impact. An Avifauna assessment on the impact of the operation of the hovercraft is provided with the application which concludes that the impact on avifauna will be acceptable.

8.17.4 It should be noted that the majority of the tours will be undertaken on land outside Brighton Council's jurisdiction.

8.18 Discretion 15 - Use standards for Reserved Land (Clause 29.3.1 A1/P1 - EMZ)

8.18.1 The AS requires the use to be undertaken in accordance with a reserve management plan, however no reserve management plan exists for the River Derwent Marine Conservation Area. The application must be assessed under the following PC:

Use must satisfy all of the following:

- (a) *be complementary to the use of the reserved land;*
- (b) *be consistent with any applicable objectives for management of reserved land provided by the National Parks and Reserves Management Act 2002;*
- (c) *not have an unreasonable impact upon the amenity of the surrounding area through commercial vehicle movements, noise, lighting or other emissions that are unreasonable in their timing, duration or extent.*

8.18.2 As noted above the use is proposed to provide education about the flora & fauna in the area and the Avifauna assessment concludes that the impact of the hovercraft will be low.

8.18.3 The Crown consent from PWS states that PWS "... has deemed it to be consistent with the relevant management objectives under the National Parks and Reserves Management Act 2002."

8.18.4 The application satisfies the PC.

8.19 Discretion 16 - 6.7.6 A1 - Surfacing

8.19.1 The AS requires that *parking spaces and vehicle circulation roadways must be in accordance with all of the following;*

- (a) *paved or treated with a durable all-weather pavement where within 75m of a property boundary or a sealed roadway;*
- (b) *drained to an approved stormwater system,*

unless the road from which access is provided to the property is unsealed.

8.19.2 The proposal includes a sealed surface for the parking area and access to parking. Gravel is proposed for other internal (non-public) access. Accordingly, the PC must be addressed:

Parking spaces and vehicle circulation roadways must not unreasonably detract from the amenity of users, adjoining occupiers or the quality of the environment through dust or mud generation or sediment transport, having regard to all of the following:

- (a) the suitability of the surface treatment;*
- (b) the characteristics of the use or development;*
- (c) measures to mitigate mud or dust generation or sediment transport.*

8.19.3 It is considered that the proposal can satisfy the PC through a condition to ensure that public access and parking areas are sealed and that internal (private) access be maintained so as not to create a nuisance.

8.20 Discretion 17 - E6.7.8 A1 - Landscaping

8.20.1 The AS requires that landscaping of parking and circulation areas must be provided where more than 5 car parking spaces are proposed. This landscaping must be no less than 5 percent of the area of the car park, except in the Central Business Zone where no landscaping is required.

8.20.2 The applicant has not addressed this criteria. Accordingly, the PC must be addressed which requires:

Landscaping of parking and circulation areas accommodating more than 5 cars must satisfy all of the following:

- (a) relieve the visual impact on the streetscape of large expanses of hard surfaces;*
- (b) soften the boundary of car parking areas to reduce the amenity impact on neighbouring properties and the streetscape;*
- (c) reduce opportunities for crime or anti-social behaviour by maintaining passive surveillance opportunities from nearby public spaces and buildings.*

8.20.3 There is sufficient land area available on site to accommodate landscaping. It is therefore considered that the PC can be satisfied through a condition landscaping to be implemented as part of the

development.

9. Concerns raised by representors

- 9.1 The application was advertised in accordance with the statutory requirements of the *Land Use Planning and Approvals Act 1993*.
- 9.2 Two representations were received during the statutory public advertising period. The concerns of the representor are listed below:

<i>Concerns of Representor</i>	<i>Planning Response</i>
Representation 1	
<p><i>Adequate consideration has not been given to the section of road between 3 Wallace Street to 5 Wallace Street in the Traffic Impact Assessment. The section of road covers a length of approximately 60 meters and approximately 3 meters in width of sealed bitumen road. This section of road is only able to cater to a single direction of traffic and there is insufficient space for cars travelling in the opposite direction to pass.</i></p>	<p>The concerns raised by the representor are valid.</p> <p>The section of Wallace St is only single lane with no passing opportunity.</p> <p>If the figures given in the TIA of 60 vehicle movements per day and a peak of 20 vehicle movements per hour for the existing approved use have not been substantiated</p>
<p><i>The road does not have sealed footpaths for any potential foot traffic. How will pedestrians safely access existing properties with the increase to traffic in the street?</i></p>	<p>E5.5.1 Existing road accesses and junctions A3 requires that: The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater.</p> <p>The performance criteria P3 is: Any increase in vehicle traffic at an existing access or junction in an area subject to a speed limit of 60km/h or less, must be safe and not unreasonably impact on the efficiency of the road, having regard to:</p> <p>(a) the increase in traffic caused by the use;</p>
<p><i>The road does not have any infrastructure such as gutters to manage water being pushed off the road due to rain by cars travelling along the road.</i></p>	

	<ul style="list-style-type: none">(b) the nature of the traffic generated by the use;(c) the nature and efficiency of the access or the junction;(d) the nature and category of the road;(e) the speed limit and traffic flow of the road;(f) any alternative access to a road;(g) the need for the use;(h) any traffic impact assessment; and(i) any written advice received from the road authority. <p>Council, as the relevant road authority, considers Wallace Street inadequate to support a tourism type venture where vehicle traffic is unfamiliar with the road conditions and lack of passing. A condition requiring the developer to upgrade Wallace St to 2 lane or at a minimum provide formal passing bays is recommended.</p> <p>The application was referred to TasRail as an adjoining land owner. The development also triggers E5.6.1 P1 of the Road and Railway Assets Code which requires Council to consider “any written advice received from the rail or road authority”. Subsequently TasRail have provided advice requiring a risk assessment to be undertaken. A condition of approval requiring any recommendations from the report to be implemented by the developer is recommended for inclusion in any planning permit. Whilst the risk assessment may not deal directly with the road related issues raised it will address traffic and pedestrian safety as it relates to the rail crossings.</p>
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<p>Representation 2</p>	
<p><i>A comprehensive bird survey program will be required prior to the start of operation, otherwise there is no baseline dataset to compare with. It concerns me that the Avifauna Assessment was a desktop assessment only. Given the importance of the upper estuary as a bird sanctuary, I would have expected a comprehensive on-ground/water bird monitoring program to have been undertaken, and thus having data to compare with.</i></p>	<p>Brighton Council only regulates a small area of the River Derwent where the hovercraft will enter and exit the water (See Figure 5.)</p> <p>The use beyond this small area is within the Derwent Valley Council area and managed by Parks & Wildlife Service. The applicant has prepared a Reserve Activity Assessment and PWS will need to issue a license for the use in regards to PWS requirements.</p>
<p><i>Potential impact on the Australasian bitterns by the current proposal, is being justified by the fact that there has been a continual presence of Australasian bitterns in the upper estuary over the last 10 years, despite use of the waterway by powerboats and other vessels. But there is absolutely no evidence available to prove that current activities have not, and are not, having an impact on bitterns. The Avifauna Assessment states: Repetitive disturbance events can result in possible long-term effects such as loss of weight, condition and a reduction in reproductive success, leading to population impacts (Natural England 2017). We have no information about the long-term impact on the bitterns with current vessel numbers (and there is no quantitative information about current boat usage of the area) so it is disingenuous to simply assume that the impact will not be increase to detrimental levels by adding up to eight trips a day (one round trip constitutes two trips along the river). The Australasian bittern records from eBird are not mentioned in the Avifauna Assessment so may not have been included. Here are three records from the reed beds on the shore opposite Murphys Flats: https://ebird.org/australia/checklist/S423324</i></p>	<p>See above.</p>

<p>85 https://ebird.org/australia/checklist/S538423 52 https://ebird.org/australia/checklist/S599964 56, thus critical that the boat is not allowed to veer towards these beds.</p>	
<p><i>The plight of the Black swan appears undervalued in this assessment. As the Avifauna Assessment correctly states: The reserve area in the River Derwent was first proclaimed a "sanctuary with respect to black swans". The recent State of the Derwent Estuary 2020 page 126-27 reports on DPIPWE surveying of Black swans in this area, and importantly, that this area attracts swans from other parts of Tasmania when other areas become too dry</i> https://www.derwentestuary.org.au/assets/State_of_the_Derwent_Estuary_2020_Update.pdf. Further, this area of the River Derwent is one of the premier sites in Tasmania to see the Black swans and it attracts numerous tourists as well as locals. Impact on this species should be minimised, and the impact by 'joy-rides' proposed by the Bridgewater Causeway could be considerable. At the very least a maximum number of such trips should be stipulated.</p>	<p>See above</p>
<p><i>The Avifauna Assessment recommends that the hovercraft be operated in a way that reduces speed when flocks of birds are visible on the water. Some very clear guidelines will be required to implement such a complex condition. Approx. how many birds constitutes a flock of birds? All bird species? Distance from birds when required to slow down? How far from the birds before the boat can pick up speed again? It is critical that all this information is stipulated clearly and not left to various skippers (with potential pressures from thrill-seeking customers and company) to make their own interpretation of what is required.</i></p>	<p>See above.</p>

10. Referrals

10.1 Development Engineering

The application was referred to Council's Senior Technical Officer, who has provided comments, conditions and advice that are incorporated into the body of this report.

10.2 TasRail

10.2.1 Planning staff sought advice from the rail authority, TasRail, as an adjoining land owner.

10.2.2 TasRail provided advice that TasRail owns the majority of the land around Wallace St and none of that is to be used to support the proposed development, which includes permitting pedestrian access through TasRail land.

10.2.3 TasRail also provided the following comments in relation to the TIA and the risk assessment on the rail crossings:

TasRail notes there are numerous errors and/or misunderstandings within the TIA Report which did not reference or take into account Rail Safety National Law 2012 (RSNL). For example under RSNL the roles and responsibilities of the road owner (Brighton Council) and the rail infrastructure manager (TasRail) are very clear and include a requirement for these two parties to risk assess any change in conditions at a railway crossing. For clarification, RSNL requires the Council and TasRail to risk assess the two railway crossings that interface with Wallace Street to identify any required change in controls as triggered by the impending change in conditions caused by the development, and likely also the other rail crossing on Boyer Road if this is the main access point. The TIA author's assessment of risk in relation to the rail crossings is therefore irrelevant.

Based on the above feedback, TasRail requested the following actions:

That TasRail and Council promptly arrange for a joint risk assessment of the three railway crossings being the currently non-operational crossing and the operational crossing over Wallace Street (DV Line); and the rail crossing on Boyer Road which interfaces with both the operational South Line and the operational DV Line. This risk assessment to determine if any additional safety controls are required to support the development. If additional controls are required, these should be at either Council or the developer's cost, but may include for example pedestrian maze crossings. TasRail will revert to Council as to how it wishes to approach this with the developer, and/or reference in any Permit issued.

10.2.4 Planning staff advised the applicant of the advice from TasRail and offered an extension of time so that they engage a consultant with the necessary qualifications to undertake a risk assessment in accordance with the RSNL. The applicant was also advised that Council would not be contributing to the risk assessment or any additional safety controls.

10.2.5 The applicant denied the extension of time and requested that the application be determined.

10.2.6 It is recommended that a condition be included in any approvals requiring the provision of the risk assessment in accordance with the RSNL, as required by TasRail.

10.3 Parks & Wildlife Service (PWS)

PWS provided Crown consent for the application (attached). In its consent letter it was advised that the proposed development relates to Reserve land known as the River Derwent Marine Conservation Area, reserved pursuant to the Nature Conservation Act. PWS noted that it was assessing the Reserve Activity Assessment for the proposal and has deemed it to be consistent with the relevant management objectives under the *National Parks and Reserves Management Act 2002*.

11. Section 35K Endorsement

11.1 On 3 February 2021, Council received a notice from the Tasmanian Planning Commission under Section 35(K)(1)(a) of the *Land Use Planning and Approvals Act 1993* to modify a draft Local Provisions Schedule (LPS).

11.2 Section 35(K)(2)(d) relevantly states:

(2) If a planning authority is directed under subsection (1)(a) to modify a draft LPS –

(a) ...

(b) ...

(c) ...

(d) the planning authority must not issue a permit, or do any other thing that would, if the draft LPS as modified were an LPS, be a contravention of the LPS.

11.3 The application has been assessed against the provisions of the draft LPS (as modified), and it is concluded that the application does not conflict with those provisions.

- 11.4 Should Council determine to issue a permit, it is the Officer's opinion that the Planning Authority's decision would not be in contravention of the Brighton draft LPS and would therefore satisfy the requirements of Section 35K(2)(d) of the Act.

12. Conclusion

- 12.1 The proposal is for a Pleasure Boat Facility use (hovercraft tours and ancillary childrens' parties) at 7 Wallace Street, Bridgewater.
- 12.2 The application is complex given it includes numerous titles, different zones, many overlays and access over the State Rail Network.
- 12.3 The proposed development has been assessed against all relevant provisions of the *Brighton Interim Planning Scheme 2015*, and is considered to perform well.
- 12.4 The application is recommended for approval subject to non-standard conditions in relation to access over the State Rail Network.

13. Recommendations

That: A. Pursuant to the *Brighton Interim Planning Scheme 2015*, Council approve application DA 2020/178 for a Pleasure Boat Facility (Hovercraft tours) at 7 Wallace Avenue, Bridgewater for the reasons outlined in the officer's report and a permit containing the following conditions to be issued.

General

- (1) The use or must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.
- (2) No works are to be undertaken on Crown Land without prior approval from the Crown.
- (3) This permit shall not take effect and must not be acted on until development 15 days after the date of receipt of this letter or the date of the last letter to any representor, whichever is later, in accordance with Section 53 of the *Land Use Planning and Approvals Act 1993*.

Derwent Marine Conservation Area

- (4) Prior to any works or activities commencing, the proponent must seek a final authority from the Crown for the operation of hovercraft tours within the River Derwent Marine Conservation Area.

Amenity

- (5) The proposed colours and materials for the walls and roof (Colourbond Evening Haze, Cove & Mangrove) are approved. Any variation in the colours and materials must be submitted to and approved by the Council's Manager Development Services.
- (6) No vegetation other than that necessary for the construction of the building, associated access and services is to be cleared without the approval of Council.

Weed Management

- (7) Prior to the use commencing, A Weed Management Plan, prepared by a suitably qualified person, must be submitted and approved by the Manager Development Services. The Weed Management Plan must assess the potential for the spread of weeds or soil pathogens by the launching of the hovercraft and identify methods to control weeds. The recommendations must be implemented.

Waterway & Coastal Protection

- (8) Before any work commences a soil and water management plan (SWMP) prepared in accordance with the guidelines *Soil and Water Management on Building and Construction Sites*, by the Derwent Estuary Programme and NRM South, must be approved by Council's Manager Development Services before development of the land commences (refer to advice below). The SWMP shall form part of this permit when approved.
- (9) Before any work commences install temporary run-off, erosion and sediment controls in accordance with the recommendations of the approved SWMP and maintain these controls at full operational capacity until the land is effectively rehabilitated and stabilised after completion of the development in accordance with the guidelines *Soil and Water Management on Building and Construction Sites*, by the Derwent Estuary Programme and NRM South and to the satisfaction of Council's Manager Development Services.
- (10) Use of fill on the fringe of the wetland is prohibited.
- (11) Works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.

Coastal Inundation

- (12) Prior to, or in conjunction with any Building Application, plans must be submitted showing the finished floor levels for buildings established at the site are at or above 2.2 m AHD.

Coastal Erosion

- (13) Prior to, or in conjunction with any Building Application, either:
- a. an amended Site Plan must be submitted showing the hovercraft shed shown in the same location as in Figure 6 of the Coastal Vulnerability Assessment; or
 - b. The Coastal Vulnerability Assessment is amended to assess the location of the hovercraft shed as shown on the Site Plan and it can be determined that the location is suitable.

Services

- (14) The developer must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the development. Any work required is to be specified or undertaken by the authority concerned.
- (15) Services located under the proposed driveway(s) are to be provided with trafficable covers to the requirements of the relevant authority and Council's Municipal Engineer.

Wallace Street

- (16) Prior to the use commencing the developer must upgrade Wallace Street from Boyer Road to 7 Wallace Street to dual lane, or provide formal passing bays at regular intervals, to the satisfaction of Council's Municipal Engineer.
- (17) Public roadworks and drainage must be constructed in accordance with the standard drawings and specification prepared by the IPWE Aust. (Tasmania Division) and to the requirements of Council's Municipal Engineer.
- (18) All works to be adopted by Council or within a Council Road Reservation must be placed onto a 12 month maintenance and defects liability period following the completion of the works in accordance with the approved engineering plans, permit conditions and Council Policy.

Engineering

- (19) All works associated with Council Assets must be carried out in accordance with the Tasmanian Subdivision Guidelines October 2013 (attached).
- (20) Engineering design drawings for the upgrade of Wallace Street must be submitted to and approved by Council's Municipal Engineer before any works associated with development of the land commence.
- (21) Engineering design drawings are to be prepared by a qualified and experienced civil engineer, or other person approved by Council's Municipal Engineer, in accordance with the Tasmanian Subdivision Guidelines October 2013.
- (22) Approved engineering design drawings will remain valid for a period of 2 years from the date of approval of the engineering drawings.
- (23) The developer shall appoint a qualified and experienced Supervising Engineer (or company registered to provide civil engineering consultancy services) who will be required to certify completion of construction works relating to Council assets or works within Council's Road Reservation.

ADVICE:

The majority of Wallace Street is located on State Rail Network land. Prior to accessing State Rail Network land the developer must obtain a separate TasRail permit. Application for the permit can be made to property@tasrail.com.au.

Parking and Access

- (24) The maximum sized vehicle to access the proposed development on a regular service basis is to be limited to a 12 seater bus.
- (25) Parking and access must be generally in accordance with the endorsed plans and to the satisfaction of Council's Municipal Engineer.
- (26) At least twenty one (21) parking spaces must be provided on the land at all times for the use of the occupiers including at least two (2) car parking spaces for the existing dwelling, in accordance with Standards Australia (2004): Australian Standard AS 2890.1 - 2004 - Parking Facilities Part 1: Off Street Car Parking; Standards Australia, Sydney.
- (27) Unless approved otherwise by Council's Municipal Engineer the internal driveway and areas set-aside for parking and associated access and turning must be provided in accordance with;

- a) Standards Australia (2004): Australian Standard AS 2890.1 - 2004 – Parking Facilities Part 1: Off Street Car Parking; Standards Australia, Sydney;
- b) Standards Australia (2002): Australia Standard AS 2890.2 – 2002, Parking facilities - Part 2: Off-Street, Commercial vehicle facilities, Sydney;

and include all of the following:

- (a) A minimum trafficable width of 5.5m for the length of the access from Wallace St to the car park
 - (b) A minimum trafficable width of 3m with passing bays 5.5m wide by 6.0m long every 30m elsewhere
 - (c) Constructed with a durable all weather pavement.
 - (d) The access from Wallace St to the parking area and associated turning and manoeuvring areas must be surfaced with spray seal, concrete, asphalt or approved equivalent
 - (e) The remaining vehicular access areas within the site (not utilised by the public) must have a minimum gravel surface that is designed, constructed and maintained to avoid dust or mud generation, erosion or sediment transfer on or off site;
 - (f) Drained to an approved stormwater system.
 - (g) On site turning
- (28) A parking plan prepared and certified by a qualified civil engineer or other person approved by Council's Municipal Engineer must be submitted to Council prior to or in conjunction with lodgement of Building Application. The parking plan is to include:
- pavement details,
 - design surface levels and gradients,
 - drainage,
 - turning paths,
 - dimensions,
 - line marking,
 - signage,
 - pedestrian access,

and shall form part of the permit when approved.

- (29) The completed parking and associated turning areas and access must be certified by a practicing civil engineer to the effect that they have been constructed in accordance with the endorsed drawings and specifications approved by Council before the use commences.
- (30) All areas set-aside for parking and associated turning, and access must be completed before the use commences and must continue to be maintained to the satisfaction of the Council's General Manager.

Access to Public Road

ADVICE: No works on or affecting any Council road or road reservation is to be commenced until the Brighton Council has issued a WORKS IN ROAD RESERVATION PERMIT. Application for the issue of the necessary works permit is to be made to the Brighton Council's Asset Services Department prior to the proposed date of commencement of any works.

Stormwater

- (31) Stormwater from the proposed development must drain to the existing private stormwater system (swale drain) to the satisfaction of Council's Municipal Engineer and in accordance with the Building Act 2016.
- (32) The stormwater system for the development must incorporate stormwater treatment prior to discharging to the Derwent River or public stormwater system to achieve the quality targets in accordance with the State Stormwater Strategy 2010, as detailed in Table E7.1 of the Brighton Interim Planning Scheme 2015, and to the satisfaction of the Council's Municipal Engineer.
- (33) The stormwater treatment system must continue to be maintained to ensure quality targets are maintained and water is conveyed so as not to create any nuisance to adjacent properties.
- (34) The developer must provide a minor stormwater drainage system designed to comply with all of the following:
 - a) be able to accommodate a storm with an ARI of 20 years when the land serviced by the system is fully developed;
- (35) The developer is to maintain a major stormwater drainage path through the site to accommodate a storm with an ARI of 100 years.
- (36) The driveway must be drained to minimise surface runoff to adjoining land in accordance with the requirements of the Municipal Engineer and the *Building Act* 2016.

Tas Rail

- (37) Prior to the commencement of any works, use, or lodgement of building or plumbing applications the developer must submit to Council's General Manager a TasRail guided risk assessment, prepared by a suitably qualified person, of the three railway crossings being the currently non-operational crossing and the operational crossing over Wallace Street (DV Line); and the rail crossing on Boyer Road which interfaces with both the operational South Line and the operational DV Line.

Once accepted the assessment shall form part of the endorsed documents and any additional works or safety controls recommended by the report are to be funded by the developer and implemented prior to the use commencing.

- (38) Prior to accessing State Rail Network land for fencing installation, or any other reason, the developer must obtain a TasRail permit.

ADVICE:

Application for the permit can be made to property@tasrail.com.au. This requirement applies to both the non-operational and the operational rail corridor.

- (39) Prior undertaking any excavation within 3 metres from the boundary of State Rail Network land the developer must obtain a separate Permit in accordance with section 44 of the *Rail Infrastructure Act 2007*.

ADVICE:

Application for the permit can be made to property@tasrail.com.au. Such application will need to be submitted a minimum of 10 business days prior to commencement.

- (40) The development must be undertaken in accordance with TasRail's Standard Notes for both operational and non-operational lines (attached).

Soil and Water Management

- (41) Before any work commences a soil and water management plan (SWMP) prepared in accordance with the guidelines Soil and Water Management on Building and Construction Sites, by the Derwent Estuary Programme and NRM South, must be approved by Council's General Manager before development of the land commences. The SWMP shall form part of this permit when approved.

- (42) Before any work commences install temporary run-off, erosion and sediment controls in accordance with the recommendations of the approved SWMP and maintain these controls at full operational capacity until the land is effectively rehabilitated and stabilised after completion of the development in accordance with the guidelines Soil and Water Management on Building and Construction Sites, by the Derwent Estuary Programme and NRM South and to the satisfaction of Council's General Manager.

Construction Amenity

- (43) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager Development Services:
- Monday to Friday 7:00 a.m. to 6:00 p.m.
 - Saturday 8:00 a.m. to 6:00 p.m.
 - Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.
- (44) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
- a. Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - b. The transportation of materials, goods and commodities to and from the land.
 - c. Obstruction of any public footway or highway.
 - d. Appearance of any building, works or materials.
- (45) Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site will be permitted unless approved in writing by the Council's Manager Development Services.
- (46) Public roadways or footpaths must not be used for the storage of any construction materials or wastes, for the loading/unloading of any vehicle or equipment; or for the carrying out of any work, process or tasks associated with the project during the construction period.
- (47) The developer must make good and/or clean any footpath, road surface or other element damaged or soiled by the development to the satisfaction of the Council's Municipal Engineer.

THE FOLLOWING ADVICE APPLIES TO THIS PERMIT:

This permit does not imply that any other approval required under any other legislation or by-law has been granted.

- A. No works on or affecting any Council road or road reservation to be commenced until the Brighton Council has issued a WORKS IN ROAD RESERVATION PERMIT. Application for the issue of the necessary works permit is to be made to the Brighton Council's Asset Services department prior to the proposed date of commencement of any works.
- B. The owner is advised that an engineering plan assessment and inspection fee of 1% of the value of the approved engineering works, or a minimum of \$300.00, must be paid to Council in accordance with Council's fee schedule.
- C. This planning approval shall lapse at the expiration of two (2) years from the date of the commencement of planning approval if the development for which the approval was given has not been substantially commenced. Where a planning approval for a development has lapsed, an application for renewal of a planning approval for that development shall be treated as a new application.

DECISION:

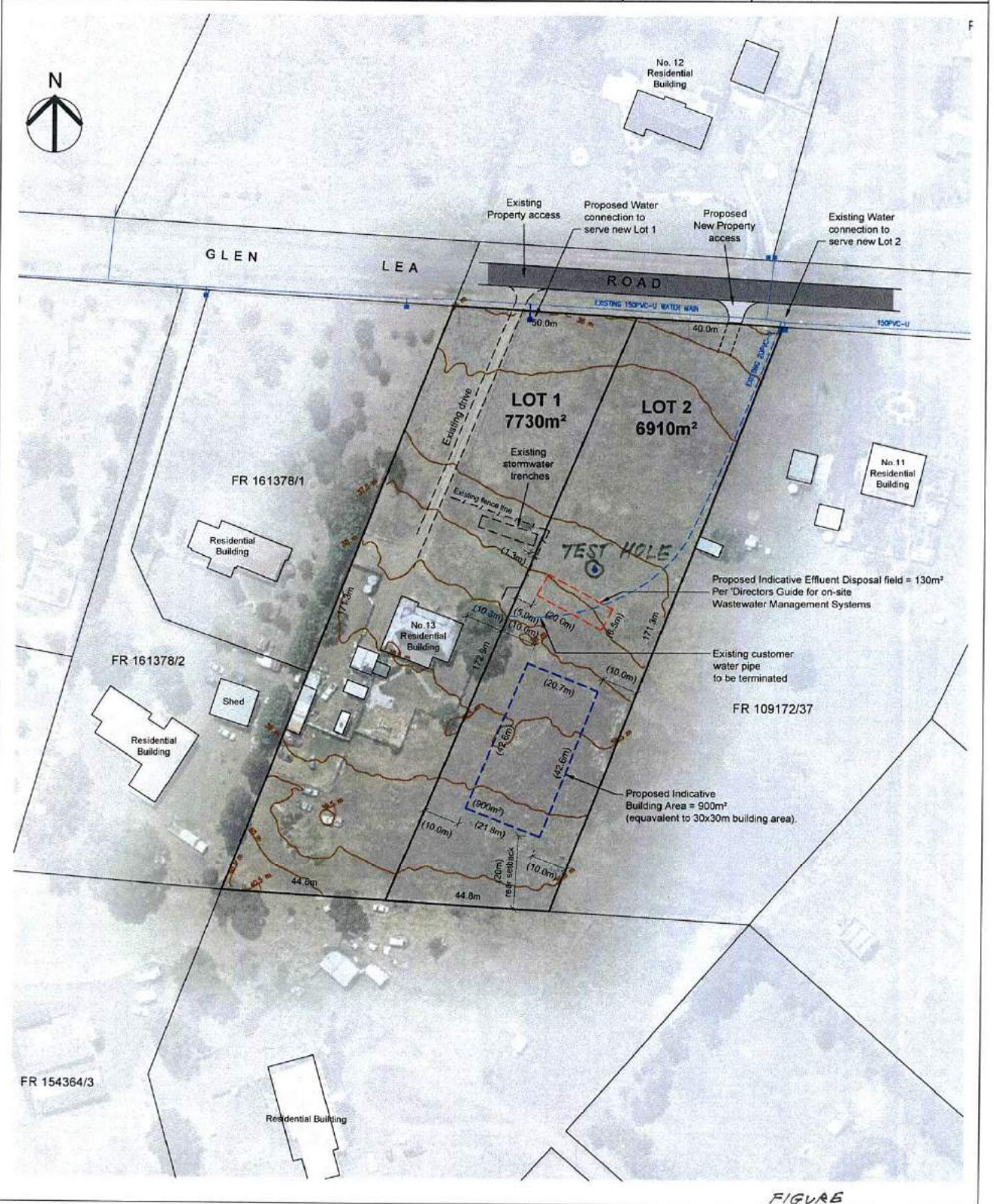
PLAN OF SUBDIVISION



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Owners	Suzanne Roberta Doyle	Address	13 Glen Lea Road, Brighton	This plan has been prepared only for the purpose of obtaining preliminary subdivision approval from the Council and the information shown hereon should be used for no other purpose. All measurements and areas are subject to final survey.							
Title References	FR 109172/36	Council	Brighton Council								
Schedule Of Easements	Schedule of Easements on file for details.										
Planning Scheme		Zone & Overlay	13.0 Rural Living; 117.WCP								
Scale	1:1000	Date	11 November 2020	PDA Reference	46085CT-1A	Map reference	5227-41	PID	1491251	Point of Interest	520768E, 5274095N



FIGURE

HOBART
C.M. Terry, B. SURV. (Tas.), M.SSSI. (Director)
H. Clement, B. SURV. (Tas.), M.SSSI (Director)
M.S.G. Denholm, B. GEOM. (Tas.), M.SSSI (Director)
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A. Collins, Ad. Dip. Surv & Map, (Senior Associate)
M. McQueen, B.E., M.I.E. AUST., C.P.ENG. (Associate)
L.H. Kiely, Ad. Dip. Civil Eng, Cert IV I.T., (Associate)
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Our Ref: 46085CT

14 December 2020

The General Manager
Brighton Council

Sent via: development@brighton.tas.gov.au

Dear Sir/Madam,

**Planning Permit Application for a 1 lot subdivision
At 13 Glen Lea Road, Brighton**

In accordance with instructions from our client, this application for planning permit proposes the subdivision of land (creating 1 additional lot).

To support this application, the following is submitted:

- Planning assessment report;
- A scaled and dimensioned Plan of Subdivision;
- Completed Planning Permit Application form; and
- Current copy of title, plan and any relevant schedule of easements.

Please forward an invoice for the fee as soon as possible to ensure prompt payment.

We will forward the required bushfire Hazard report and management plan by separate cover when it is available.

In accordance with section 52(i)(c) of the Land Use Planning and Approvals Act 1993 we advise that the owner has been notified of this application.

Yours faithfully
PDA Surveyors

Per:

Craig Terry
Managing Director & Registered Land Surveyor

OFFICES ALSO AT:

- | | | | |
|--|----------------|------------------------------------|----------------|
| • 6 Freeman Street, Kingston, 7050 | (03) 6229 2131 | • 16 Emu Bay Road, Deloraine, 7304 | (03) 6362 2993 |
| • 8/16 Main Road, Huonville, 7109 | (03) 6264 1277 | • 6 Queen Street, Burnie, 7320 | (03) 6431 4400 |
| • 3/23 Brisbane Street, Launceston, 7250 | (03) 6331 4099 | • 63 Don Road, Devonport, 7310 | (03) 6423 6875 |

PLANNING ASSESSMENT REPORT

Proposal: ONE LOT SUBDIVISION
 The Land: 13 GLEN LEA ROAD, BRIGHTON
 Owner: Suzanne Doyle

THE LAND

The subject land is located at 13 Glen Lea Road, Brighton. The land contains a single existing dwelling and associated outbuildings, which are located at the rear western edge of the site. The land is gently undulating to flat land and is clear of any remnant or significant native vegetation.

The surrounding area is almost exclusively used for rural living purposes on varying sized lots ranging between 0.5ha to 2ha in size. The only alternative use in the immediate area is on a title on the opposite side of Glen Lea Road, which is identified as public open space that adjoins the Jordan River.

THE PROPOSAL

The application proposes to subdivide the land by creating two lots. One lot will contain the existing dwelling and all outbuildings, while the other proposed lot will be vacant. Both lots will have direct frontage to Glen Lea Road. The lot for the existing dwelling will maintain its own driveway, while the new vacant lot will have its own new vehicle crossover via its own lot frontage.

The proposal shown on the enclosed plan of subdivision details an indicative building area, and indicative location for an effluent disposal area to demonstrate capacity of the new lot against the relevant provisions of the Planning Scheme.

PLANNING SCHEME

The land is subject to the provisions of the Brighton Interim Planning Scheme 2015.

There are no exemptions for this type of subdivision under other clauses in the Scheme. Clause 9.7.1 states that a permit is required for development involving a plan of subdivision.

The land is located in the Rural Living Zone and is also subject to the Bushfire Prone Areas Overlay and partially affected by the Waterway and Coastal Protection Areas Overlay.

RURAL LIVING ZONE

The purpose of the Rural Living Zone at Clause 13.1 (relevant to this application) is:

- To provide for residential use or development on large lots in a rural setting where services are limited.
- To provide for compatible use and development that does not adversely impact on residential amenity.
- To avoid land use conflict with adjacent Rural Resource or Significant Agriculture zoned land by providing for adequate buffer areas.

There specified Local Area Objectives and Desired Future Character Statements Purpose for the Rural Living Zone Area A designation are as follows:

Local Area Objective is - Rural Living Area A₁₅ to provide for higher density rural living closer to settlements and urban fringe areas, with greater service provision and fewer environmental constraints. This objective is implemented by having a minimum lot size of 5000m².

Desired Future Character Statement is- Rural Living Area A will develop at a higher density than other Rural Living areas, capitalising on their proximity to settlements, whilst still providing for rural values and a high level of amenity and privacy. This character statement will be achieved by ensuring that siting and scale of development does not cause unreasonable impacts on neighbouring amenity.

For this type of subdivision, the relevant development standards of the Rural Living Zone are 13.5.1 (Lot Design), 13.5.3 (Ways and Public Open Space) and 13.5.4 (Services).

13.5.1 LOT DESIGN

The following provides justification as to how the design of the subdivision meets either the acceptable solutions, performance criteria or a combination of both:

A1

Each of the lots is at least 5000m² in size.

A2/P2

The parts of the proposal that meets the acceptable solution is:

- That the land is not within the vicinity of any land that is located in the Rural Resource Zone, Significant Agricultural Zone or Environmental Management Zone.
- The building area on the vacant lot has an average slope of less than 1 in 5.
- The building area on the vacant lot is clear of easements and/restrictive covenants on title.
- The proposal does meet all applicable standards in relevant Codes in the Scheme (see below).
- The building area has direct orientation to the north for a distance of 26m, which provides more than ample area for good solar access for a future dwelling.
- The flat to gently undulating topography will mean that excavation associated with future development will be minimised.
- The building area is provided with a generous area around it to ensure privacy and amenity, albeit that 20m side setbacks are not strictly achieved. There is sufficient scope on each lot to establish fencing and or landscaping areas to provided added certainty for residential amenity.

A3

Each lot has a minimum frontage of 40 metres.

A4

No lot is an internal lot.

A5/P5

Similarly as stated above for the new lot, the setbacks for the existing dwelling on Lot 1 is provided with a generous area around it to ensure privacy and amenity, albeit that 20m side setbacks are not strictly achieved. There is sufficient scope on each lot to establish fencing and or landscaping areas to provided added certainty for residential amenity.

It should be noted that the setback development standards at Clause 13.4.2 are the same measure that is used for assessment for lots in Rural Living Zone Area B and Area C. Those Areas can have lots with a minimum lot size at least double the size than that proposed in this application. This means that those side boundary setbacks would be more easily achieved on larger lots. It would be preferable with smaller lot size expectations that smaller side

setbacks could be considered to be an acceptable solution. Notwithstanding this design preference, the proposal remains consistent with the performance criteria as stated above.

13.5.3 WAYS AND PUBLIC OPEN SPACE

The following provides justification as to how the design of the subdivision meets the acceptable solutions/performance criteria:

- The proposal does not include any ways or public open space.
- Given Council's Public Open Space policy, it is expected that a cash in lieu payment will be required as a result of any permit that may be granted requiring a 5% cash contribution of the unimproved value of any additional Lots, in line with Council's existing policy.

13.5.4 SERVICES

The following provides justification as to how the design of the subdivision meets the acceptable solutions/performance criteria:

- A1 Each lot as shown on the plan, is provided with a connection to a reticulated water supply.
- P2 A review of the Directors Guidelines for On-site Wastewater Management Systems (the standard) has been undertaken during the design of this subdivision to ensure that the existing and future development is capable of complying with this standard for on-site waste water treatment.

The waste disposal field for the existing dwelling is located within its own lot and has at least a 1.3m setback to the new boundary. Lot 2 has shown capacity to locate an area of at least 130m² for an indicative effluent disposal field (shown on the plan), which is compliant with a minimum area in the standard for heavier clay soil profiles (worst case scenario drainage) and able to meet the required setbacks from boundaries (generally 2 metres from boundaries). Given that the actual soil profile for the subject land is identified as "Undifferentiated alluvial soils" it is expected that an area of less than 130m² will be necessary.

- P3 Given the size of the lots and the need for additional water supply to service the rural lifestyle land use, it is reasonable to say that stormwater will be contained on site via water storage tanks and a compliant overflow system. There is no need to add any formal stormwater system to the land for this purpose.

CODES

E1.0 BUSHFIRE PRONE AREAS CODE

'Bushfire-prone area' means:

- a) Land that is within the boundary of a bushfire-prone area shown on an overlay on a planning scheme map; or
- b) Where there is no overlay on a planning scheme map land that is within 100m of an area of bushfire-prone vegetation equal to or greater than 1ha.

This code applies to:

- Subdivision of land that is located within, or partially within, a bushfire-prone area; and
- A use, on land that is located within, or partially within, a bushfire-prone area that is a vulnerable use or hazardous use.

On the basis that the subject land is located in a bushfire prone area, it is necessary for the subdivision to be able to demonstrate that it can be compliant with the provisions of this code and Australian Standard AS3959–2009 *Construction of buildings in bushfire-prone areas*.

A Bushfire Hazard Report and BHMP is being prepared and will be supplied separately to this application. The design of the subdivision has taken into consideration these requirements.

E5.0 ROAD AND RAILWAY ASSETS CODE

As the Code is relevant to this proposal, the following assessment is provided.

E5.6.2 ROAD ACCESSES – A2

The subject site is located on a road that has a speed limit of 60 km/hr. Each lot has no more than one access each and therefore meets the Acceptable Solution at this clause.

E5.6.4 SIGHT DISTANCES AT ACCESSES – A1

The subject site and the surrounding context is located in an area that has a flat to mildly undulating profile. In that regard, there are generally unencumbered sight distances from both the existing and proposed new accesses for the subdivision, and will easily accommodate the required minimum site distance of 80 metres in either direction along Glen Lea Road for both accesses.

E6.0 PARKING AND ACCESS CODE

As the Code is relevant to this proposal, the following assessment is provided.

E6.7.1 NUMBER OF VEHICULAR ACCESSES – A1

Each lot has a single lot access per road frontage as specified in the acceptable solution.

E6.7.2 DESIGN OF VEHICULAR ACCESSES – A1

AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking requires:

- Location - no specific requirements for this proposal
- Sight distance = 55m (easily achieved)
- Geometry – there is ample area on each lot and orientation to road to ensure that the new or existing access can comply with geometry requirements of the Standard.
- Gradient – not particularly relevant in this application given the flat profile of the land, as this part of the standard seeks to limit the creation of access that have steep gradients beyond 1 in 20.

E6.7.14 ACCESS TO A ROAD

There is sufficient area at the frontage of Lot 2 to construct a new vehicle access that can comply with the road authority's standards/LGAT standard drawings. Lot 1 contains an existing vehicle access. There are not considered to be any particular site constraints that would necessitate more detail design at this conceptual stage in regard to access for each lot. It is expected that any permit conditions will control the construction and/or upgrade of access for each lot.

E7.0 STORMWATER MANAGEMENT CODE

As the Code is relevant to this proposal, the following assessment is provided.

- P1 Given the generous size of each lot and each lots capacity to collect and re-use stormwater or dispose of on-site, it is not considered necessary to provide a new connection to a formal stormwater system (albeit that the existing subdivision does have access to a drainage easement on an adjoining lot – see title for detail).

E11.0 WATERWAY AND COASTAL PROTECTION CODE

As the Code is relevant to this proposal, the following assessment is provided.

- P1 The Waterway and Coastal Protection Area only applies to a portion of the subject land. Within that area there are no works associated with the subdivision that will occur other than a single connection to the reticulated water supply for Lot 1, which will be constructed via

a sub-surface connection and the works area⁸⁸. On that basis the proposal is consistent with the performance criteria for the following reasons:

- The proposal minimises the impact on natural values as the subject land is located more than 300m from the closest waterway (Jordon River to the northwest).
- The existing dwelling and building area for Lot 2 and respective waste water disposal areas are outside the Waterway and Coastal Protection Area.
- The subject land is not located within a Potable Water Supply Area.

OTHER MATTERS

The proposal does not breach any restrictive covenants contained within the Schedule of Easements.

CONCLUSION

Given the above assessment, this report/proposed subdivision has demonstrated compliance with the requirements of the Brighton Interim Planning Scheme 2015.

We seek that the Council support this application in its current form and grant a planning permit.

We are satisfied that the permit may contain conditions relating to:

- The construction of the new vehicle crossover for Lots 2 and other associated infrastructure requirements.
- Procedural requirements relating to the creation of titles.
- Requirements of TasWater as it relates to the connection to the reticulated water supply.
- Possible need to make a cash in lieu payment for a public open space contribution.

It is not envisaged that there would be any other substantial planning matters that the permit will need to control.

PLAN OF SUBDIVISION

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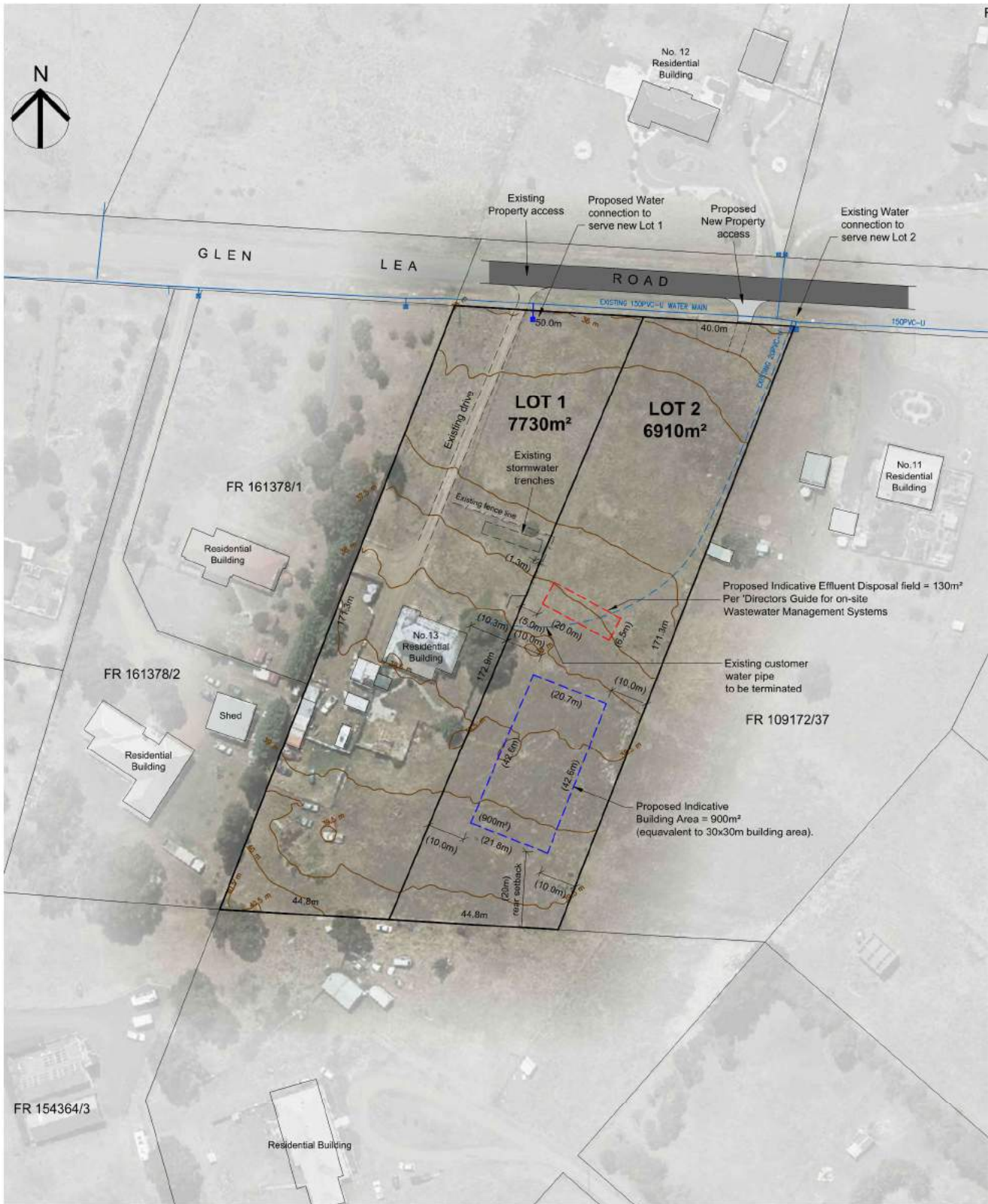


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Owners	Suzanne Roberta Doyle	Address	13 Glen Lea Road, Brighton	This plan has been prepared only for the purpose of obtaining preliminary subdivision approval from the Council and the information shown hereon should be used for no other purpose. All measurements and areas are subject to final survey.							
		Council	Brighton Council								
Title References	FR 109172/36	Planning Scheme	Brighton Interim Planning Scheme 2015								
Schedule Of Easements	Schedule of Easements on file for details.										
Zone & Overlay	13.0 Rural Living; 117.WCP										
Scale	1:1000	Date	11 November 2020	PDA Reference	46085CT-1A	Map reference	5227-41	PID	1491251	Point of Interest GDA94 MGA55	520768E, 5274095N



HOBART

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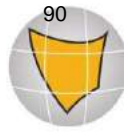
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Bushfire Hazard Report – 46085CT

Two lot subdivision - 13 Glen Lea Rd Brighton



Jim Mulcahy (BSc, GradDipEnvStud; Accreditation BFP - 159)

11 December 2020

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Disclaimer

All reasonable steps have been taken to ensure that the information and advice contained in this report is an accurate reflection of the fire hazard affecting the proposed development at the time of the assessment and the hazard management measures necessary to meet the standards prescribed in *E1.0 Bushfire Prone Areas Code of the Brighton Interim Planning Scheme 2015* and *Australian Standard AS 3959-2009*.

The prescribed hazard management measures are designed to reduce bushfire risk to any dwelling(s) constructed on the site. The effectiveness of these measures relies on their implementation in full and their maintenance for the life of the development. No liability can be accepted for actions by landowners or third parties that undermine or compromise the integrity of prescriptions and recommendations contained in this report.

Due to the unpredictable nature of bushfires, particularly under extreme weather conditions, landowners should be aware that implementation and maintenance of the hazard management measures outlined in this report cannot guarantee that a building will survive a bushfire event.

Australian Standards

AS3959 – 2009 Construction of Buildings in Bushfire-Prone Areas has recently been superseded by *AS3959:2018*.

AS3959 remains relevant for this report and will remain relevant until *E1.0 Bushfire Prone Areas Code of the various Interim Planning Schemes* has been updated to reference the new standard.

In respect of *Bushfire Attack Level (BAL)* determinations based on vegetation type and slope, the content of Table 2.4.4 in *AS3959-2009* is the same as Table 2.6 in *AS3959:2018*. The new standard does include some changes to the description of *Low threat vegetation* and the *Classification of Vegetation*, but these changes do not materially affect the analysis contained in this report. As a result, to the best of the author's knowledge and understanding, the conclusions and prescribed separation distances contained in this report and the attached *Bushfire Hazard Management Plan* are consistent with the provisions of both *AS3959-2009* and *AS3959:2018*.

Executive Summary

Owners	Suzanne Roberta Doyle
Applicant	PDA Surveyors

Title references	FR 109172/36
PID	1491251
Address	13 Glen Lea Rd Brighton
Land size	1.464ha

Municipality	Brighton
Planning Scheme	<i>Brighton Interim Planning Scheme 2015</i>
Zoning	<i>Rural Living</i>

Proposed development	Two lot subdivision
Date of site assessment	3 December 2020
Bushfire Assessment	Current and future dwellings are capable of meeting the requirements of BAL-19 in respect of hazard management areas, access for fire-fighting and water supplies for fire-fighting
Conclusion	Compliant development

The proposed subdivision occurs within the *Bushfire Prone Areas* overlay of the *Brighton Interim Planning Scheme 2015* (the Scheme). The Scheme requires that the bushfire risk to the development and appropriate hazard management responses to those risks be considered during the planning process. The proposed subdivision has been assessed against the requirements of *E1.0 Bushfire Prone Areas Code* of the Scheme (the Code) and *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas* (AS 3959).

A *Bushfire Hazard Management Plan* has been prepared, showing an *Indicative Building Area* for Lot 2 and *Hazard Management Areas* which demonstrate the potential for existing and future dwellings to achieve a *Bushfire Attack Level* (BAL) rating of BAL-19 under Table 2.4.4 of AS 3959.

The *Bushfire Hazard Management Plan* demonstrates compliance with the acceptable solutions for subdivision under the Code and has been certified. It will accompany the final version of this report and will be provided to Brighton Council as part of a development application for the proposed subdivision.

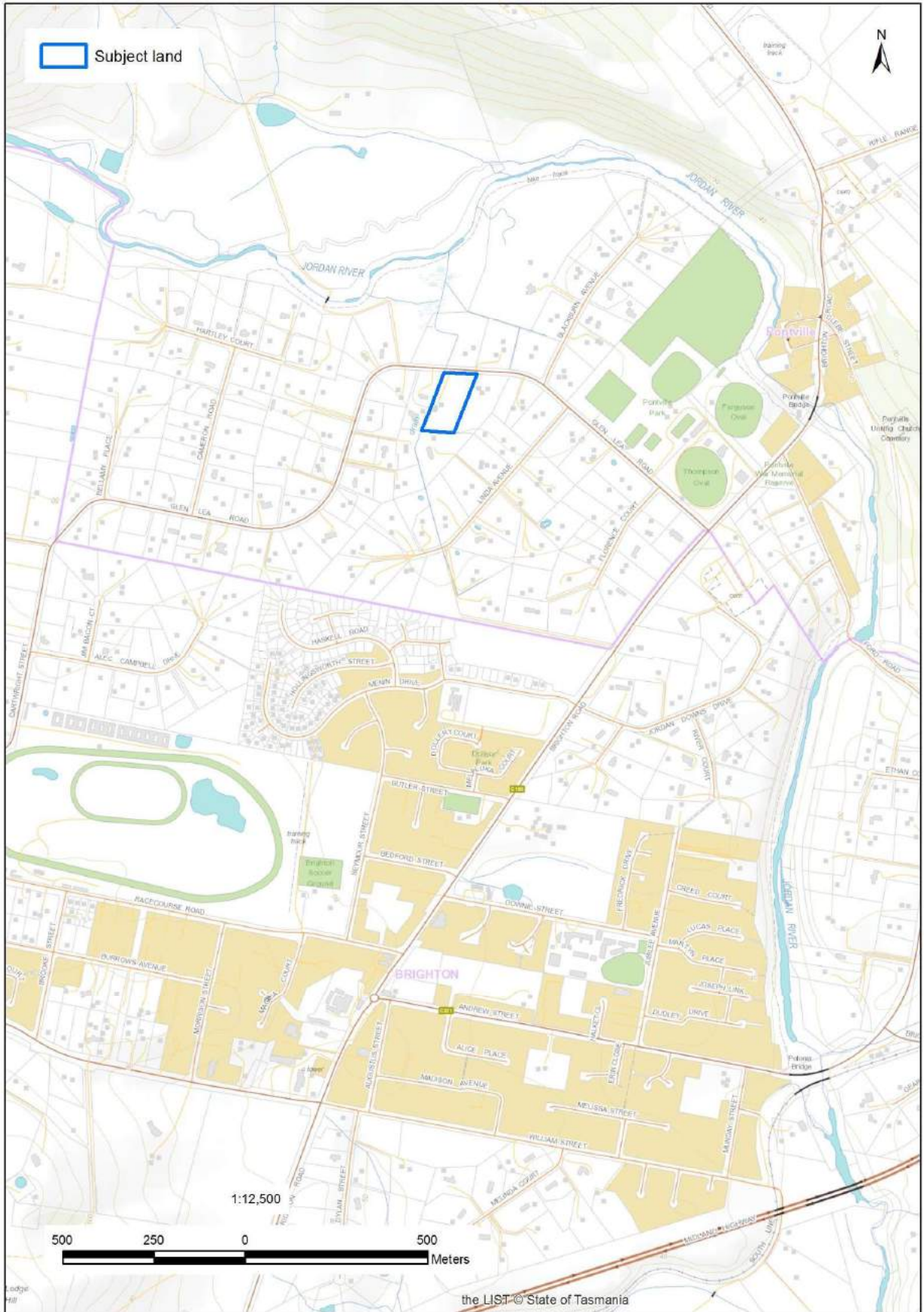


Figure 1. Location of the subject land

1.0 Introduction

This report has been prepared by Mr Jim Mulcahy, *Provisionally Accredited Person* under Section 60B of the *Fire Service Act 1979* (Accreditation number BFP-159).

The report has been prepared in support of a development application for a two lot subdivision at 13 Glen Lea Rd Brighton (see Figure 2). The subject land lies within the *Bushfire Prone Areas* overlay of the *Brighton Interim Planning Scheme 2015* (the Scheme).

1.1 Purpose

The planning system in Tasmania aims for an integrated approach to development in bushfire prone areas between subdivision and the future construction of dwellings. The detailed planning requirements aimed at delivering this integrated approach have been codified under *Planning Directive 5.1 - Bushfire-Prone Areas Code* (Tasmanian Planning Commission, 2017), which has in turn been reproduced in the Scheme as *E1.0 Bushfire Prone Areas Code* (the Code).

The purpose of the Code is “to ensure that use and development is appropriately designed, located, serviced, and constructed, to reduce the risk to human life and property, and the cost to the community, caused by bushfires”.

The purpose of this report is to facilitate the integrated approach between subdivision and future construction of dwellings on the subject land and to demonstrate that the proposed development complies with the relevant provisions of the Code and *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas* (AS 3959).

1.2 Scope

This report considers the bush-fire prone vegetation in the vicinity of the proposed subdivision, assesses the bushfire threat to current and future dwellings and outlines appropriate bushfire hazard management measures in respect of:

- minimum separation distances required for existing and future dwellings to achieve BAL-19 under table 2.4.4 of AS 3959;
- provision of *Hazard Management Areas* which deliver the required separation distances to achieve BAL-19 under table 2.4.4 of AS 3959;
- establishment and maintenance requirements and management recommendations for *Hazard Management Areas*;
- access for fire-fighting; and
- water supplies for fire-fighting.

1.3 Limitations

Statutory requirements

This report only deals with the potential bushfire risk to the proposed subdivision development. Other statutory requirements relating to the development are generally outside the scope of the report, although other planning issues which intersect with bushfire hazard management needs are referenced as appropriate.

Changing circumstances over time

The recommendations in this report are based on the surrounding vegetation at the time of the site inspection and the author's professional assessment of the fire hazard posed by that vegetation. Vegetation in an early successional state has been assessed based on what the vegetation will likely develop into if it is not managed. It is not possible, however, to accurately predict environmental changes over time and the impacts of those changes on the future bushfire hazard at the site, particularly where those outcomes are dependent on land management decisions on adjoining properties.

Limitations of scope

The attached *Bushfire Hazard Management Plan* defines an 'Indicative Building Area' for Lot 2 based on meeting the acceptable solutions for subdivision under the *Rural Living Zone* and the *Code*. In light of this limited scope, the following issues are worth noting.

- Section 11F (2) (a) of the *Tasmanian Building Act 2016 – Building Amendment (Bushfire-Prone Areas) Regulations 2016*, incorporating the *Director's Determination for Building in Bushfire-Prone Areas*, provides that a *Bushfire Hazard Management Plan* undertaken for the purposes of a subdivision approval can be utilised to satisfy the bushfire planning requirements of a subsequent application to build on a lot arising from that subdivision, "unless that bushfire hazard management plan is more than 6 years old."
- The *Indicative Building Area* for Lot 2 is larger than would generally be required for a single residential structure. A future dwelling constructed to BAL-19 (or higher) may be located anywhere within the *Indicative Building Area*. The required *Hazard Management Area* can be reduced to suit the actual building footprint as long as the minimum separation distances identified under the attached *Bushfire Hazard Management Plan* are maintained.
- The acceptable solutions under the *Rural Living Zone* require setbacks of 20m from front, side and rear boundaries. In defining the *Indicative Building Area* for Lot 2 it is presumed that side setbacks of 10m will be acceptable to Council under the performance criteria.

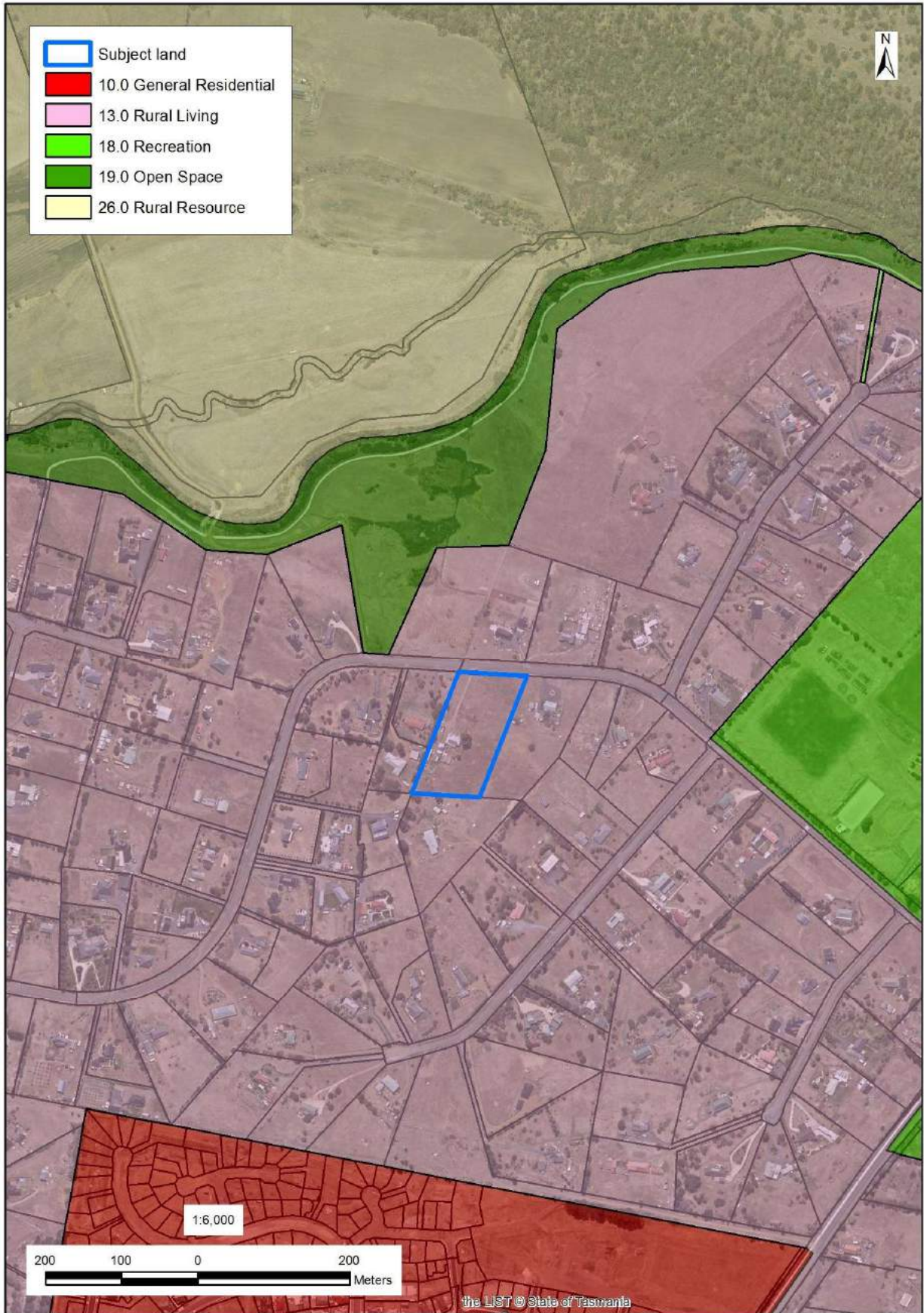


Figure 2. Zoning and context

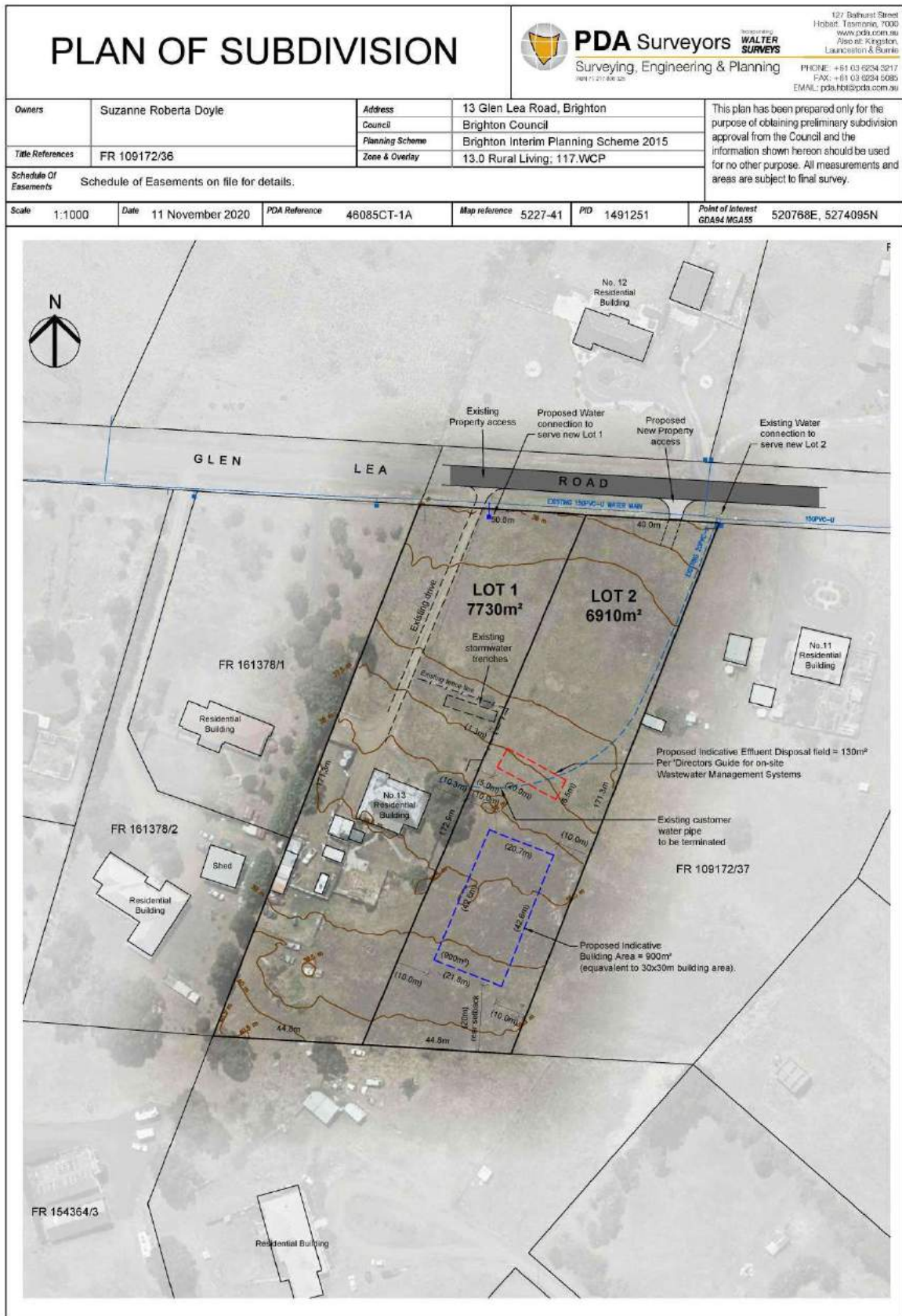


Figure 3. Subdivision proposal

2.0 Site description

2.1 The subject land

The subject land is 1.464ha of land in a single title located on the southern side of Glen Lea Rd in Brighton. The land has a north-easterly aspect and is relatively flat, falling from approximately 40.5m above sea level (asl) in the south-west corner to approximately 35.5m asl in the north-east corner at grades of around 3°. Vegetation on the subject land is predominantly comprised of pasture, with some lawn and exotic gardens around the existing dwelling.

2.2 Context

The subject land is bounded to the north by Glen Lea Rd. Except for an area of *Open Space* zoning to the north-west associated with the Jordan River, the land is surrounded in all directions by 'rural living' properties ranging in size from 1-2.5ha, most of which have been developed for residential use.

Most of the vegetation around the subject land is pasture that is managed to some degree through slashing, mowing and/or grazing. Surrounding properties typically feature some areas of more intensively managed 'lawn' and garden plantings in the immediate vicinity of dwellings. Several surrounding properties also feature linear boundary plantings of trees and shrubs for screening and shelter purposes, including the block immediately to the west.

3.0 Development proposal

A two-lot subdivision is proposed (see Figure 3), which will create a lot of 7730m² containing the existing dwelling (Lot 1) and a lot of 6910m² (Lot 2). The subdivision proposal includes the following features relevant to an assessment of bushfire hazard.

- Lot 2 can support an *Indicative Building Area* with separation distances from the lot boundaries that are sufficient for *Hazard Management Areas* (at BAL-19) to be accommodated entirely within the lot boundaries.
- There are outbuildings within 6m of the existing dwelling that need to be considered as part of the dwelling for the purposes of assessing bushfire hazard.
- The existing dwelling on Lot 1 can achieve separation distances from bushfire prone vegetation within the lot boundaries that meet the requirements of BAL-19.
- Existing water hydrants on Glen Lea Rd are not close enough to provide a compliant water supply for fire-fighting to service existing and future dwellings.
- Both lots are capable of supporting a compliant property access for fire-fighting and static water supplies for fire-fighting purposes.

4.0 Bushfire Threat Assessment

4.1 General

Fire Danger Index: FDI 50 (this index applies across Tasmania).

Bushfire History: the *Fire History* layer of the *Land Information System Tasmania* (LIST) shows that blocks immediately south of the subject land were affected by bushfire in 2002-3 (Broadmarsh/Bluff Rd).

Under ember attack and extreme conditions, the property could potentially be subject to bushfire attack from any direction. In terms of the probability of extreme fire weather conditions, the main hazard is from the north.

With appropriate management, current and future dwellings on the subject land are very unlikely to be subject to a head-fire attack, but the site is at risk from bushfire and the potential impacts of forest fires in the broader landscape should not be underestimated in terms of their potential to create ember attack on the site and to spark grass fires on and around the subject land.

4.2 Hazard Assessment

The subject land and surrounds were surveyed by the author on 3 December 2020 with reference to the draft subdivision layout and proposed *Indicative Building Area* for Lot 2. Information and images were collected which allowed assessment of *Bushfire Attack Level* (BAL) using *Method 1 (Simplified Procedure)* of AS3959.

Vegetation and slope were assessed within 500m of the subject land to provide context. A more detailed assessment was then undertaken for 100m in every direction from the existing dwelling and the *Indicative Building Area* on Lot 2. Minimum separation distances required for current and future dwellings to meet the requirements of BAL-19 under Table 2.4.4 of AS3959 were calculated for each combination of vegetation and slope and the separation distances overlaid to determine the 'primary hazard' and the effective slope under that hazard.

The current bushfire attack level (BAL) was then calculated for the existing dwelling and the *Indicative Building Area* to determine the separation distances and *Hazard Management Areas* required to meet the requirements of BAL-19 under Table 2.4.4 of AS3959 (see Figure 4 and Table 1). This assessment was used to prepare the attached *Bushfire Hazard Management Plan* (BHMP).

4.2 Bushfire-prone vegetation

For the purposes of this report, pasture or lawn in close proximity to a dwelling on the same lot, or in the same paddock as a dwelling on the same lot, has been classified as 'low threat vegetation'. Exotic gardens have also been classified as 'low threat vegetation'.

Bushfire-prone vegetation in the form of pasture occurs in all directions within 100m of the existing dwelling on Lot 1 and the *Indicative Building Area* on Lot 2. For the purposes of this report, most areas of pasture have been classified as *G (i) Grassland*.

Illustrative photos of vegetation on and around the subject land can be found at Appendix A.

5.0 Bushfire Protection Measures

5.1 Limitations on hazard management

There are no natural values or other considerations on the subject land that would limit hazard management potential.

5.2 Hazard Management Areas

The objectives of providing *Hazard Management Areas* are:

- to facilitate an integrated approach between subdivision and subsequent building on a lot;
- to provide for sufficient separation of building areas from bushfire-prone vegetation to reduce radiant heat levels, direct flame attack and ember attack at the building area; and
- to provide protection for lots at any stage of a staged subdivision.

5.2.1 Code provisions

The requirements for *Hazard Management Areas* within a subdivision are detailed in E1.6.1 of the Code.

The acceptable solutions under E1.6.1 A1 of the Code require that:

- (b) *The proposed plan of subdivision: ...*
- (iii) *shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL-19 in Table 2.4.4 of AS3959; ...*

5.2.2 Existing conditions

Land surrounding the existing dwelling on Lot 1 and the *Indicative Building Area* on Lot 2 is currently occupied either by low threat vegetation or pasture (*G i Grassland*). Most of the pasture on the subject land and on adjoining properties is currently managed through slashing, mowing and/or grazing.

5.2.3 Compliance

The bushfire hazard assessment (see Tables 1-2 and Figure 4) indicates that both lots require *Hazard Management Areas* to provide separation distances that will allow existing and future dwellings to meet the requirements of BAL-19 under Table 2.4.4 of AS3959.

The attached *Bushfire Hazard Management Plan* shows an *Indicative Building Area* for Lot 2 and defines *Hazard Management Areas* with sufficient separation distances from bushfire prone vegetation to allow current and future dwellings to meet the requirements of BAL-19.

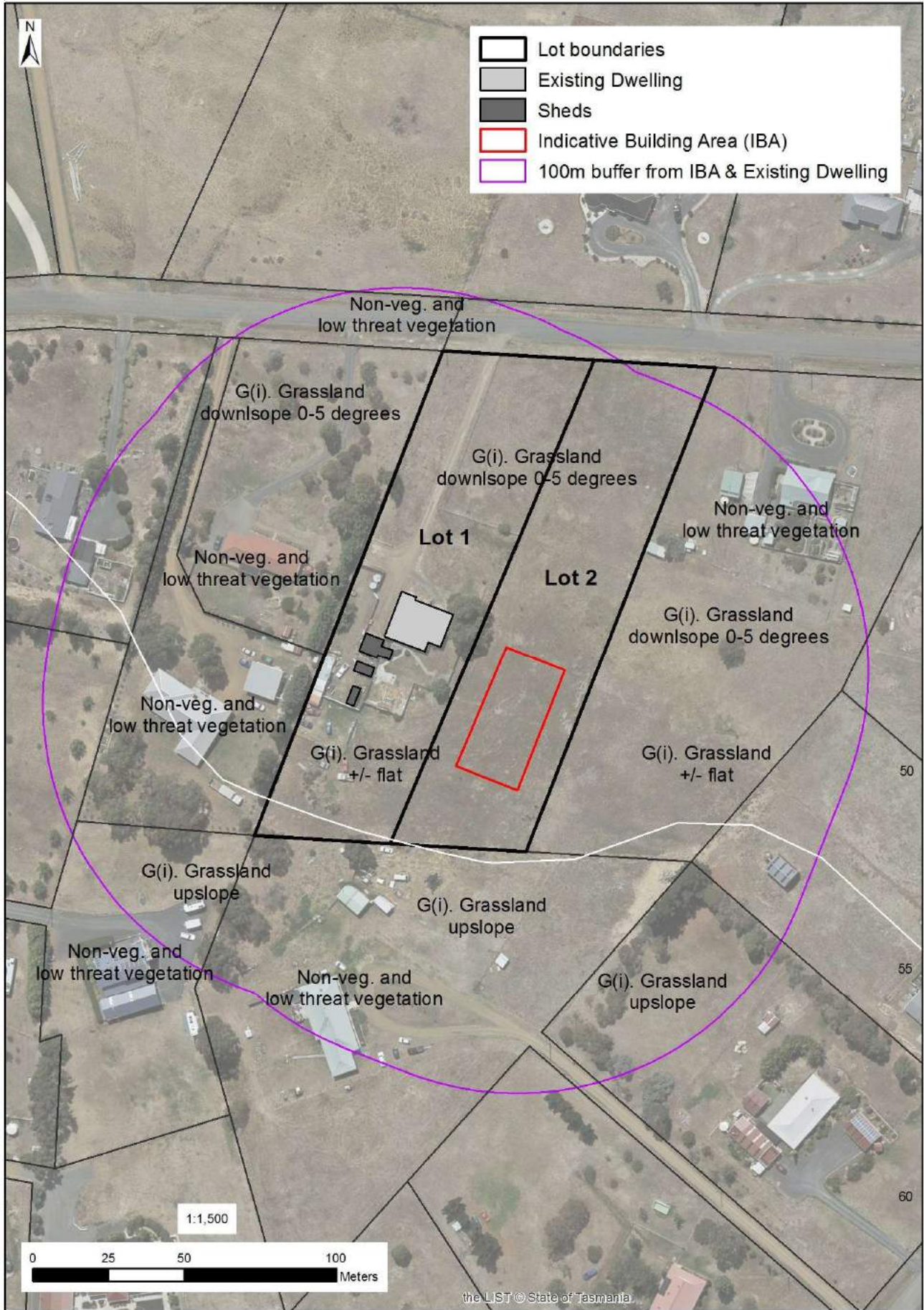


Figure 4. Bushfire Hazard Assessment Map

Table 1. Separation distance calculations for the existing dwelling and associate outbuildings on Lot 1

Direction	Vegetation Classification	Effective Slope under vegetation	Approx. distance from existing dwelling (m)	Current BAL rating	Separation distance to achieve BAL-19	Prescribed hazard management area
North	Low threat/non-veg. (lawn, garden & drive)*	-	0-30	-	-	11m
	G (i). Grassland	Downslope 3°	30-90	BAL-12.5	11-<16m	
	Low threat/non-veg. (road & verge)*	-	90-100	-	-	
East	Low threat/non-veg. (lawn & garden)*	-	0-6	-	-	To boundary (10m)
	G (i). Grassland	+/- flat across slope	6-100	BAL-29	10-<14m	
South	Low threat/non-veg. (lawn & garden)*	-	0-23	-	-	To fence (23m+)
	G (i). Grassland	Upslope	23-100	BAL-12.5	10-<14m	
West	Non veg (drive)	-	0-6	-	-	To boundary (17m+)
	Low threat/non-veg. (lawn, garden & drive)*	-	6-82	-	-	
	G (i). Grassland	+/- flat across slope	82-100	-	10-<14m	

Table 2. Separation distance calculations for Indicative Building Area on Lot 2

Direction	Vegetation Classification	Effective Slope under vegetation	Approx. distance from existing dwelling (m)	Current BAL rating	Separation distance to achieve BAL-19	Prescribed hazard management area
North	G (i). Grassland	Downslope 3°	0-100	BAL-FZ	11-<16m	11m
East	G (i). Grassland	+/- flat across slope	0-100	BAL-FZ	10-<14m	To boundary (10m)
	G (i). Grassland	Upslope	0-100	BAL-FZ	10-<14m	10m
West	G (i). Grassland	+/- flat across slope	0-55	BAL-FZ	10-<14m	To boundary (10m)
	Low threat/non-veg. (dwelling & garden)*	-	55-100	-	-	

5.2.4 Establishment and maintenance of Hazard Management Areas

To minimise bushfire hazard to current and future dwellings, land within *Hazard Management Areas* must be maintained as *low threat vegetation* and/or *non-vegetated land* for the life of the development. In making choices about landscaping and garden plantings, owners must consider the need to maintain effective *Hazard Management Areas* into the future.

Establishment and maintenance of *Hazard Management Areas* is largely a matter of formalising existing management - regular mowing, slashing and/or grazing of pasture /lawn surrounding the existing dwelling and the *Indicative Building Area* on Lot 2 (as well as the area within the *Indicative Building Area*).

General management guidelines for establishment and maintenance of *Hazard Management Areas* can be found in Schedule 1 of this report and the attached *Bushfire Hazard Management Plan*.

5.3 Fire-fighting access

The objectives for roads, property access and fire trails within a subdivision are:

- to allow safe access and egress for residents, fire fighters and emergency services personnel;
- to provide access to the bushfire-prone vegetation that allows both property to be defended when under bushfire attack and for hazard management works to be undertaken;
- to provide access to water supplies for fire appliances;
- that design and construction allow for fire appliances to be manoeuvred; and
- that design allows connectivity, and where needed, offers multiple evacuation points.

5.3.1 Code provisions for access

Existing hydrants on Glen Lea Rd are not close enough to provide compliant water supplies for fire-fighting to service the existing dwelling on Lot 1 or the furthest reaches of the *Indicative Building Area* on Lot 2. As a result, property access is required to access a compliant fire-fighting water point.

The requirements for property access within a subdivision are detailed in E1.6.2 and Table E2 of the Code. The content of Table E2 has been reproduced in Schedule 2 of this report. The acceptable solutions under clause E1.6.2 A1 require that:

- (b) *A proposed plan of subdivision showing ... the location of property access to building areas is included in a bushfire hazard management plan that:*
- (i) *demonstrates ... proposed private accesses will comply with Table E2 ...; and*
 - (ii) *is certified by the TFS or accredited person.*

5.3.2 Existing conditions

Glen Lea Rd is a sealed, Council-maintained road approximately 6m wide along the frontage to the subject land. It is compliant with the Code in respect of access for fire-fighting. The gravel driveway to the existing dwelling on Lot 1 is approximately 3m wide and terminates in a parking/turning area. It is not currently compliant with the Code but could be widened to provide a compliant access.

5.3.3 Compliance – access for fire-fighting

The *Indicative Property Access* provisions shown on the *Bushfire Hazard Management Plan* at Attachment A demonstrate that compliant property access for fire-fighting can be provided to both lots.

The exact location, alignment and engineering design for any property access to service Lot 2 will be detailed as part of a future development application for construction of a dwelling. The developers, consultants and contractors must ensure at this time that design and construction of the property access complies in all respects with the detailed standards outlined in Schedule 2 of this report.

5.4 Provision of water supplies for fire-fighting purposes

The objective in provision of water supply for fire-fighting purposes is that:

- adequate, accessible and reliable water supply for the purposes of fire-fighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bush fire-prone areas.

5.4.1 Code provisions

The requirements for provision of static water supplies for fire-fighting purposes are detailed in E1.6.3 A2 and Table E5 of the Code. The content of Table E5 has been reproduced in Schedule 3 of this report. The acceptable solutions under E1.6.3 A2 require that:

- (b) *the TFS or accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to fire-fighting, will be provided and located compliant with Table E5.*

5.4.2 Existing conditions

The development occurs in an area serviced with reticulated water supply by the water corporation, but existing hydrants along Glen Lea Rd are not close enough to provide compliant water supplies for fire-fighting to service the existing dwelling on Lot 1 or the furthest reaches of the *Indicative Building Area* on Lot 2. No new reticulated water supply or hydrants are proposed for fire-fighting purposes. As a result, for the purposes of this report it is assumed that static water supplies for fire-fighting in the form of water tanks will be used to service the development.

5.4.3 Compliance - water supplies for fire-fighting

The *Indicative Water Tanks for Fire-fighting* and the *Indicative Property Access* provisions shown on the *Bushfire Hazard Management Plan* at Attachment A demonstrate the capacity of both lots to accommodate static water supplies compliant with the Code.

The actual location and specifications of dedicated water tanks for fire-fighting purposes to service the lots is at the discretion of the owners/developers. If they choose not to locate tanks at the locations shown on the *Bushfire Hazard Management Plan*, they must ensure that the design and installation of tanks complies in all respects with the detailed standards outlined in Schedule 3 of this report.

6.0 Recommendations

It is recommended that:

- the existing driveway be widened and upgraded at the next available opportunity to provide property access compliant with the Code;
- a water tank dedicated to fire-fighting be installed at the next available opportunity to service the existing dwelling on Lot 1; and
- the construction elements of the existing dwelling on Lot 1 are considered with reference to the standards required under AS3959 for BAL-19 and if appropriate, the owners consider upgrading elements to make the building more resistant to bushfire attack.

7.0 Conclusions

The attached *Bushfire Hazard Management Plan* demonstrates the capacity of the subdivision to comply with the Code and AS3959 in respect of an *Indicative building area* for Lot 2, *Provision of hazard management areas, Public and fire-fighting access* and *Provision of water supply for fire-fighting purposes*. As a result, the *Bushfire Hazard Management Plan* has been certified.

8.0 References

- Standards Australia Limited (2009). *AS3959-2009 Construction of buildings in bushfire prone areas* (incorporating amendments 1, 2 & 3). Standards Australia, Sydney.
- Standards Australia Limited (2018). *AS3959:2018 Construction of buildings in bushfire prone areas*. Standards Australia, Sydney.
- Tasmanian Planning Commission (2017). *Planning Directive No.5.1 – Bushfire prone Areas Code*. Tasmanian Planning Commission, Hobart.
- Tasmanian Planning Commission (2019). *Brighton Interim Planning Scheme 2015*. Retrieved from iplan: <http://www.iplan.tas.gov.au>.
- The Bushfire Planning Group (2005). *Guidelines for development in bushfire prone areas of Tasmania – Living with fire in Tasmania*, Tasmania Fire Service, Hobart.

Appendix A. Illustrative photos of vegetation



Image 1 Closest hydrant on Glen Lea Rd relative to existing dwelling (at right)



Image 2 property access to existing dwelling on Lot 1

Appendix A. Illustrative photos of vegetation

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Image 3 Alignment of proposed property access to service Lot 2



Image 4 Existing turning area and potential hardstand west of existing dwelling on Lot 1

Appendix A. Illustrative photos of vegetation

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Image 5. Vegetation west of the existing dwelling on Lot 1 and potential tank site (at right)



Image 6 Lawn and pasture (Gi Grassland) north of the existing dwelling on Lot 1

Appendix A. Illustrative photos of vegetation



Image 7 Lawn and pasture (Gi Grassland) east of the existing dwelling on Lot 1



Image 8 Lawn directly south of the existing dwelling on Lot 1

Appendix A. Illustrative photos of vegetation



Image 9 Pasture (Gi Grassland) north of the Indicative Building Area on Lot 2



Image 10 Pasture (Gi Grassland) east of the Indicative Building Area on Lot 2

Appendix A. Illustrative photos of vegetation



Image 11 Pasture (Gi Grassland) south of the Indicative Building Area on Lot 2



Image 12 Pasture (Gi Grassland) west of the Indicative Building Area on Lot 2

Schedule 1. Guidelines for establishment and maintenance of *Hazard Management Areas*¹⁸

Hazard Management Areas

Where not explicit, the following general advice should be applied to both the management of existing vegetation and the design and establishment of new plantings. More detailed advice about the principles and practices involved with bushfire hazard management can be found in *Guidelines for Development in Bushfire-Prone Areas of Tasmania* (Tasmania Fire Service, 2005).

1. An annual inspection and maintenance of *Hazard Management Areas* should be conducted prior to summer or any other identified period of high fire risk.
2. Hazard management does not require the removal of all standing vegetation. Strategically retained or established areas of trees and shrubs can assist in mitigating bushfire risk by acting as an ember screen and wind break, particularly if comprised of relatively low flammability species.
3. To reduce the overall density of vegetation available to fuel a fire and to minimise potential for transmission of fire, areas of trees and shrubs should be thinned or separated to create discontinuous 'clumps' and a minimum 20m separation should be maintained between any retained/planted clumps.
4. Flammable vegetation should not be retained or planted directly adjacent to dwellings or in corridors which can form a 'wick' to the vicinity of dwellings.
5. A minimum 2m horizontal separation should be maintained between the canopies of any retained or planted trees and low branches should be removed to create a minimum 2m vertical separation between the tree canopy and underlying shrubs or ground cover.
6. No trees should overhang dwellings and retained or planted trees should ideally be sited a minimum distance of 1.5 times their mature height from dwellings.
7. Grassland, pasture and lawn must be kept short (<100mm) to act as 'low threat vegetation'.
8. Fine fuels such as leaves, bark and twigs should be removed from the ground periodically, particularly leading into summer or any other identified period of high fire risk.
9. Landscaping choices and management of flammable materials in the area immediately adjacent to dwellings is particularly important to minimise bushfire risk, particularly directly adjacent to flammable building elements (eg wooden decks and cladding) and glazed elements (eg windows and sliding glass doors).

It is recommended that non-combustible elements such as paths, paving and inorganic mulch (eg gravel or pebbles) are employed under and directly adjacent to dwellings and decks, with only minimal planting of relatively low-flammability vegetation (preferably low-growing shrubs and ground-cover).

Other appropriate landscaping choices in the vicinity of dwellings may include maintained lawn, swimming pools, ornamental gardens comprised of recognised 'low flammability' species, vegetable gardens and orchards.

10. Flammable materials such as stored fuel (including gas cylinders), firewood, building materials and organic mulch (eg wood chips or bark) should not be stored under or directly adjacent to dwellings and decks.

Schedule 2. Requirements for property access in the subdivision to comply with
E1.0 Bushfire Prone Areas Code

Property access for fire-fighting

Property access is required for a fire appliance to access a fire-fighting water point on both lots and must meet the following standards to comply with the Code:

- (a) all-weather construction;
- (b) load capacity of at least 20 tonnes, including for bridges and culverts;
- (c) minimum carriageway width of 4 metres;
- (d) minimum vertical clearance of 4 metres;
- (e) minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
- (f) cross falls of less than 3 degrees (1:20 or 5%);
- (g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;
- (h) curves with a minimum inner radius of 10 metres;
- (i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and
- (j) terminate with a turning area for fire appliances provided by one of the following:
 - (i) a turning circle with a minimum inner radius of 10 metres;
 - (ii) a property access encircling the building; or
 - (iii) a hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.

Schedule 3. Requirements for static water supply for fire-fighting to comply with
E1.0 Bushfire Prone Areas Code

Provision of static water supplies for fire-fighting purposes

Static water supplies dedicated for fire-fighting purposes are required to service both lots and must meet the following standards to comply with the Code.

A. Distance between building area to be protected and water supply

The following requirements apply:

- a) the building area to be protected must be located within 90m of the fire-fighting water point of a static water supply; and
- b) the distance must be measured as a hose lay, between the fire-fighting water point and the furthest part of the building area.

B. Static Water Supplies

A static water supply:

- a) may have a remotely located off-take connected to the static water supply;
- b) may be a supply for combined use (fire-fighting and other uses) but the specified minimum quantity of fire-fighting water must be available at all times;
- c) must be a minimum of 10,000l per building area to be protected; this volume of water must not be used for any other purpose including fire-fighting sprinklers and spray systems;
- d) must be metal, concrete or lagged by non-combustible materials if above ground; and
- e) if a tank can be located so it is shielded in all directions in compliance with section 3.5 of *Australian Standards AA3959-2009 Construction of buildings in bushfire-prone areas*, the tank may be constructed of any material, provided that the lowest 400mm of the tank is protected by:
 - (i) metal;
 - (ii) non-combustible material; or
 - (iii) fibre-cement a minimum of 6mm thickness.

C. Fittings, pipework and accessories (including stands and tank supports)

Fittings and pipework associated with a fire-fighting water point for a static water supply must:

- a) have a minimum nominal internal diameter of 50mm;
- b) be fitted with a valve with a minimum nominal internal diameter of 50mm;
- c) be metal or lagged by non-combustible materials if above ground;
- d) if buried, have a minimum depth of 300mm (compliant with *AS/NZS 160-19600.1-2003 clause 5.23*);
- e) provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire-fighting equipment;
- f) ensure the coupling is accessible and available for connection at all times;
- g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);

Schedule 3. Requirements for static water supply for fire-fighting to comply with
E1.0 Bushfire Prone Areas Code

- h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and
- i) if a remote offtake is installed, ensure the offtake is in a position that is:
 - (i) visible;
 - (ii) accessible to allow connection by fire-fighting equipment;
 - (iii) at a working height of 450-600mm above ground level; and
 - (iv) protected from possible damage, including damage by vehicles.

D. Signage for static water connections

The fire-fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:

- a) comply with water tank signage requirements within *Australian Standard AS2304-2011 Water storage tanks for fire protection systems*; or
- b) comply with the Tasmania Fire Service Guideline:
 - (i) marked with the letter 'W' contained within a circle, with the letter in upper case and not less than 100mm in height;
 - (ii) marked in fade-resistant material with white reflective lettering and circle on a red background;
 - (iii) located within 1m of the water connection point in a situation which will not impede access or operation; and
 - (iv) no less than 400mm above ground.

E. Hardstand

A hardstand area for fire appliances must be:

- a) no more than 3m from the fire-fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);
- b) no closer than 6m from the building area to be protected;
- c) a minimum width of 3m constructed to the same standard as the carriageway; and
- d) connected to the property access by a carriageway equivalent to the standard of the property access.

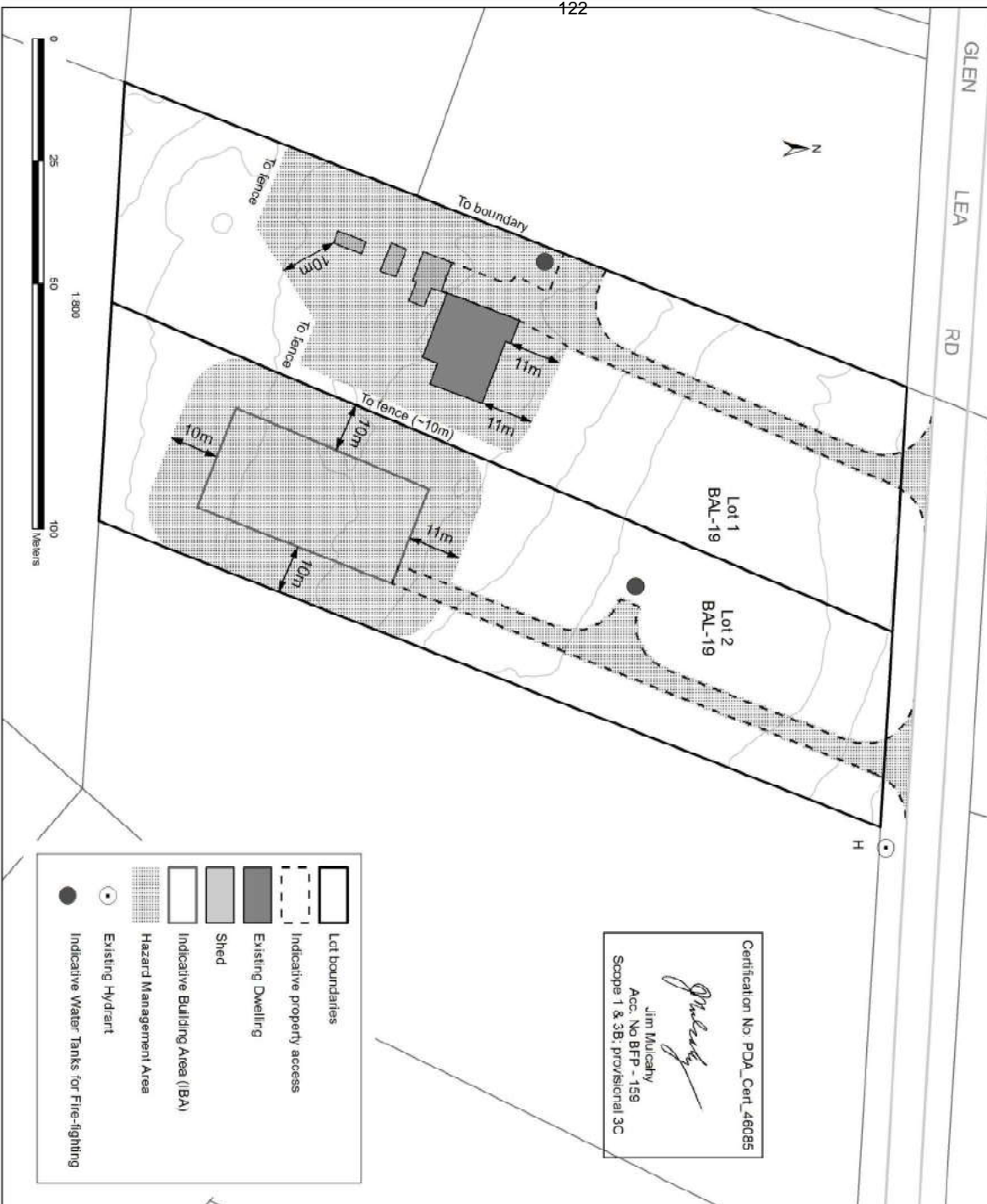
Address: 13 Glen Lea Rd Brighton
 Title(s): FR 109172/36
 Scheme: Brighton Interim Planning Scheme 2015

BUSHFIRE HAZARD MANAGEMENT PLAN



Date: 11 December 2020
 PDA Reference: 46085CT
 Map Reference: 46085CT_BHWP_v1

This plan has been prepared for the purpose of obtaining subdivision approval from Brighton Council. It should be read in conjunction with 46085CT_Bushfire Hazard Report_v1 (PDA, 11 December 2020). All relevant consultants and contractors should be provided with a full A3 copy of this plan. Dimensions and areas are subject to final survey. Some details are indicative only to demonstrate the concept for compliance.



Certification No: PDA_Cert_46085
 Jim Mulcahy
 Acc. No BFP - 159
 Scope 1 & 3B; provisional 3C

1. Hazard Management Areas

- a. Hazard Management Areas must be established at the time of development and maintained as low threat vegetation and/or 'non-vegetated land' (as defined by Clause 2.2.3.2 of AS3959-2009) for the life of the development.
- b. No trees should overhang dwellings and related or planted trees should ideally be sited a minimum distance of 1.5 times their mature height away from buildings.
- c. Trees and shrubs should be thinned or separated to create discontinuous clumps and a minimum 20m separation should be maintained between retained or planted clumps.
- d. A minimum 2m horizontal separation should be maintained between the canopies of any retained or planted trees and low branches should be removed to create a minimum 2m vertical separation between the tree canopy and underlying shrubs or ground cover.
- e. Grassland, pasture & lawn must be kept short (<100mm).
- f. Fine fuels such as leaves, bark and twigs should be removed from the ground periodically, particularly leading into summer or any other identified period of high fire risk.
- g. Flammable vegetation should not be retained or planted under or directly adjacent to dwellings (particularly decks, flammable cladding and glazed elements) or in corridors which can act as a 'wick' to channel fire to dwellings.
- h. Flammable materials such as firewood, building materials, organic mulch and fuel should not be stored under decks or dwellings nor directly adjacent to dwellings.

2. Fire-fighting Access

- a. Glen Lea Rd is compliant with the provisions of Table E1 of the Bushfire Prone Areas Code (the Code)
- b. The existing hydrant on Glen Lea Rd is more than 120m hose lay from the furthest parts of the Existing Dwelling and the Indicative Building Area on Lot 2, so property access is required to access a fire-fighting water point.
- c. This plan shows Indicative Property Access to service both lots which is 4m wide, has compliant turning arcs and features compliant turning areas providing handstands within 3m of Indicative Water Tanks for fire-fighting.
- d. At the time of construction, the developer must ensure that the property access to Lot 2 complies in all respects with Table E2 of the Code.

3. Water Supplies for Fire-fighting

- a. Reticulated water supply is available to the site, but the existing hydrant on Glen Lea Rd is more than 120m hose lay from the furthest parts of the Existing Dwelling and the Indicative Building Area on Lot 2.
- b. This plan shows Indicative Water Tanks for Fire-fighting which are located within 3m of a handstand, more than 5m from the Existing Dwelling/Indicative Building Area and within 90m hose lay of the furthest parts of the Existing Dwelling/Indicative Building Area.
- c. At the time of installation, the developer must ensure that static water supplies for fire-fighting comply in all respects with E1.5.3 and Table E5 of the Code.

4. Construction of future dwellings

- a. This plan only certifies that a future dwelling constructed within Indicative Building Areas on Lot 2 can achieve the separation distances required to allow construction to BAL-19.

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

13 Glen Lea Rd Brighton

Certificate of Title / PID:

FR 109172/36

2. Proposed Use or Development

Description of proposed Use and Development:

Two lot subdivision

Applicable Planning Scheme:

Brighton Interim Planning Scheme 2015

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
46085CT_Bushfire Hazard Report_v1	Jim Mulcahy	11 December 2020	1
46085CT_BHMP_v1	Jim Mulcahy	11 December 2020	1

¹ This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/>	E1.4 / C13.4 – Use or development exempt from this Code	
	Compliance test	Compliance Requirement
<input type="checkbox"/>	E1.4(a) / C13.4.1(a)	Insufficient increase in risk

<input type="checkbox"/>	E1.5.1 / C13.5.1 – Vulnerable Uses	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
<input type="checkbox"/>	E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

<input type="checkbox"/>	E1.5.2 / C13.5.2 – Hazardous Uses	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
<input type="checkbox"/>	E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

<input checked="" type="checkbox"/>	E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
<input type="checkbox"/>	E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

<input type="checkbox"/>	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

<input type="checkbox"/>	E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name:	Jim Mulcahy	Phone No:	6234 3217
Postal Address:	127 Bathurst St Hobart 7000	Email Address:	Jim.Mulcahy@pda.com.au
Accreditation No:	BFP – 159	Scope:	1 & 3B, provisional 3C

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

- Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name:

Jim Mulcahy

Date: 24 December 2020

Certificate Number: PDA_Cert_46085

(for Practitioner Use only)

GEOTECH 21-041

ROCK SOLID GEOTECHNICS PTY LTD

21/2/2021

CLIENT:

Mr Josh Doyle

c/ PDA Surveyors – Mr Craig Terry

Craig.Terry@pda.com.au

Peter Hofto

163 Orielson Road

ORIELTON

TAS 7172

0417 960 769

peter@rocksolidgeotechnics.com.au**Geotechnical Assessment - Subdivision of Land at 13 Glen Lea Road, Pontville**

This report assesses the onsite wastewater potential of the land designated for a two-lot subdivision at 13 Glen Lea Road, Pontville Bay (Figure 1).

Number 13 Glen Lea Road will be divided into Lot 1 (7730m²) and Lot 2 (6910m²).

This assessment considers investigation requirements outlined in a RFI from the Brighton Council, specifically:

1 Please provide a report from a qualified wastewater designer stating:

A That the location of the existing wastewater system is satisfactory; and

B That a wastewater system is suitable for the proposed new lot.

INVESTIGATION

A field survey was completed on Thursday 18 February, 2021, encompassing field mapping of geological and geomorphological features and hazards to assess the site for onsite wastewater disposal potential. A test holes was completed Lot 2 (4WD mounted SAMPLA25 mechanical auger with 100mm diameter solid flight augers).

The Mines Department 1:25000 Digital Geological Map 'Tea Tree' indicates that the site is underlain by Triassic sediments.

Mr Brent Bastian (Senior Environmental Health Officer – Sorell Council) kindly supplied a copy of the plan of the current onsite wastewater system for the residence at 13 Glen Lea Road (Figure 2).

A That the location of the existing wastewater system is satisfactory.

The current 5-bedroom residence on Lot 1 is serviced with a split blackwater and greywater system.

The blackwater is collected in a septic tank, and discharges to an absorption trench in a Land Application Area sited to the northeast of the residence (Plate 1).

Plate 1 – looking to the northeast at the blackwater LAA from the residence. The LAA lies this side of the small tree.

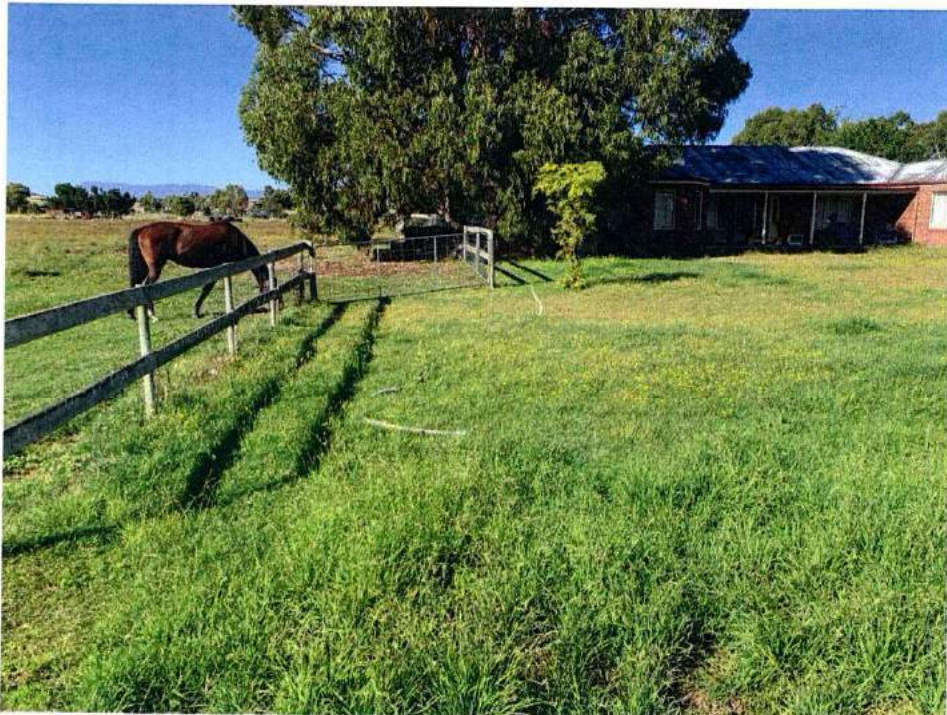


The greywater is collected in a sump tank fitted with a submersible pump (located on the eastern side of the residence), and discharges to the surface of the land to the northeast of the residence via a movable flexible hose (Plates 2 & 3).

Plate 2 – greywater sump tank - fitted with a submersible pump.



Plate 3 – Looking to the south at the residence with the greywater movable flexible hose in the foreground.



The List Map Aerial Photo (Figure 3) shows the blackwater trench in proximity to the internal fence lines. The land at the blackwater LAA slopes to the north / northeast at 2-3 degrees.

The blackwater LAA (absorption trench) will need to be a minimum of 1.5m from the proposed new boundary between Lots 1 & 2. This is outlined in the Director's Guidelines for Onsite Wastewater – setback distances – A3 of the compliance table attached below (1.5m minimum setback distance from side-slope boundary).

The eastern end of the blackwater trench is 1.5m from the proposed new internal boundary between Lots 1 & 2. The location of the existing wastewater system is therefore satisfactory.

As the greywater surface discharge hose is movable it can currently be moved away from the proposed boundary, so as not to impact on the land in proposed Lot 2.

B That a wastewater system is suitable for the proposed new lot.

Proposed Lot 2 is a 6910m², vacant block. There is no evidence of any geotechnical hazards on the site. The site is covered in grass and minor reeds, and is devoid of trees. The land generally slopes to the northeast at between 2 and 3 degrees.

A test hole was completed to assess the site for onsite wastewater disposal suitability. The location of the test hole is marked on Figure 1. The profile encountered in Test Hole #1 consisted of:

0.00 – 0.20m	SAND: fine grained, brown / greyish brown, rootlets - TOPSOIL
0.20 – 0.70m	SAND: fine grained, light grey, dry
0.70 – 1.25m	clayey SAND: fine to medium grained, greyish brown, 20-25% clay, moist
1.25 – 2.10m	sandy CLAY / clayey SAND: medium plasticity clay, fine to medium grained sand, brown / greyish brown, moist
2.10m+	Hole terminated at required depth – 2.10m.

Groundwater was not encountered in the hole.

The site is classified as CLASS 1 (SAND) over CLASS 4 (clay LOAM).

Lot 2 has ample suitable land for the installation of an onsite wastewater system for a single residence.

Plate 4 – Lot 2 – Test Hole #1.



SITE AND SOIL EVALUATION REPORT

Lot 2 - 13 Glen Lea Road, Pontville

<p><u>Soil Category:</u> (as stated in AS/NZS 1547-2000) 1,...2,...3,...4,...5,...6</p> <p><u>Geology:</u></p>	<p>Modified Emerson Test Required</p> <p>Triassic sediments</p>	<p>No</p>
<p><u>Slope:</u></p> <p><u>Drainage lines / water courses:</u></p> <p><u>Vegetation:</u></p> <p><u>Site History: (land use)</u></p>	<p>2-3 degrees</p> <p>Nil</p> <p>Grass</p> <p>Vacant land</p>	

<u>Aspect:</u>	Northeast
<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>Date of Site Evaluation:</u>	18-2-2021
<u>Weather Conditions:</u> (on the day of evaluation and during the last week)	Fine
<u>Name:</u>	Peter Hofto - Rock Solid Geotechnics Pty Ltd
<u>Signed:</u>	

A LAA must also be in a suitable location to be acceptable. It is therefore logical that the LAA setback distance requirements in the Director's Guidelines are also addressed.

Compliance Table Directors Guidelines for OSWM		
Acceptable Solutions	Performance Criteria	Compliance achieved by
5.1 To ensure sufficient land is available for sustainable onsite wastewater management for buildings.		
A1 A new dwelling must be provided with a LAA that complies with Table 3.	P1 A new dwelling must be provided with a LAA that meets all of the following: a) The LAA is sized in accordance with the requirements of AS/NZS 1547; and 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 A1 Class 4 site. 120m ² of LAA required /bedroom.
7. Standards for Wastewater Land Application Areas		
A1 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	P1 The LAA is located so that the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.	Complies with A1 LAA can be >6m from any building

<p>building;</p> <p>(ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building;</p> <p>(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.</p>		
<p>A2</p> <p>Horizontal separation distance from downslope surface water to a LAA must comply with (a) or (b)</p> <p>(a) be no less than 100m; or</p> <p>(b) be no less than the following:</p> <p>(i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or</p> <p>(ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to downslope surface water.</p>	<p>P2</p> <p>Horizontal separation distance from downslope surface water to a LAA must comply with all of the following:</p> <p>a) Setbacks must be consistent with AS/NZS 1547 Appendix R;</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 A2</p> <p>LAA > 100m from any surface water.</p>
<p>A3</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; &</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>P3</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> <p>LAA to be minimum 1.5m setback from side-slope or upslope property boundary.</p> <p>2-3° slope.</p> <p>Primary treated effluent minimum 6m setback from lower northern property boundary.</p>
<p>A4</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>P4</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 A4</p> <p>No known potable bores within 50m of the site.</p>
<p>A5</p> <p>Vertical separation distance between groundwater & 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>P5</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 A5</p> <p>Groundwater not encountered.</p>
<p>A6</p> <p>Vertical separation distance between a limiting layer & 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>P6</p> <p>Vertical setback must be consistent with AS/NZS1547 Appendix R.</p>	<p>Complies with A6</p> <p>Limiting Layer not encountered.</p>

RECCOMENDATIONS

The current wastewater system that services the residence at 13 Glen Lea Road is wholly contained on proposed Lot 1.

The location of the existing wastewater system on proposed Lot 1 is satisfactory.

Proposed Lot 2 can sustain an onsite wastewater system for a single residence.



Peter Hofto

Rock Solid Geotechnics P/L

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.

Any assessment that has included an onsite wastewater system design will require a further site visit / inspection once the system has been installed. 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.

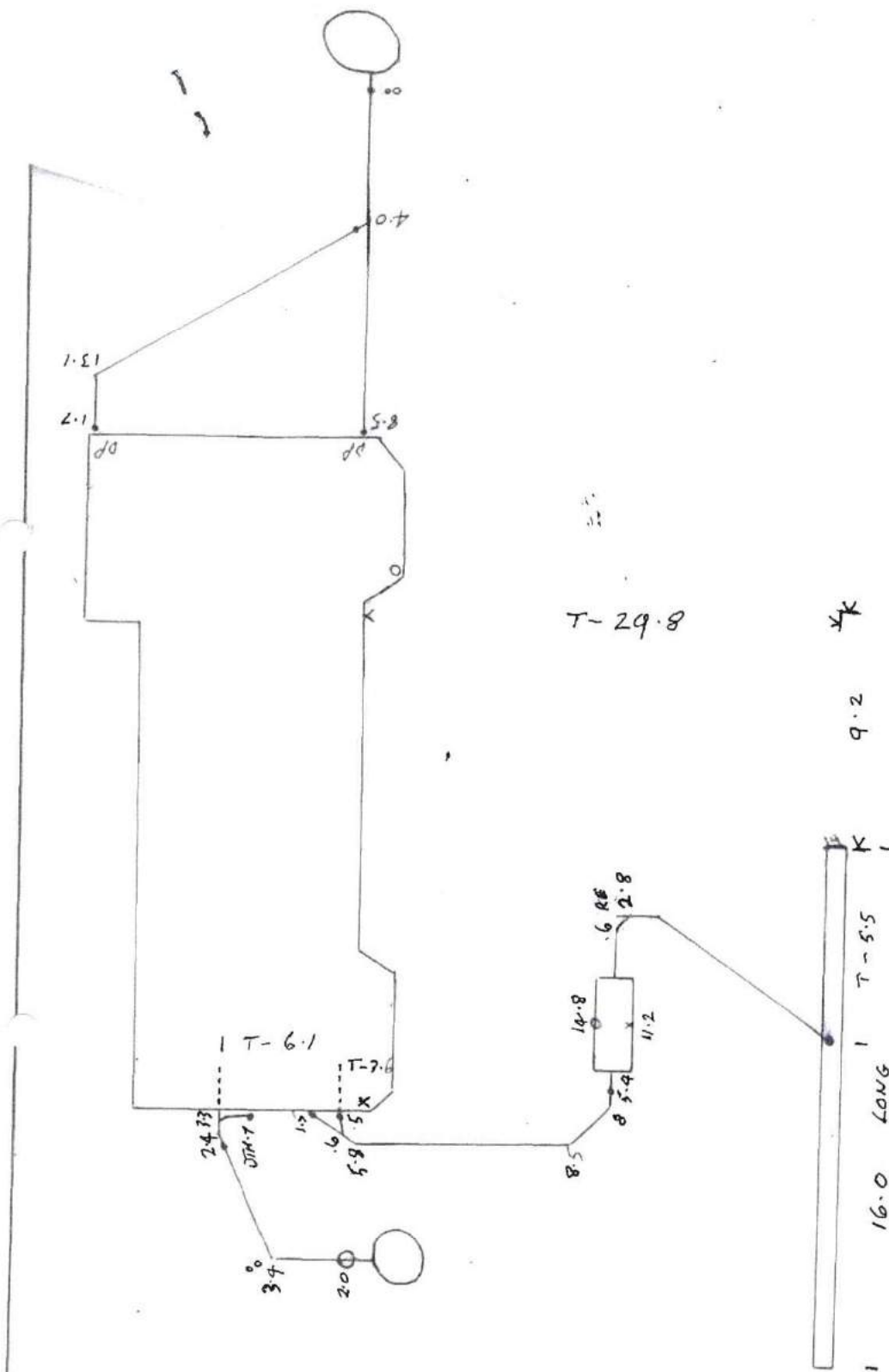
RSG is not responsible for the correct installation of wastewater systems. Any wastewater installation is the sole responsibility of the owner/agent and certified plumber. Any variation to the wastewater design must be approved by RSG, and an amended Special Plumbing Permit obtained from the relevant 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



1000805.032

FIGURE

BUILDER:

DESIGNED: *RB*

DRAINER: N. JEFFREY

DATE: 29-8-96

B/A No. 110/96

SEPTIC TANK No. 1343

LOCATION: 13 GLEN LEA RD.





GDA94 MGA55 : 520954E, 5274173N 1:846 **Disclaimer and Copyright Notice**

Submission to Planning Authority Notice

Council Planning Permit No.	SA 2020/049	Council notice date	25/01/2021
TasWater details			
TasWater Reference No.	TWDA 2021/00098-BTN	Date of response	04/02/2021
TasWater Contact	Georgia Bowen	Phone No.	0467 795 944
Response issued to			
Council name	BRIGHTON COUNCIL		
Contact details	development@brighton.tas.gov.au		
Development details			
Address	13 GLEN LEA RD, PONTVILLE	Property ID (PID)	1491251
Description of development	Subdivision - 2 lots		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
PDA Surveyors	Plan of Subdivision / 46085CT-1A	-	11/11/2020
Conditions			
<p>Pursuant to the <i>Water and Sewerage Industry Act 2008 (TAS)</i> Section 56P(1) TasWater imposes the following conditions on the permit for this application:</p> <p>CONNECTIONS, METERING & BACKFLOW</p> <ol style="list-style-type: none"> 1. A suitably sized water supply with metered connections to each lot of the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost. 3. Prior to commencing construction of the subdivision/use of the development, any water connection utilised for construction must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. <p>DEVELOPMENT ASSESSMENT FEES</p> <ol style="list-style-type: none"> 4. The applicant or landowner as the case may be, must pay a development assessment fee of \$211.63, to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date paid to TasWater. <p>The payment is required within 30 days of the issue of an invoice by TasWater.</p>			

Advice

General

For information on TasWater development standards, please visit <http://www.taswater.com.au/Development/Development-Standards>

For application forms please visit <http://www.taswater.com.au/Development/Forms>

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- (a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure.
Further information can be obtained from TasWater
- (b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies
- (c) TasWater will locate residential water stop taps free of charge

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by



Jason Taylor
Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au



Application for Planning Approval

Land Use Planning and Approvals Act 1993

APPLICATION NO.
DA2020/416

LOCATION OF AFFECTED AREA
27 RIVIERA DRIVE, OLD BEACH

DESCRIPTION OF DEVELOPMENT PROPOSAL
MULTIPLE DWELLINGS (1 ADDITIONAL)

THE APPLICATION MAY BE VIEWED AT www.brighton.tas.gov.au AND AT THE COUNCIL OFFICES, 1 TIVOLI ROAD, OLD BEACH. ANY PERSON MAY MAKE WRITTEN REPRESENTATIONS CONCERNING AN APPLICATION UNTIL **18TH MARCH 2021** ADDRESSED TO THE GENERAL MANAGER, 1 TIVOLI ROAD, OLD BEACH, 7017 OR BY EMAIL AT development@brighton.tas.gov.au. REPRESENTATIONS SHOULD INCLUDE A DAYTIME TELEPHONE NUMBER TO ALLOW COUNCIL OFFICERS TO DISCUSS, IF NECESSARY, ANY MATTERS RAISED.

JAMES DRYBURGH
GENERAL MANAGER

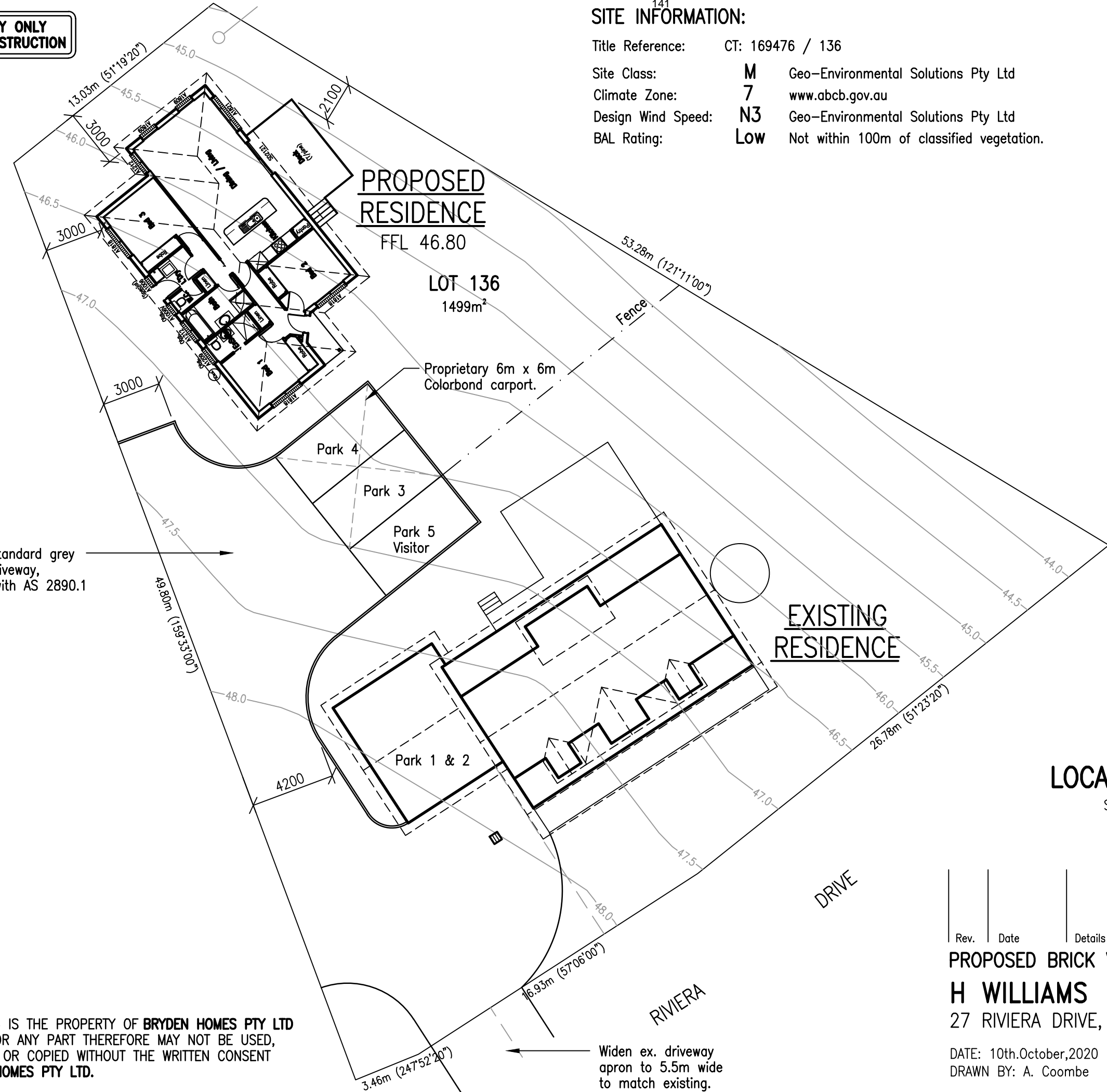
**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**

¹⁴¹
SITE INFORMATION:

Title Reference: CT: 169476 / 136
 Site Class: **M** Geo-Environmental Solutions Pty Ltd
 Climate Zone: **7** www.abcb.gov.au
 Design Wind Speed: **N3** Geo-Environmental Solutions Pty Ltd
 BAL Rating: **Low** Not within 100m of classified vegetation.

Notes:

1. All work to be carried out in accordance with The Building Code of Australia, The HIA Specification, Brighton Council By-Laws and approval.
2. Builder to check and verify all dimensions, set-outs and levels prior to commencement of any building works.
3. All plumbing shall be in accordance with Local Council By-Laws and the National Plumbing and Drainage Code AS 3500.
4. Walls and roofs are to be framed, fixed and braced in accordance with AS 1684. All timber sizes are in direct reference to AS 1684 and manufactured sizes must not be undersized to those specified.
5. All glazing must conform to the requirements of AS 1288 and the BCA Part 3.6.
6. Smoke alarms shall be fitted in accordance with AS 3786 and the BCA Part 3.7.2. Connect to consumer mains power.
7. Provide water resistant plasterboard and splash backs to wet areas all in accordance with the BCA Part 3.8.1. and/or AS 3740.
8. O.R.G. To be located a minimum of 150mm below Finished Floor Level.

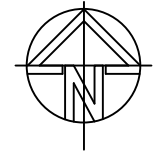


DRAWING SCHEDULE:

- D01 LOCATION PLAN
- D02 FLOOR PLAN
- D03 ELEVATIONS
- D04 DRAINAGE PLAN

LOCATION PLAN

Scale 1:200



Rev.	Date	Details

**PROPOSED BRICK VENEER RESIDENCE for
H WILLIAMS
27 RIVERA DRIVE, OLD BEACH**

DATE: 10th.October,2020
DRAWN BY: A. Coombe

SCALES: 1:200,
Accreditation No: CC104R

D01

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**PROPOSED
RESIDENCE**
FFL 46.80

3.1.2.3 Surface Water Drainage

- (a) External finished surface to give a slope of not less than 50mm over the first 1m from the building.
- (b) Finished slab height of slab-on-ground must be not less than:-
 - 150mm above finished ground level;
 - 100mm above sandy, well drained areas;
 - 50mm above paved or concentrated areas that slope away from the building in accordance with (a).

Connection of Downpipes:

The builder shall ensure that all downpipes are connected to the stormwater drainage system as soon as possible to prevent any erosion, swelling or saturation of susceptible foundation soils.

Provide flexible couplings to plumbing fittings in accordance with BCA requirements.

Notes:

1. All work to be carried out in accordance with The Building Code of Australia, The HIA Specification, Brighton Council By-Laws and approval.
2. Builder to check and verify all dimensions, set-outs and levels prior to commencement of any building works.
3. All plumbing shall be in accordance with Local Council By-Laws and the National Plumbing and Drainage Code AS 3500.
4. Walls and roofs are to be framed, fixed and braced in accordance with AS 1684. All timber sizes are in direct reference to AS 1684 and manufactured sizes must not be undersized to those specified.
5. All glazing must conform to the requirements of AS 1288 and the BCA Part 3.6.
6. Smoke alarms shall be fitted in accordance with AS 3786 and the BCA Part 3.7.2. Connect to consumer mains power.
7. Provide water resistant plasterboard and splash backs to wet areas all in accordance with the BCA Part 3.8.1. and/or AS 3740.
8. O.R.G. To be located a minimum of 150mm below Finished Floor Level.

SITE PLUMBING NOTES

Waste Pipe Key

- | | |
|-----------|-------|
| 1. W.C. | 100 Ø |
| 3. Sink | 50 Ø |
| 4. Basin | 50 Ø |
| 5. Bath | 40 Ø |
| 6. Shower | 50 Ø |
| 7. Trough | 50 Ø |
| V. Vent | 50 Ø |

Hot and Cold water reticulation shall be generally 20 Ø and 15 Ø to fixtures.

Stormwater pipework shall be DN 100 UPVC Class SN6 unless noted otherwise.

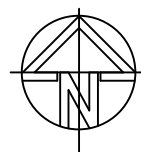
Sewer pipework shall be DN 100 UPVC Class SN6 unless noted otherwise.

All downpipes Ø90 u.n.o.

Proposed standard grey concrete driveway, compliant with AS 2890.1

DRAINAGE PLAN

Scale 1:200



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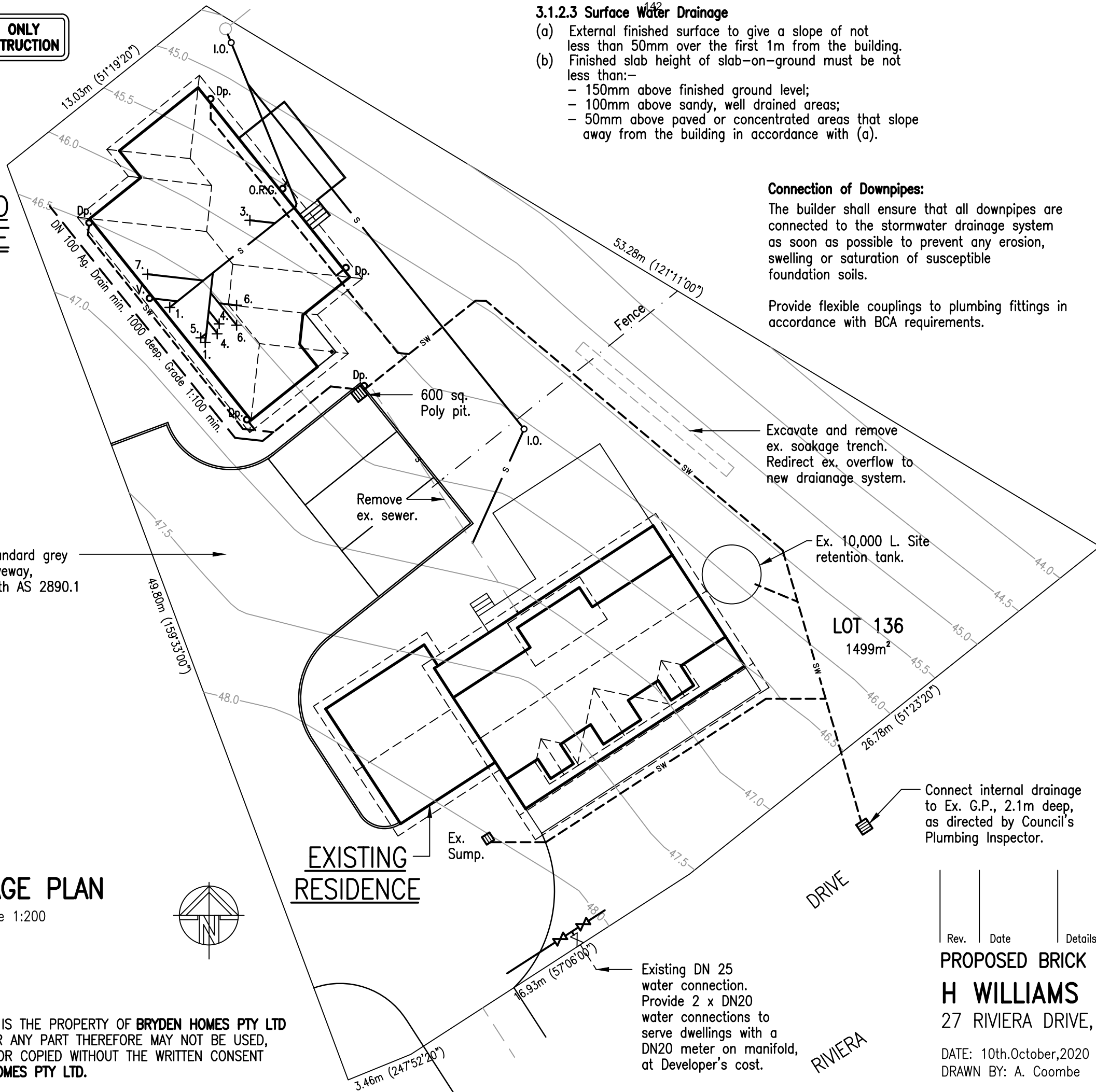
Rev. Date Details

**PROPOSED BRICK VENEER RESIDENCE for
H WILLIAMS**
27 RIVIERA DRIVE, OLD BEACH

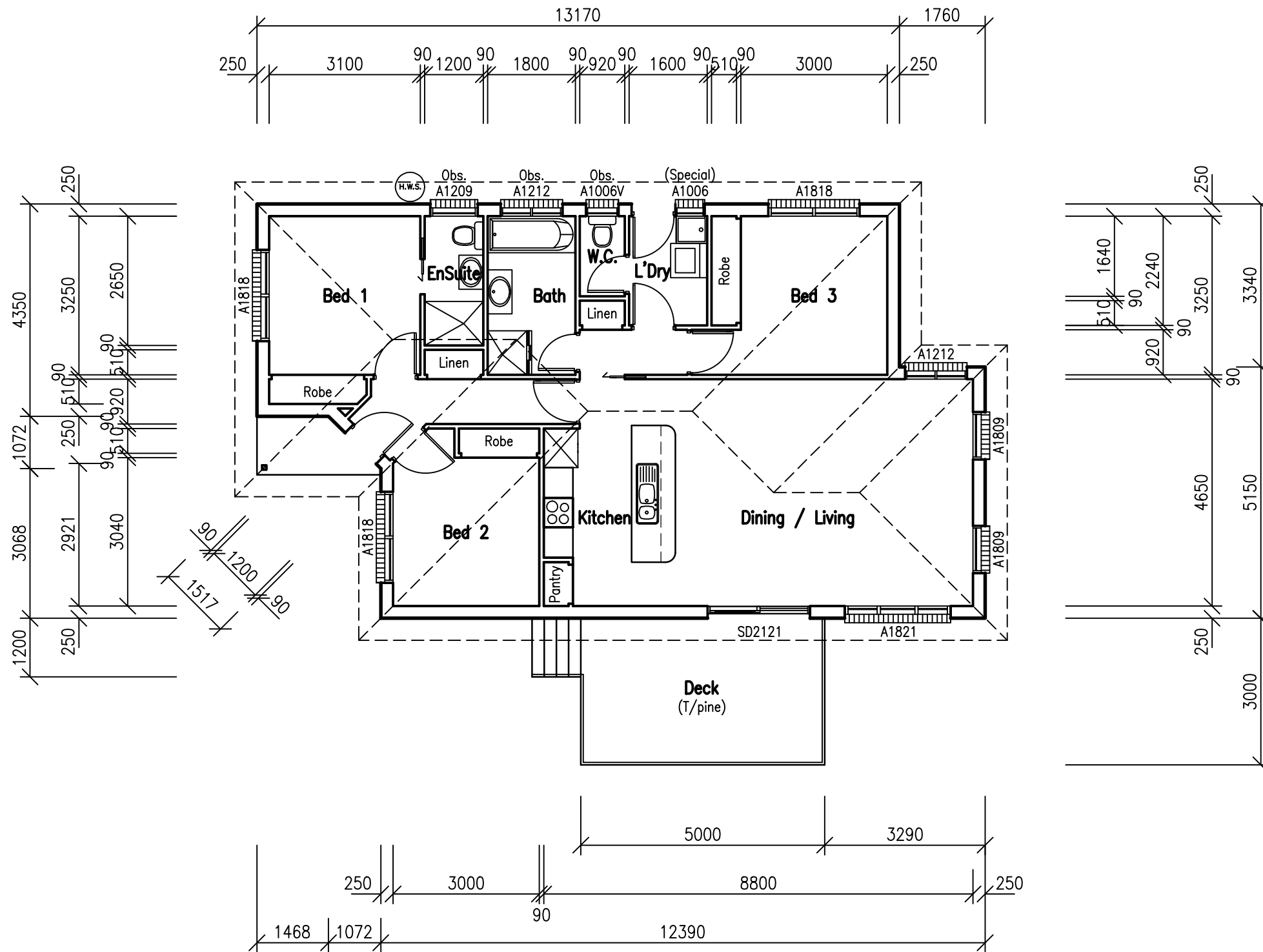
DATE: 10th.October,2020
DRAWN BY: A. Coombe

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Accreditation No: CC104R

D04



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NOT FOR CONSTRUCTION**



FLOOR PLAN Floor Area = 110.94m² (11.94sq.)
SCALE 1:100

Rev.	Date	Details

**PROPOSED BRICK VENEER RESIDENCE for
H WILLIAMS**
27 RIVIERA DRIVE, OLD BEACH

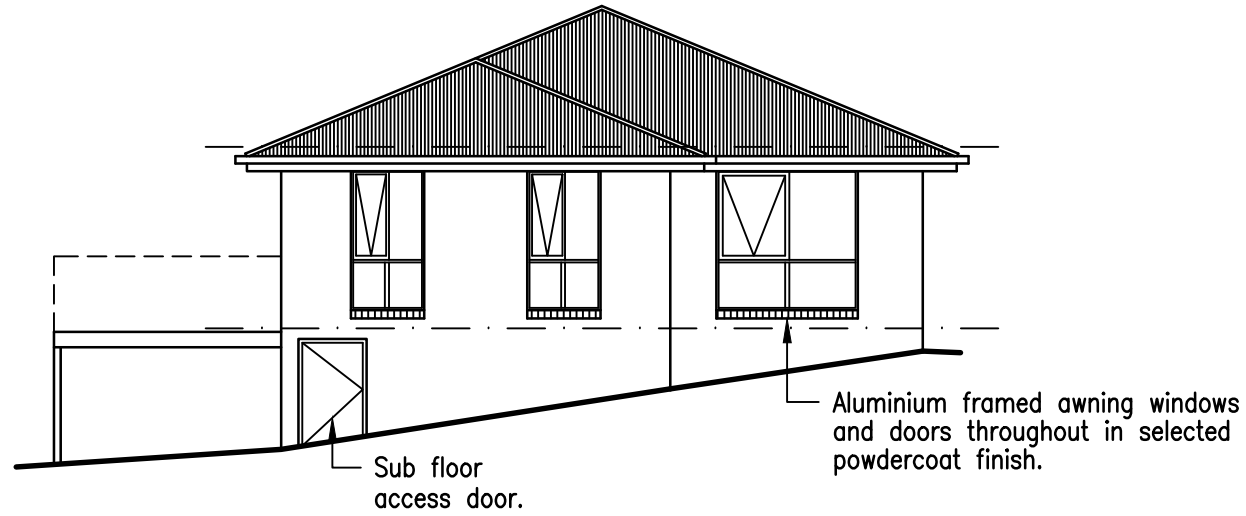
DATE: 10th.October,2020
DRAWN BY: A. Coombe

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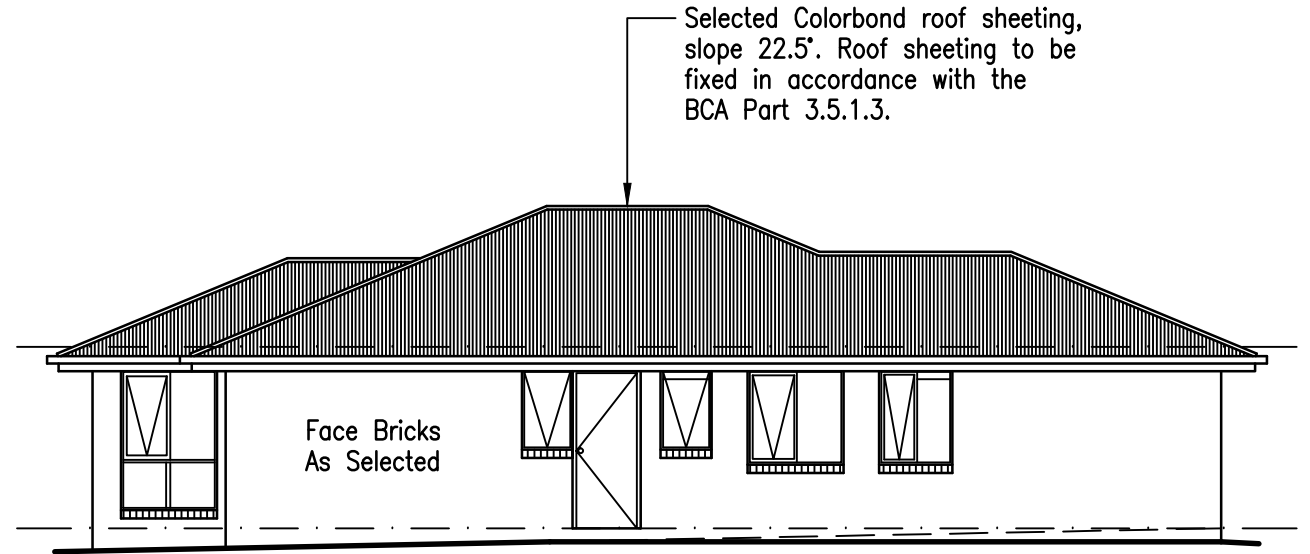
D02

**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**



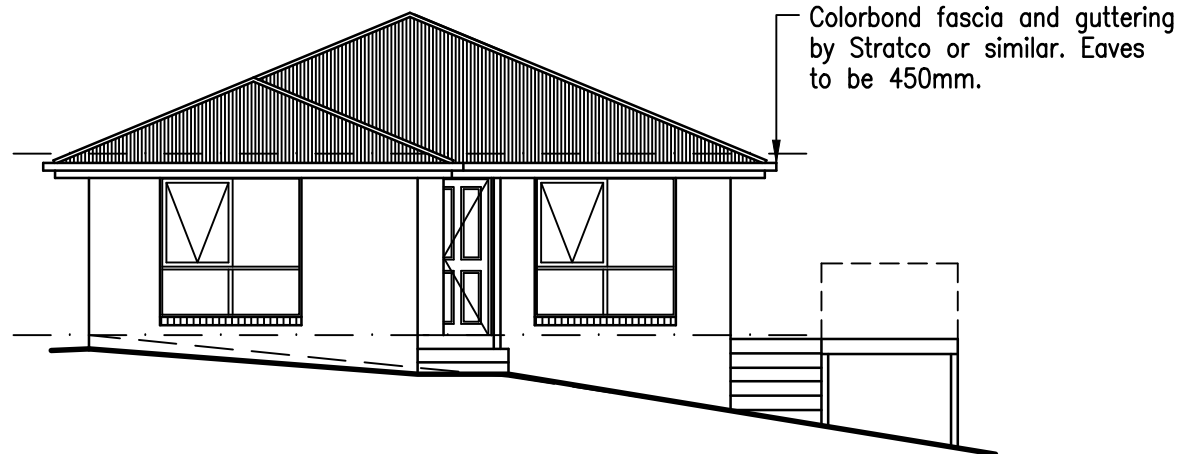
NORTH WEST ELEVATION

SCALE 1:100



SOUTH WEST ELEVATION

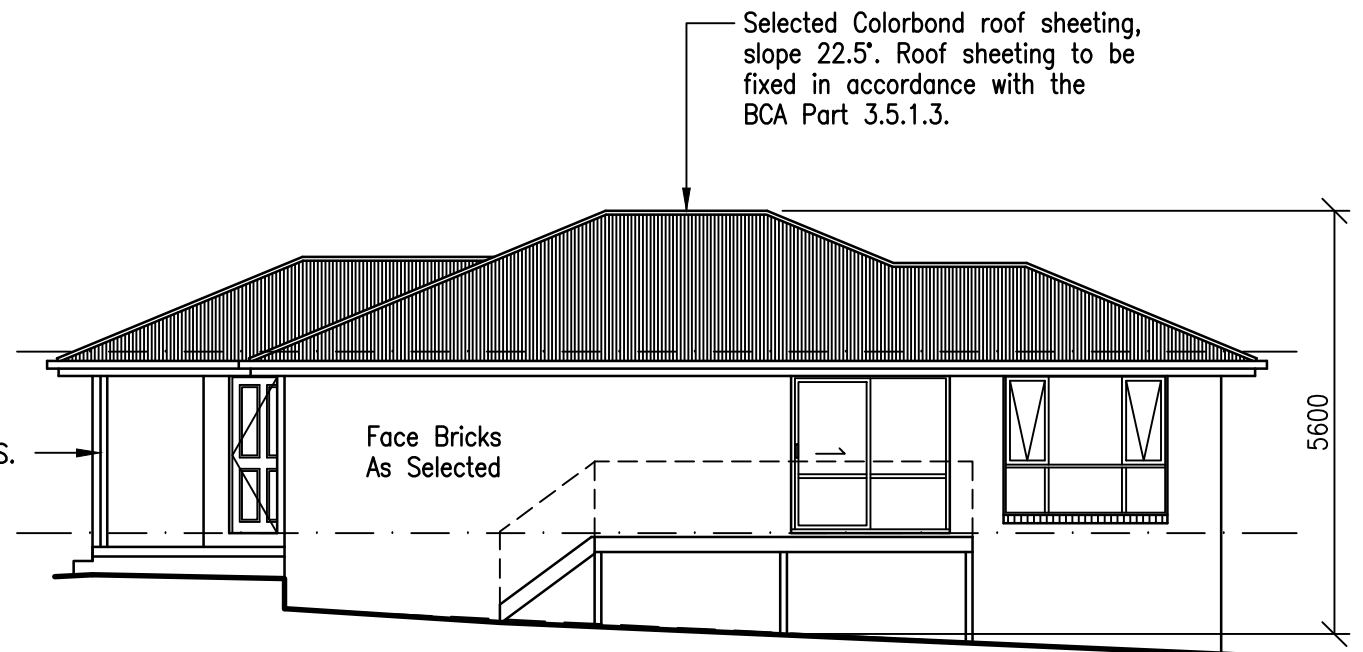
SCALE 1:100



SOUTH EAST ELEVATION

SCALE 1:100

75 x 75 x 3.5 SHS.



NORTH EAST ELEVATION

SCALE 1:100

Rev.	Date	Details

PROPOSED BRICK VENEER RESIDENCE for H WILLIAMS

27 RIVIERA DRIVE, OLD BEACH

DATE: 10th.October,2020
DRAWN BY: A. Coombe

SCALES: 1:100,
Accreditation No: CC104R

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D03

- Notes
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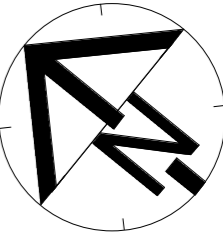
Designer:
 ANOTHER PERSPECTIVE PTY LTD
 PO BOX 21
 NEW TOWN
 LIC. NO. CC2204H (A. Stugnell)
 Ph: (03) 6231 4122
 Fx: (03) 6231 4166
 Email: info@anotherperspective.com.au

Client / Project info
 PROPOSED BRYDEN HOMES DEVELOPMENT
 27 Riviera Drive,
 OLD BEACH

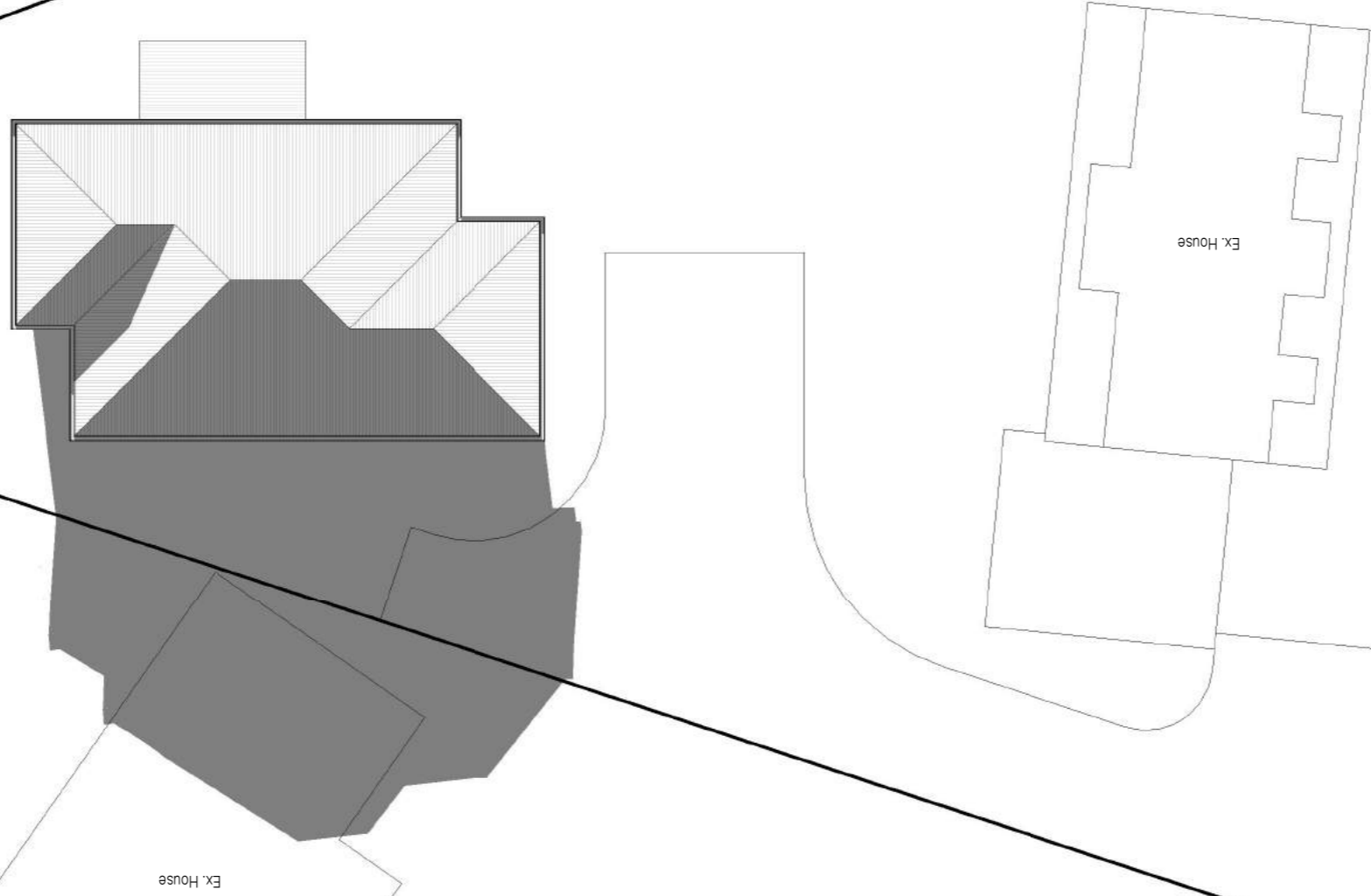


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Date	06 January 2021	Sheet
Scale	1 : 200	S01/S08

SHADOWS 9AM 21 JUNE 2021



RIVIERA DRIVE



NOTES:
 LATTITUDE: -42.76
 LONGITUDE: 147.28
 No allowance has been made for surrounding existing fences or buildings
 LIST data used for neighbouring lots
 LIDAR data used for contours

No. Int. Date

Amendment changes as per cover sheet

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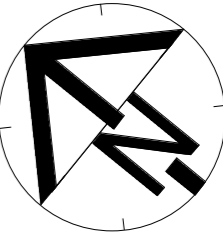
Notes

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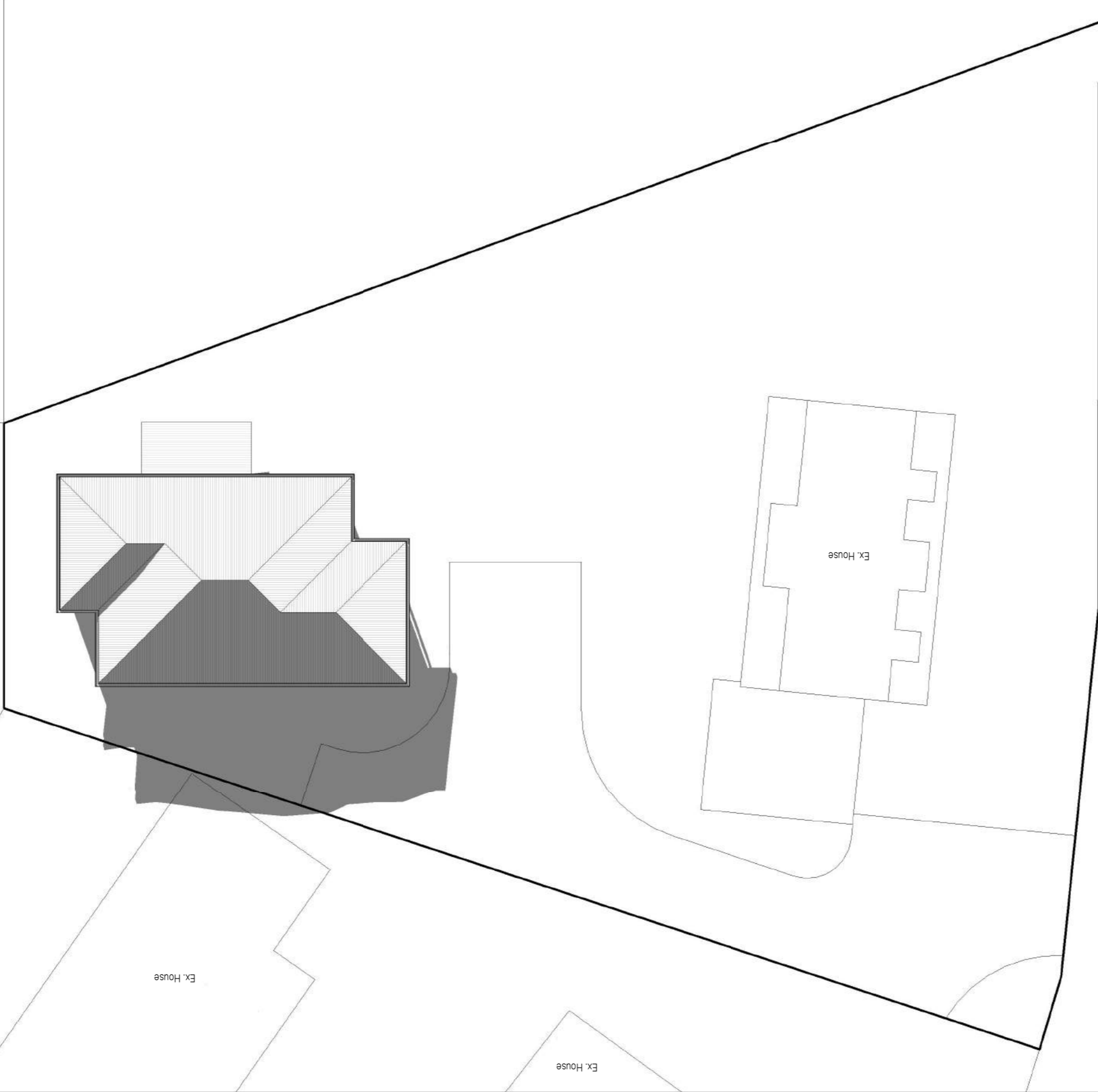
Client / Project info
 PROPOSED BRYDEN HOMES DEVELOPMENT
 27 Riviera Drive,
 OLD BEACH



Drawn	LH	AP2020-1919
Date	06 January 2021	Sheet
Scale	1 : 200	S02/S08



RIVIERA DRIVE



NOTES:
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 LONGITUDE: 147.28
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SHADOWS 10AM 21 JUNE 2021

No. | Date | Int.

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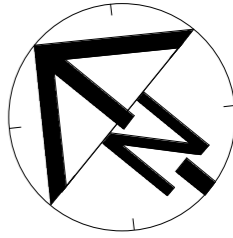
ANOTHER PERSPECTIVE PTY LTD
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Client / Project info

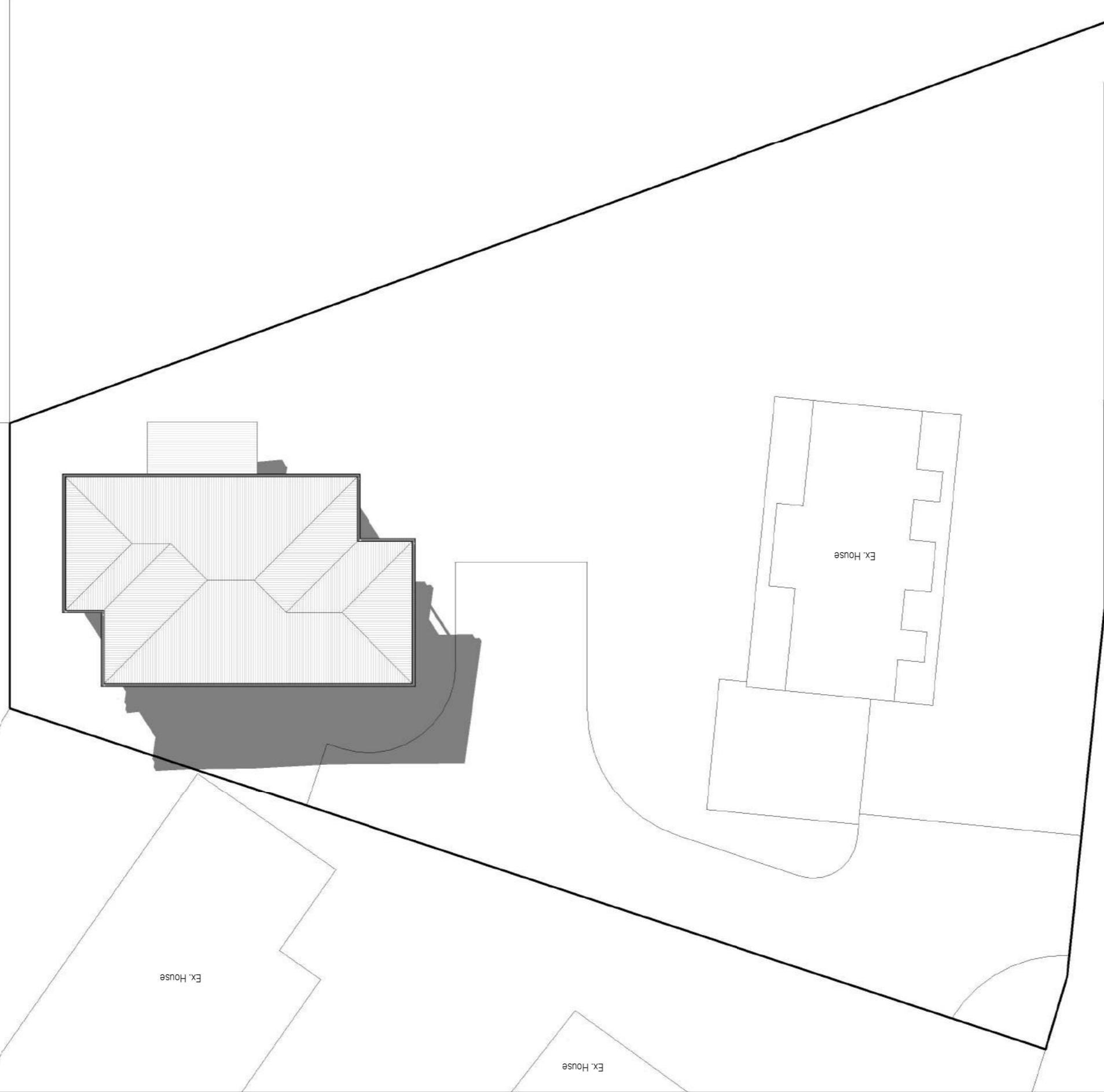
PROPOSED BRYDEN HOMES DEVELOPMENT
 27 Riviera Drive,
 OLD BEACH



Drawn	LH	AP2020-1919
Date	06 January 2021	Sheet
Scale	1 : 200	S04/S08



RIVIERA DRIVE



NOTES:

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SHADOWS 11AM 21 JUNE 2021

No. | Date | Int.

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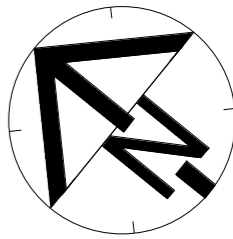
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Client / Project info

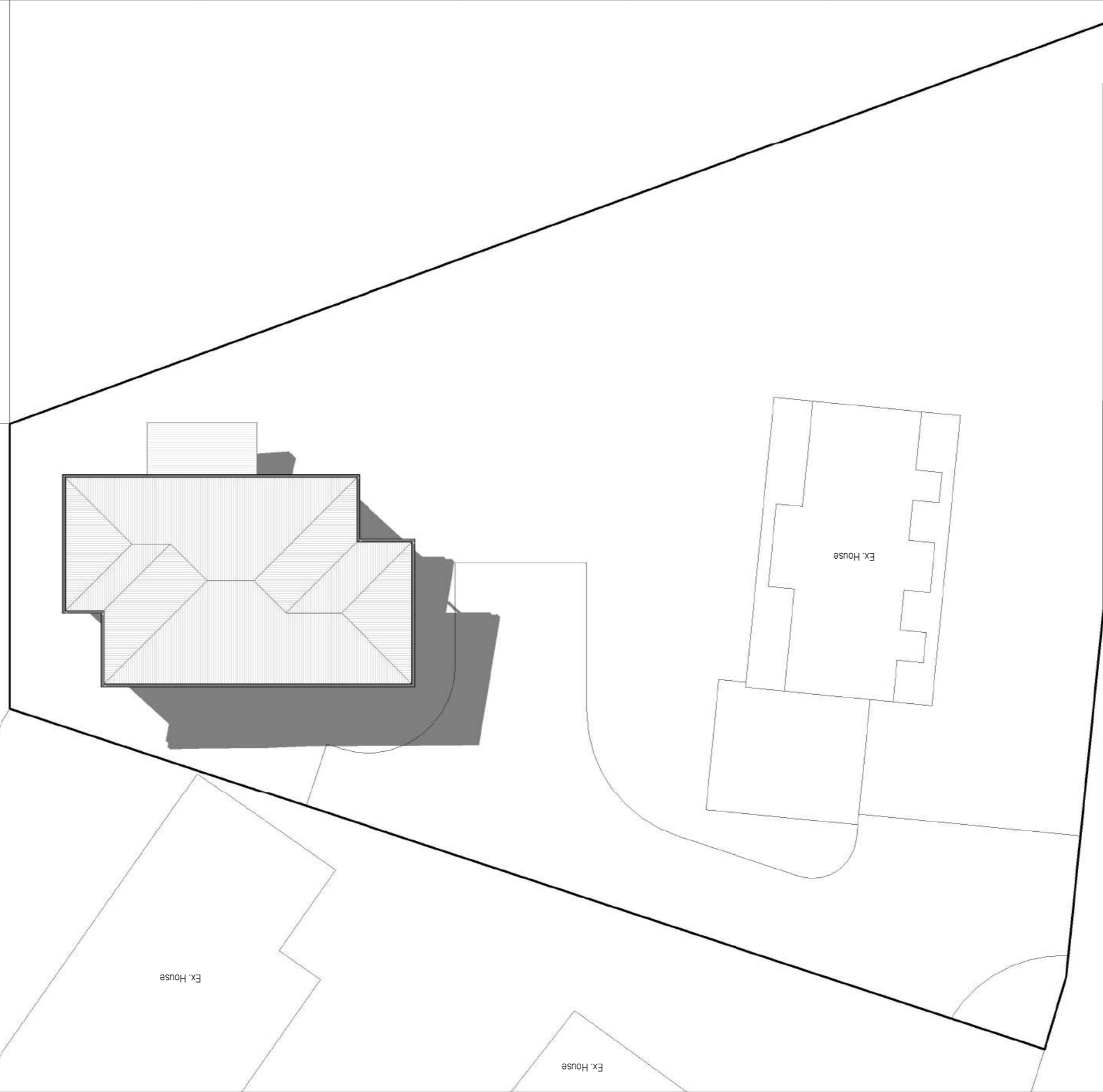
PROPOSED BRYDEN HOMES DEVELOPMENT
 27 Riviera Drive,
 OLD BEACH



Drawn	LH	AP2020-1919
Date	06 January 2021	Sheet
Scale	1 : 200	S05/S08



RIVIERA DRIVE



NOTES:

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SHADOWS 12PM 21 JUNE 2021

No. | Date | Int.

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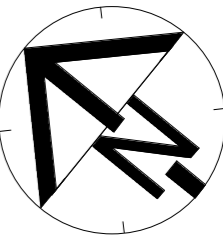
ANOTHER PERSPECTIVE PTY LTD
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 NEW TOWN
 LIC. NO. CC2204H (A. Shugnell)
 Ph: (03) 6231 4122
 Fx: (03) 6231 4166
 Email: info@anotherperspective.com.au

Client / Project info

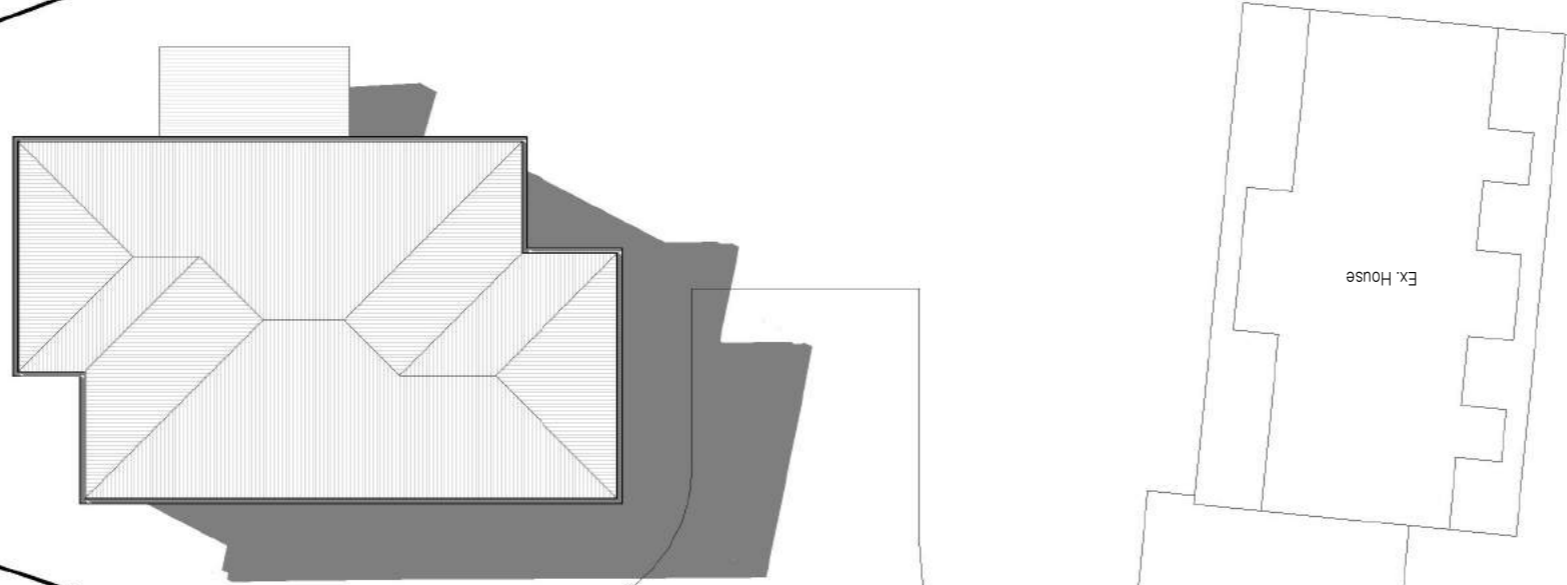
PROPOSED BRYDEN HOMES DEVELOPMENT
 27 Riviera Drive,
 OLD BEACH



Drawn	LH	AP2020-1919
Date	06 January 2021	Sheet
Scale	1 : 200	S06/S08



RIVIERA DRIVE



Ex. House

Ex. House

NOTES:

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 LONGITUDE: 147.28
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 LIDAR data used for contours

SHADOWS 1PM 21 JUNE 2021

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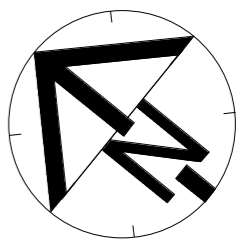
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Client / Project info
 PROPOSED BRYDEN HOMES DEVELOPMENT
 27 Riviera Drive,
 OLD BEACH

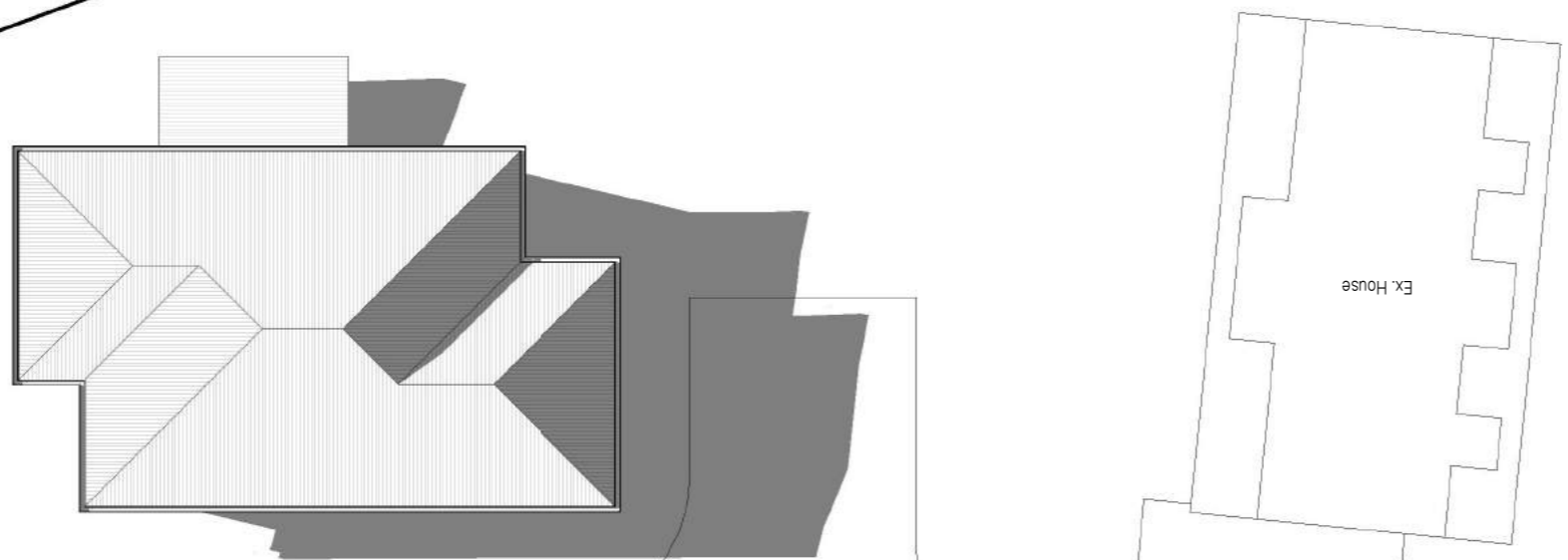


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Date	06 January 2021	Sheet
Scale	1 : 200	S07/S08

SHADOWS 2PM 21 JUNE 2021



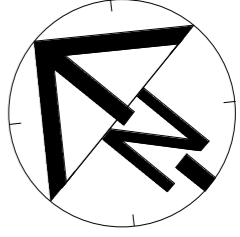
RIVIERA DRIVE



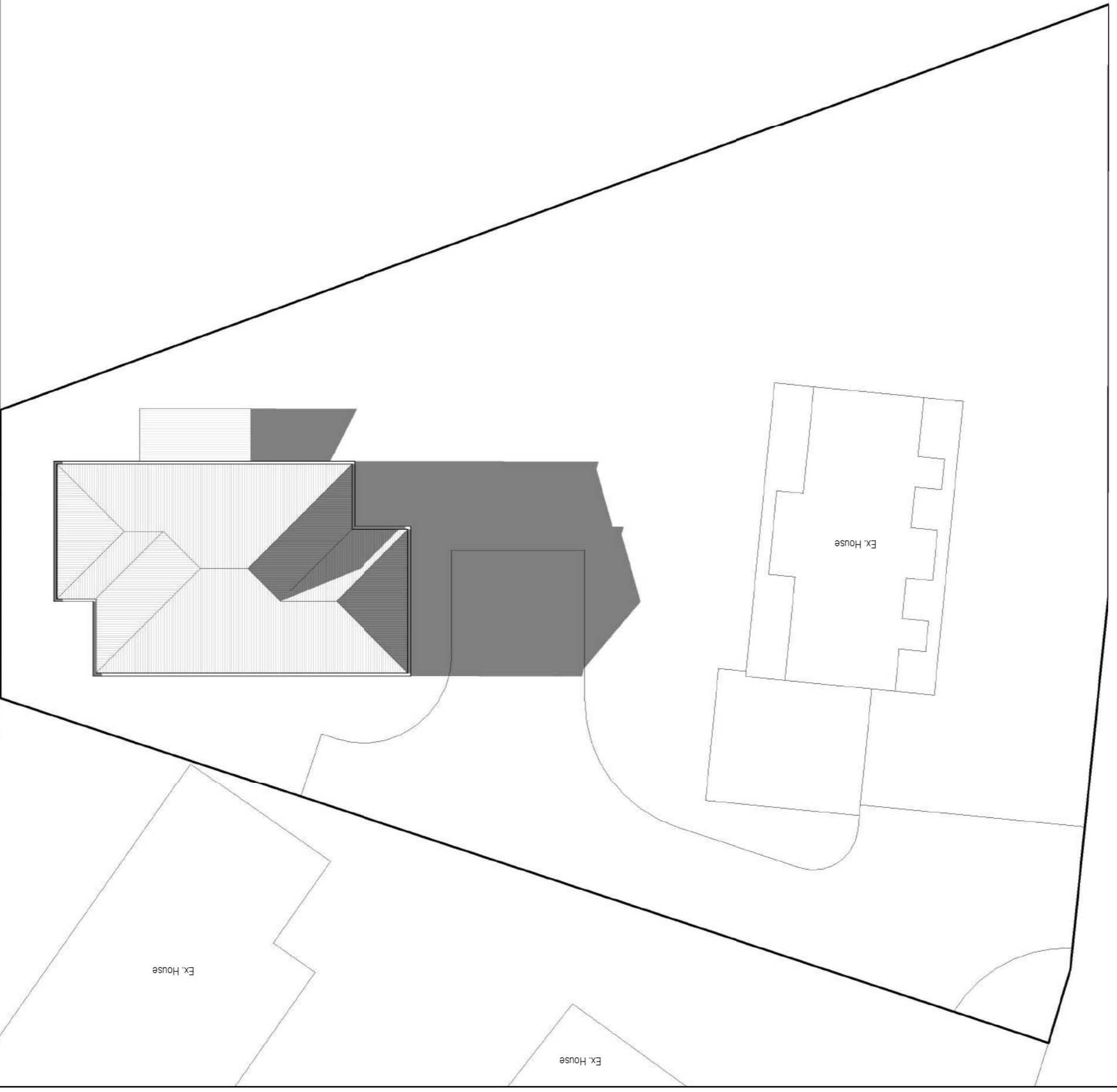
Ex. House

Ex. House

NOTES:
 LATTITUDE: -42.76
 LONGITUDE: 147.28
 No allowance has been made for surrounding existing fences or buildings
 LIST data used for neighbouring lots
 LIDAR data used for contours



RIVIERA DRIVE



NOTES:
LATTITUDE: -42.76
LONGITUDE: 147.28
No allowance has been made for
surrounding existing fences or
buildings
LIST data used for neighbouring lots
LIDAR data used for contours

No.	Date	Int.	Amendment changes as per cover sheet.
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Notes

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Designer:
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NEW TOWN
LIC. NO. CC2204H (A. Stugnell)
Ph: (03) 6231 4122
Fx: (03) 6231 4166
Email: info@anotherperspective.com.au

Client / Project info
PROPOSED BRYDEN HOMES DEVELOPMENT
27 Riviera Drive,
OLD BEACH



Drawn	LH	AP2020-1919
Date	06 January 2021	Sheet
Scale	1 : 200	S08/S08

SHADOWS 3PM 21 JUNE 2021

Submission to Planning Authority Notice

Council Planning Permit No.	DA 2020/416	Council notice date	26/11/2020
TasWater details			
TasWater Reference No.	TWDA 2020/02008-BTN	Date of response	03/12/2020
TasWater Contact	Al Cole	Phone No.	0439605108
Response issued to			
Council name	BRIGHTON COUNCIL		
Contact details	development@brighton.tas.gov.au		
Development details			
Address	27 RIVIERA DR, OLD BEACH	Property ID (PID)	3365152
Description of development	Multiple Dwellings x 2 (1 new + 1 ex)		
Schedule of drawings/documents			
	Prepared by	Drawing/document No.	Revision No.
	Bryden Homes	Location Plan/P01	N/A
Conditions			
<p>Pursuant to the <i>Water and Sewerage Industry Act 2008 (TAS)</i> Section 56P(1) TasWater imposes the following conditions on the permit for this application:</p> <p>CONNECTIONS, METERING & BACKFLOW</p> <ol style="list-style-type: none"> 1. A suitably sized water supply with metered connections and sewerage system and connections to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost. 3. Prior to commencing construction/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. <p>DEVELOPMENT ASSESSMENT FEES</p> <ol style="list-style-type: none"> 4. The applicant or landowner as the case may be, must pay a development assessment fee of \$211.63, to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater. <p>The payment is required within 30 days of the issue of an invoice by TasWater.</p>			
Advice			
General			
<p>For information on TasWater development standards, please visit http://www.taswater.com.au/Development/Development-Standards</p> <p>For application forms please visit http://www.taswater.com.au/Development/Forms</p>			
Service Locations			
Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure			

and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

A copy of the GIS is included in email with this notice and should aid in updating of the documentation. The location of this infrastructure as shown on the GIS is indicative only.

(a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure.

Further information can be obtained from TasWater

(b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies

(c) TasWater will locate residential water stop taps free of charge

(d) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

Metering Vacant Lot

TasWater records indicate this property does not have a water meter installed on the connection to the TasWater water supply.

Prior to obtaining Building/Plumbing Approvals from council, the owner should make application to TasWater for the supply & installation of a water meter. TasWater will proceed to install a water meter on the water connection and forward an invoice for \$266.72.

NOTE: In accordance with the WATER AND SEWERAGE INDUSTRY ACT 2008 - SECT 56ZB A regulated entity may charge a person for the reasonable cost of –

(a) a meter; and

(b) installing a meter.

56W Consent

The plans submitted with the application for the Certificate for Certifiable Work (Building) and/or (Plumbing) will need to show footings of proposed buildings located over or within 2.0m from TasWater pipes and will need to be designed by a suitably qualified person to adequately protect the integrity of TasWater's infrastructure, and to TasWater's satisfaction, be in accordance with AS3500 Part 2.2 Section 3.8 to ensure that no loads are transferred to TasWater's pipes. These plans will need to also include a cross sectional view through the footings which clearly shows;

(a) Existing pipe depth and proposed finished surface levels over the pipe;

(b) The line of influence from the base of the footing must pass below the invert of the pipe and be clear of the pipe trench and;

(c) A note on the plan indicating how the pipe location and depth were ascertained.

Boundary Trap Area

The proposed development is within a boundary trap area and the developer will need to provide a boundary trap that prevents noxious gases or persistent odours back venting into the property's sanitary drain. The boundary trap is to be contained within the property boundaries and the property owner remains responsible for the ownership, operation and maintenance of the boundary trap.

Advice to Planning Authority (Council) and developer on fire coverage

TasWater cannot provide a supply of water for the purposes of firefighting to the lots on the plan.

Advice to the Drainage Authority

The combined system is at capacity in this area. TasWater cannot accept additional flows of stormwater into this area within the combined system over those currently discharged.

The Drainage Authority will be required to either refuse or condition the development to ensure the current service standard of the combined system is not compromised.

TasWater have a small number of townships that are on Boil Water and Do Not Consume Alerts. Please visit <http://www.taswater.com.au/News/Outages---Alerts> for a current list of these areas.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by



Jason Taylor

Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

Discretionary application

january 2021

Development Application Compliance report

Prepared for

Brighton Council

obo

BRETT KENNETH MILLER
KATHLEEN FRANCES MILLER
7 WALLACE STREET
BRIDGEWATER 7030

Prepared by

Michael Eastwood
onshoredesigns@bigpond.com
mobile 0429901003

Proposed Development Summary

The application (DA) is required for the proposed development on the property title CT 199710/1. The property title has two (2) defined zones. The main area is 26.0 Rural Resource with a section of 10.0 General Residential to the NE of the title. Access to the property is from another title (owned by my client CT 31371/1) , a right of way and is zoned 28.0 Utilities and is a permitted access to the allotment.

The proposal is for a change to multiple use to include the existing main use Resource Development Use (hothouses) ,Pleasure Boat Facility use (Hovercraft rides) in the Rural Resource Zone and proposed Tourist Operation (private playgroup, including bumper cars, inflatable jumping castle and inflatable slide). Parking for the proposed will be on the Open Space Zoned Title in which had been the parking area for the previous use .

The existing use (Resource Development) is a permitted use class.

Pleasure Boat Facility is a Discretionary use.

Tourist Operation (private playgroup) is a Discretionary Use

Existing Use: The existing business was a large collective of hot houses (in excess of over 8500m² of glassed hothouses) producing tomatoes in a large commercial enterprise supplying a large majority of the markets in Tasmania. With the existing use there was a constant amount of commercial traffic using the existing access to the property (Wallace Street). When this was in operation there were also trains using the Hobart line. In this time there were in excess of twenty (20) employers working on site and there parking area was where the existing bitumen parking (existing parking) is shown on the site plan however with a reduction in parking spaces for the proposed new Resource Development enterprise as described below.

My client intends to revitalise the produce of commercial food but in a lesser scale and using different techniques. Two areas of the large hot houses will remain (approx. 3000m²). The proposal is to use the existing swimming pool (in disrepair) and create an aquaponics industry capable of growing a large range of sustainable produce for the commercial market.

Use: Pleasure Boat Facility.

The change of use (Multiple Use) of the proposal is to provide hovercraft rides, from the site, to areas of the Derwent River.

The proposal is to provide a building to house and protect the hovercraft, whilst not in use. There is no requirement for a solid floor (slab). The position of 12.5m long*7.5m wide building will be positioned on an area that has previously been used as a building area. (hot houses). Parking for this new use (enterprise) is as shown on the site plan and is in the existing area used for parking for the previous use. This area is the Open Space Zone as shown on the site plan.

Use: Tourist Operation (private playgroups)

The proposal to provide private playgroups (emphasis on children's party's providing bump car rides, inflatable jumping castle and inflatable slide.)

The proposal is to provide a 9.2 wide *20m long roofed building to house the bump car rides with a 12m*2.4m container to place the bumper cars when not in use or need repairs. Jumping castle is inflatable , slide is inflatable. The proposal is to provide pick up and drop off facility using the owners small bus.

There will be an office building (6m*3m) and toilets (6m*3m). Both these building are portable.

See site plans

Introduction

This report forms part of a Development Application for **Multiple Uses** in the **26:0 Rural Resource Zone, 10.0 General Residential Zone** of allotment CT 199710/1 and **Vehicle Parking Use in the Open Space Zone** of allotment CT 175791/1 and relies on the **Performance Criteria** to satisfy part of the relevant planning standards. The report is to be read in conjunction with the design drawings prepared by **Michael Eastwood** that form part of this application.

It is the intent of this report to demonstrate compliance with all relevant scheme standards that form part of the 2015 Brighton Interim Planning Scheme and that are applicable to this application.

Appendices:

Documents

1. Brighton Council Application Form
2. Titles and folio plans
3. Reference to additional reports

Drawings

4. Site plans, floor plans, elevations.

Date	January 2021	
Applicant Details	Michael Eastwood 10 Restdown Drive. Otago onshoredesigns@bigpond.com mobile 0429901003	
Owner Details	BRETT KENNETH MILLER KATHLEEN FRANCES MILLER 7 WALLACE STREET BRIDGEWATER 7030	
Property Details	Cert Title no CT 199710/1 Size: 1.429ha CT 175791/1 (parking)	
Development Address	7 WALLACE STREET BRIDGEWATER 7030	
Development Type	Proposed Class 10 building	
Development Area	Proposed Hovercraft Shed Bumpcar Shed Container Office Toilets Total	 93.75m ² 184m ² 29m ² 18m ² 18m ² 342m²
Zones	Rural Resource/General residential incorporating parking in the Open Space Zone (CT 175791/1)	
Uses	Resource Development Use (hothouses/aquaponics) Pleasure Boat Facility use (Hovercraft rides). Tourist Operation (private playgroup, bump-car, jumping castle and slide)	
Qualification	Resource Development – Permitted (existing) Pleasure Boat Facility - Discretionary Tourist Operation -Discretionary Vehicle parking – Discretionary	
Application	Discretionary Use	

Applicable Planning Scheme Zones and Codes

ZONE	26.0 - Rural Resource 10.0- General Residential 19.0- Open Space
-------------	---

CODES

E5	ROAD AND RAILWAY CODE see TIA
E6	PARKING AND ACCESS CODE see TIA
E7	STORMWATER AND MANAGEMENT CODE see Report
E11 Report	WATERWAYS AND COASTAL PROTECTION CODE see Report
E15	INUNDATION PRONE AREAS CODE see Report
E16	COASTAL EROSION HAZARD CODE see Report
E17	SIGNS CODE

COMPLIANCE WITH PLANNING SCHEME

The proposed development (hovercraft shed, bump car shed and office) are within a defined **Rural Resource Zone**. Proposed parking and toilets are within the defined **Open Space Zone**. Each scheme standard will be addressed in relation to the proposal.

26.0 Rural Resource Zone

26.2 Use Table

Use: Existing Resource Development Use (hot houses)

Use: Pleasure Boat Facility use (Hovercraft rides). Discretionary Use Class

Use: Tourist Operation (private playgroup). Discretionary use Class

26.3 Use Standards

26.3.3 Discretionary Uses

P1

The proposed Pleasure Boat Facility and Tourist Operation Uses are a non-agricultural use but do not conflict with or fetter agricultural use on the site or adjoining land. The ground and area is not suitable for a direct agricultural Use and no direct agricultural use exists. The existing Use is Resource Development and General Residential and this is for the hothouses and accompanying outbuildings that produced tomatoes on a large commercial enterprise and will now be used for aquaponics on a reduced scale. The business had been run down and no longer operated on a sustainable level. Some of the hothouses are to remain and a similar pursuit of sustainable aquaponics (incorporating the existing swimming pool) is to be setup in a new commercial enterprise. There are no agricultural uses on adjoining land.

26.4 Development Standards for Buildings and Works

26.4.1 Building Height

A1

Hovercraft shed and bump car- 4m max height (acceptable)

Toilet and office building 3.6m max height (acceptable)

26.4.2 Setback

A1

The proposed office building is the closest to the frontage from the Rural Resource Zone and >20m. This has been determined by the setback to 31371/1 Utilities allotment owned by my client. Its difficult to determine what is perceived as the frontage in this situation. See site plan

P2

The proposed Hovercraft building has a setback to the high tide mark of approximately 32m. See site plan.

- a) The building setback of the hovercraft building to the high tide mark is on an existing building area and is in a position where the existing hothouses used to be. The topography of the site offer little bearing to the setbacks and it could be that a precedent was applied with the positioning of other buildings on the allotment.
- b) The size and shape of the site provides little incite into the regulated setbacks due to the nature of the site and its boundaries being the waters edge at low tide and the owners property's to the North.
- c) The buildings existing on the site have similar setbacks to that proposed. The existing large shed has a 3m setback to boundary's. The existing remaining hothouses have a setback of 2m to the existing neighbours residential property and the existing small cabin has a setback to the hightide mark of around 9m. What im determining is the setbacks required are within the setbacks existing.
- d) The proposed hovercraft shed will be are alternate Evening Haze , Cove & mangrove(all low reflective colour-bond colours) . Camouflage effect. . A light reflectance of <40%
- e) The proposed is not on a skyline or prominent ridgeline.
- f) There is no impact to native vegetation as the proposed is to be placed on ground that has previously been developed (hot houses) building area.

A3 NA Not a sensitive use.

A4 NA

26.4.3 Design

A1

- c) The proposed is located in an area not requiring the clearing of native vegetation and not on a skyline or ridgeline.

A2

The proposed is using colours with a light reflectance value not greater than 40 percent. The colours of the hovercraft shed and bump car building are alternate Evening Haze , Cove & mangrove(all low reflective colour-bond colours) . Camouflage effect.

A3

NA. Flat land. No excavation required

26.4.4 Plantation Forestry

A1

NA.

10.0 General Residential Zone

10.2 Use Table

The existing Class 10 building is an existing building as part of the existing Resource Development use. No change to this zoning

The proposed development vehicle parking is within the defined **Open Space Zone**. Each scheme standard will be addressed in relation to the proposal.

19.0 Open Space Zone

19.2 Use Table

Use: Vehicle parking – Discretionary Use

19.3 Use Standards

19.3.1 Hours of Operation

A1

The Open Space Zone is within 50m of a Residential Zone

- a) Opening hours will be between 8.00 am to 6.00 pm Mondays to Saturdays inclusive;
- b) Other hours will be 10.00 am to 4.00 pm Sundays and Public Holidays; except for [office](#) and administrative tasks.

19.3.2 Noise

NA. Noise is in relation to vehicle parking. There will be no noise from vehicles above the limits in A1 and no use of amplified loud speakers as described in A2

19.3.3 External Lighting

A1

There will be minimal external lighting maybe all that is required for a security reason.

- a) Only security lighting to carpark
- b) Security lighting will be baffled to the residential zoned property and will only provide lighting to access areas of the slide and bump car and within the

hovercraft building to deter persons trespassing on site for security and insurance purposes. Although the area I mentioned above (b) is not in entirely in the Open Space Zone it's a reference to all external security lighting.

19.3.4 Commercial Vehicle Movements

A1

Commercial vehicle movements, (including loading and unloading and garbage removal), to or from a site within 50 m of a residential zone will be within the hours of:

- (a) 7.00 am to 5.00 pm Mondays to Fridays inclusive;
- (b) 9.00 am to 12 noon Saturdays;
- (c) Nil Sundays and Public Holidays.

There is no direct commercial vehicle requirement with this application

19.3.5 Discretionary Use

P1

I believe the Discretionary use (Vehicle Parking) can argue the fact that the parking on the Open Space Zoned land is primarily for parking for the use on the Rural Resource Zone proposed development. The remaining area of the Open Space Zoned property can be used for passive recreation and also Natural and cultural values management use due to the significance of the area, close to the shoreline, having aboriginal significance.

19.4 Development Standards for Buildings and Works

19.4.1 Building Height

NA parking only

19.4.2 Setback

NA. No building on Zone

19.4.3 Landscaping

A1 landscaping will be provided close to the frontage of the site to the residential zoned part of the allotment mainly to provide screening to the entrance.

A2 As above

19.4.4 Fencing

NA. The only fencing required, on the boundary of the Open Space Zoned land to the Rural Resource Zoned land (main proposed development) may be the requirement to provide security fencing

RELEVANT CODE

E5 Road and Railway Assets Code

See Traffic Impact Assessment by Midson Traffic.

RELEVANT CODE

E6 Car Parking and Access Code.

To be read in conjunction to Traffic Impact Assessment by Midson Traffic.

E6.6 Use Standards

E6.6.1 Car Parking Numbers

See TIA

E6.6.2 Number of Accessible Car Parking Spaces for People with a Disability

A1

- a) The disabled parking spaces required for this application and use is one (1) space to satisfy the relevant provisions of the NCC
- b) The space is incorporated into the overall car park design.
- c) The proposed is located as close as practical to the building entrance

E6.6.3 Number of Motorcycle Parking Spaces

A1 NA but one (1) is provided

E6.6.4 Number of Bicycle Parking Spaces

A1 NA

6.7 Development Standards

E6.7.1 Number of Vehicular Accesses

A1 Existing access

E6.7.2 Design of Vehicular Accesses

A1 NA

A2 (a)

Non-commercial vehicle access; the location, sight distance, width and gradient of an access will be designed and constructed to comply with section 3 – “Access Facilities to Off-street Parking Areas and Queuing Areas” of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking

Parking angle 90 degrees

Parking space size 2400*5400 except for disabled 4800 wide

Parking space for motorcycles 1200*2500

Two way roadway 5.5m wide

Level grade

Access driveway width 6m

Control point at entrance for queuing 2 cars

Parking turning radius is adequate and can be shown

E6.7.3 Vehicular Passing Areas Along an Access

See TIA

E6.7.4 On-Site Turning

A1

On-site turning is provided to enable vehicles to exit the site in a forward direction. See site plan.

E6.7.5 Layout of Parking Areas

A1

The layout of car parking spaces, access aisles, circulation roadways and ramps are designed and constructed to comply with section 2 “Design of Parking Modules, Circulation Roadways and Ramps” of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and have sufficient headroom to comply with clause 5.3 “Headroom” of the same Standard. See site plan for access aisles ect. Headroom is sufficient for vehicles

E6.7.6 Surface Treatment of Parking Areas

A1

The parking spaces and vehicle circulation roadways will not unreasonably detract from the amenity of users, adjoining occupiers or the quality of the environment through dust or mud generation or sediment transport, having regard to all of the following:

- (a) The existing parking spaces for the original business were bitumen sealed. The proposed car parking area for the new use will require the existing bitumen remains to be re-sealed
 The driveway surface to the back of the existing shed will be covered and compacted with decomposed granite that provides a relatively stable dust free surface that requires little maintenance.
- (b) The characteristics of this use is in a natural environment and I believe is adequate for this type of use and area.
- (c) The measures to mitigate mud or dust generation or sediment transport is to keep a watch on the condition of the decomposed granite driveway and parking area and provide maintenance when required. This would be the use of moisture control and regular compaction checks.

Note: The owners cannot afford to totally seal the driveway and at the moment the only part un sealed is the driveway to the rear of the existing shed. If the proposed is a viable venture it would be the intent of the owners to eventually seal the driveway although I do find the decomposed granite would be an excellent surface if well maintained.

E6.7.7 Lighting of Parking Areas

A1 NA. The requirement will not require use out of daylight hours

E6.7.8 Landscaping of Parking Areas

P1

The position of the parking spaces is in an area that is screened from the streetscape. The driveway access to the parking area is screened by a fence and espalier fruiting trees

- a) There will be no visual impact on the streetscape due to the position of the proposed parking area
- b) The existing fencing and espalier fruiting trees soften the boundary of the car parking area and reduce the amenity impact on the neighbouring property.
- c) I believe this does not apply to this onsite parking area that can be immediately viewed directly from the owners dwelling.

E6.7.9 Design of Motorcycle Parking Areas

A1

- (a) The proposed motorcycling parking area is located, designed and constructed to comply with section 2.4.7 "Provision for Motorcycles" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking. Size 1.2m * 2.4m See site plan
- (b) The Motorcycling Parking is located within 30 m of the main entrance to the building. See site plan

E6.7.10 Design of Bicycle Parking Facilities

NA Not required in this use however the owner may provide some safe bicycle parking as the facility is to be used by children who may access the proposed by cycling and require safe parking/storage of there bicycles.

E6.7.11 Bicycle End of Trip Facilities

NA

E6.7.12 Siting of Car Parking

NA Not in any of those Zones noted.

E6.7.13 Facilities for Commercial Vehicles

NA No requirement for commercial vehicles other than that existing. See TIA

E6.7.14 Access to a Road

The access to the property is the existing access. see site and site plan

RELEVANT CODE

See Engineers report

E7.0 Stormwater Management Code

E7.7.1 Stormwater Drainage and Disposal

A1 **There are no new impervious surfaces in this application.**

The existing/new carparking area has some existing bitumen.

A2 The carparking areas are all drained as existing.

A3

- a) Existing stormwater system consisting of ag drains to pit and existing line to the river. See site plan
- a) Stormwater runoff is no greater than that pre-existing.

A4

Impossible to put a major stormwater drainage system due to location and topographic reasons

RELEVANT CODES

- E11 WATERWAYS AND COASTAL PROTECTION CODE
- E15 INUNDATION PRONE AREAS CODE
- E16 COASTAL EROSION HAZARD CODE

I believe all the above Codes have been addressed in the Coastal Vulnerability Assessment from GES Geo-Environmental Solutions

RELEVANT CODE

E17.0 Signs Code

NA. Only using signs that are exempt.

Internal sign that is associated with the business name and not illuminated.

Transom sign that is not illuminated

Conclusion

The owners have decided to continue developing the existing use as a aquaponics/hydroponics business providing produce for the local market but in a lot smaller scale than what was existing.

The other uses are the hovercraft rides through to New Norfolk. (pleasure boat facility). The requirement for this is a new building to give cover protection to the hovercraft. A removable office is to be included and a removable toilet block to service the patrons.

The children's party's (bumper cars and jumping castle/slide) will cater for small groups and will be a pick up and drop off service. Private bus parking provided.

Signed:



Michael Eastwood

Onshore Designs

PROJECT INFORMATION

BUILDING DESIGNER: MICHAEL EASTWOOD
 ACCREDITATION No: CC 1066 S
 LAND TITLE REFERENCE NUMBERS: 31371/1, 175791/1, 199710/1 (main title)
 FLOOR AREA: 90 m² (hovercraft building) 184 m² (bumber shed)
 DECK FLOOR AREA: NA
 DESIGN WIND SPEED: N3
 SOIL CLASSIFICATION: M
 CLIMATE ZONE: 7
 BUSHFIRE-PRONE BAL RATING: NA
 ALPINE AREA: NOT APPLICABLE
 CORROSION ENVIRONMENT: HIGH
 FLOODING: NO
 LANDSLIP: NO
 DISPERSIVE SOILS: UNKNOWN
 SALINE SOILS: UNKNOWN
 SAND DUNES: NA
 MINE SUBSIDENCE: NO
 LANDFILL: NA
 DATUM LEVEL AT KERB: NA
 GROUND LEVEL: RL
 FINISHED FLOOR LEVEL: RL
 OVERFLOW RELIEF GULLY LEVEL: RL

Proposed Multiple use Existing Resource Development (aquaponics) Pleasure Boat Facility (hovercraft rides), Tourist Operation (private party,s)

7 Wallace Street
 Bridgewater TAS
 7030

PLANNING APPLICATION

AMMENDED 18/01/21

Michael Eastwood

Onshore Design
 buiding designSTUDIO
www.buildingdesignstudio.com.au

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 mail/ 10 Restdown Drive, Otago, 7017
 0429901003
onshoredesigns@bigpond.com

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A2	Site Plan 1 to 400


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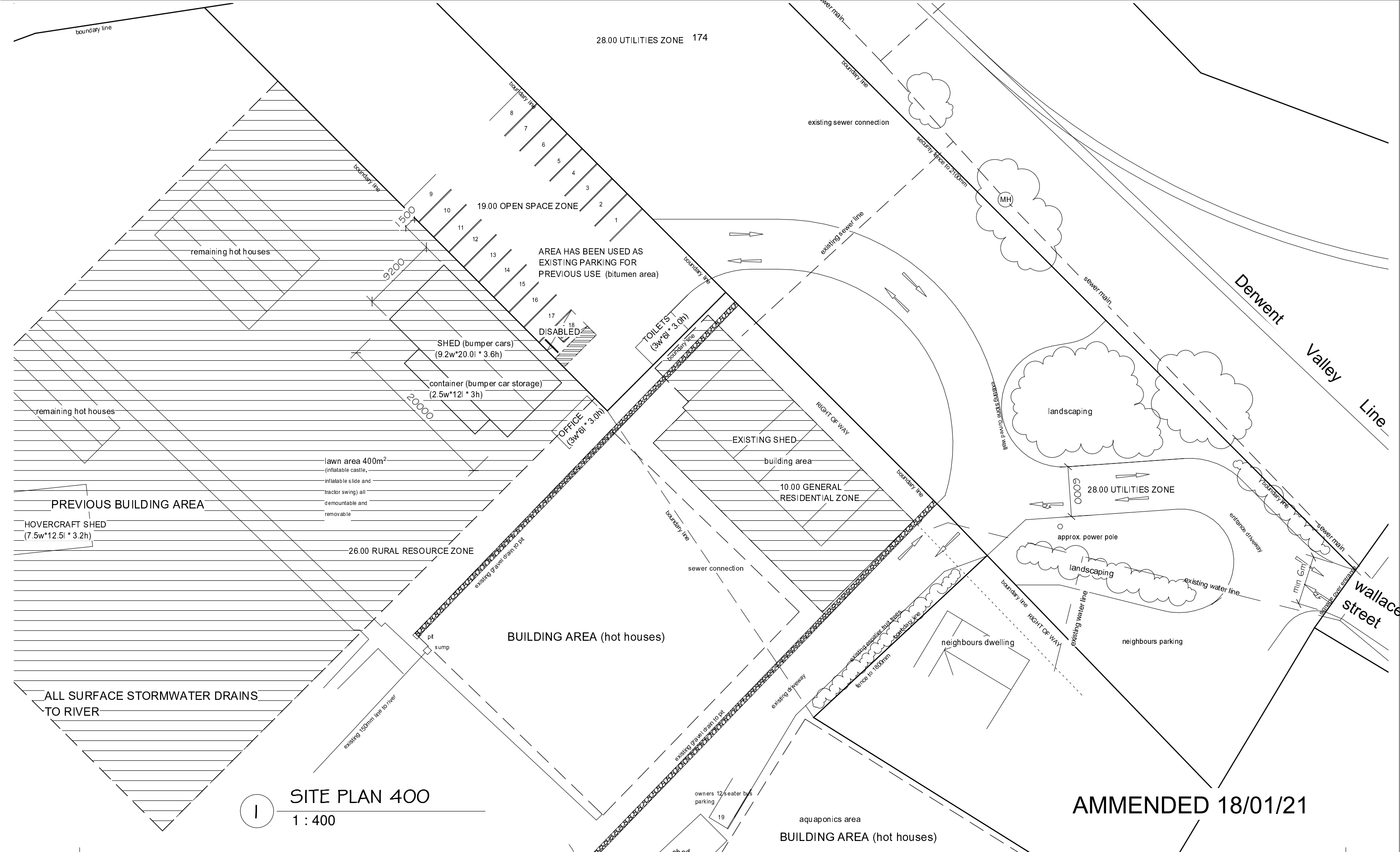
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 7 Wallace St
 Bridgewater 7030
 for Brett and Kathleen Miller

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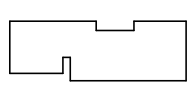
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18/01/21
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 Michael Eastwood
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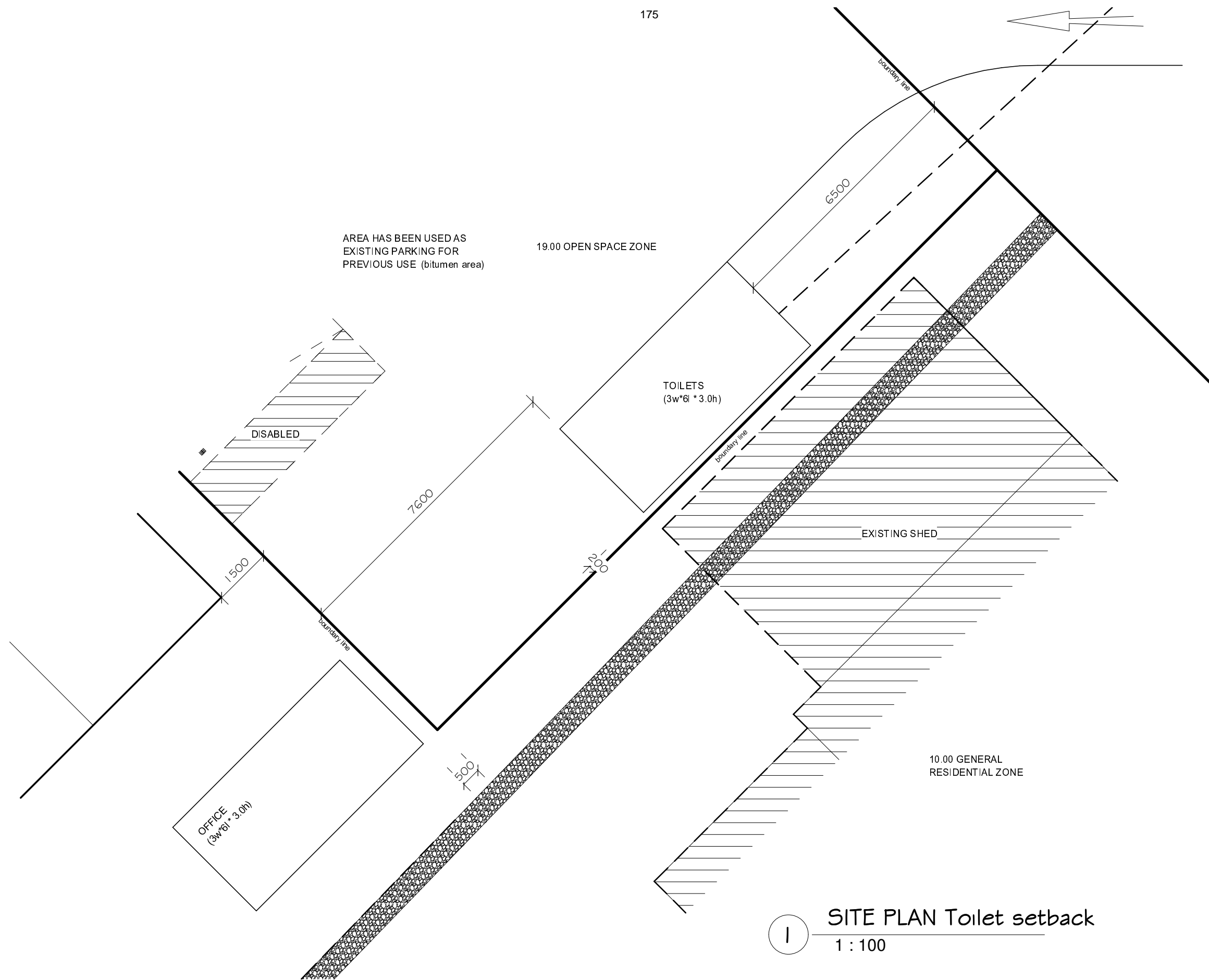
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SITE PLAN 400
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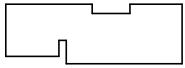
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			 Printed Date 20/01/2021 9:33:11 AM			Proposed Development at 7 Wallace St Bridgewater 7030 for Brett and Kathleen Miller	Site Plan 1 to 400	18/01/21 Drawn By: Michael Eastwood Accreditation No. CC 1066 S Scale: 1 : 400	Sheet No: A2



1 SITE PLAN Toilet setback
1 : 100

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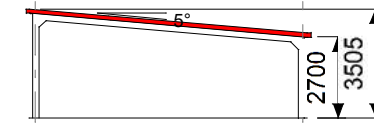
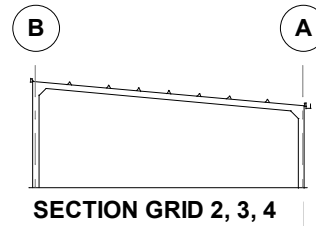
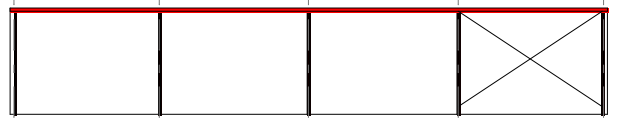
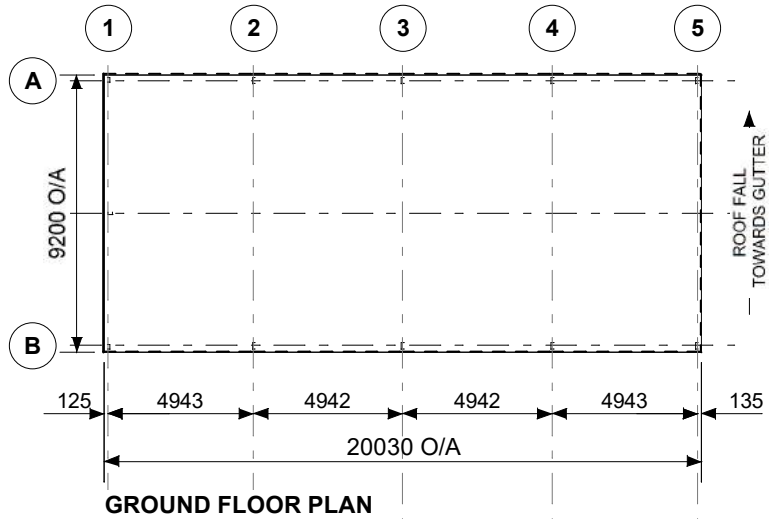
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 for Brett and Kathleen Miller

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CORNERS	-	CB	AA
BARGE	-	CB	AA
GUTTER	SQUARELINE	CB	AA

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ACCESSORY SCHEDULE & LEGEND

QTY	MARK	DESCRIPTION

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IMPORTANCE LEVEL	REGION	TERRAIN	Ms
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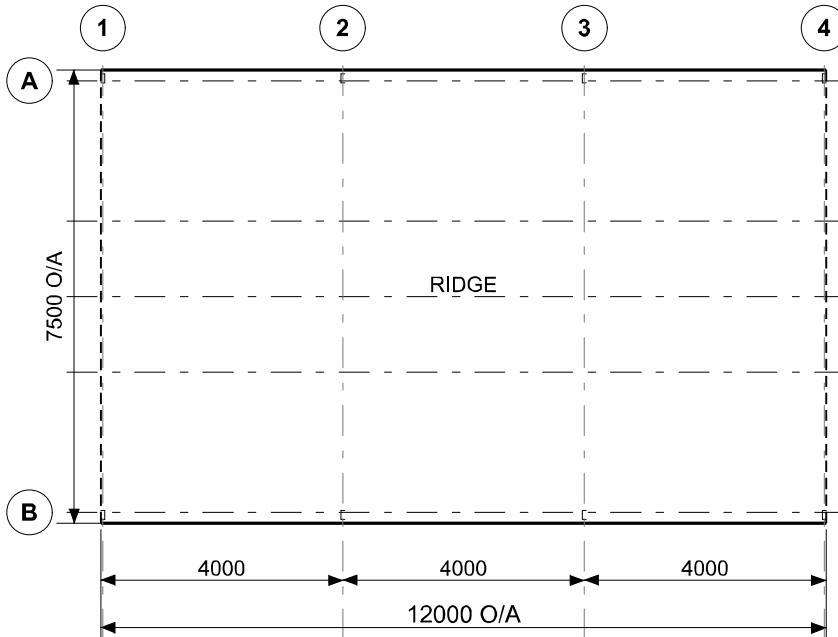
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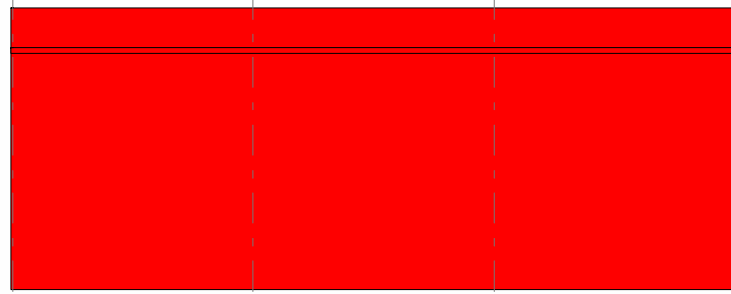
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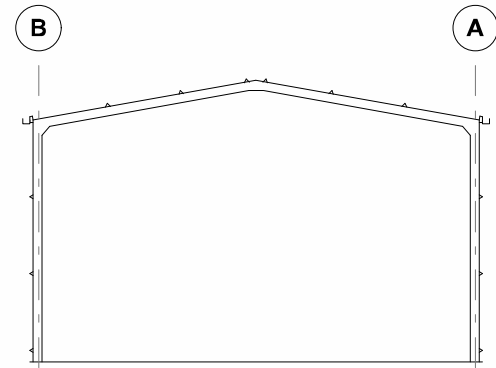
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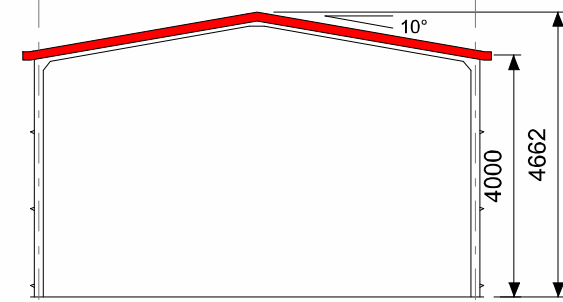
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ELEVATION GRID 4

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BARGE	-	CB	AA
GUTTER	HI-QUAD	CB	AA

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WIND DESIGN			
IMPORTANCE LEVEL	REGION	TERRAIN	Ms
2	A	2.5	1.0

CLIENT
Brett Miller

SITE
TBA
BRIDGEWATER TAS 7030

BUILDING
SUNDOWN DELUXE
7500 SPAN x 4000 EAVE x 12000 LONG

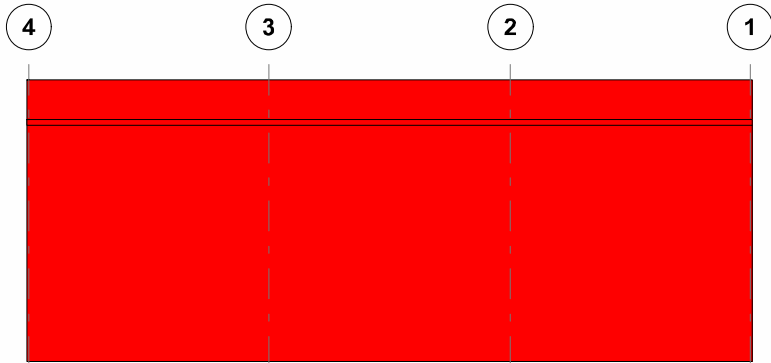
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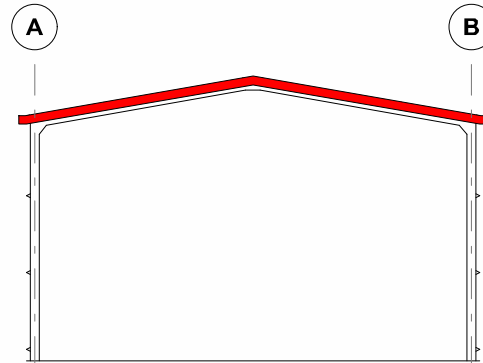


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GEO-ENVIRONMENTAL
SOLUTIONS

COASTAL VULNERABILITY ASSESSMENT

7 Wallace Street, Bridgewater

CLIENT

Brett Miller

April 2020



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Executive Summary

Geo-Environmental Solutions Pty Ltd (GES) were contracted by Brett Miller to prepare a coastal erosion and inundation hazard assessment for a property at Bridgewater. The project area consists of a single cadastral title (located at 7 Wallace Street (The Site)). An application to conduct construction works has triggered the assessment in accordance with the Interim Planning Scheme (IPS) 2015.

A ‘first pass assessment’ has been conducted for the site area by Sharples (2008) which involved an assessment of coastline geomorphology and vulnerability to inundation and erosion processes. The need for a second pass assessment is based on a requirement to assess site inundation potential and erosion hazards. *A detailed coastal inundation and erosion hazard assessment has been conducted for the site.*

The site has an area of approximately 1.62 Ha and appears to have its coastal boundary at the edge of the Derwent River (the low water mark). The elevation of the site ranges from 0 to 2.7 m AHD. Photo 1 shows the edge of the riverbank is lined with reeds, with a small area exposing underlying cobbles which lines the edge of the shoreline, providing some shoreline armouring.

A soil assessment was conducted for foundation design by GES. A push probe borehole was completed at various locations and identified dolerite rock at a depth of between 0.8 and 1.6 m depth.

The following can be concluded from the inundation assessment:

- The Tasmanian Building Regulations do not stipulate design finished floor levels for non-habitable buildings. In accordance with the Directors Determination (2020), the finished floor level of any proposed habitable space should be at 2.5 m AHD, which is compiled from site-specific design levels within the planning scheme inundation prone areas code Table 15.1 reference for Bridgewater
- GES have identified that largest 1% AEP wave condition at the site is generated from a westerly wind wave with an offshore significant height of 0.9 m at 1.4 m water depth and a nearshore and largely attenuated significant wave height of 0.9 m near the site;
- Wave run up inundation levels for 2070 are calculated to be at 2.2 m AHD based on calculated 1% AEP wind waves from the west (the largest wave runup at the site)
- It is recommended that the finished floor levels for buildings established at the site are at or above 2.2 m AHD. On this basis, there is a low risk that the floors will be inundated by 2070 based on a 1% AEP event.

The following can be concluded from the coastal erosion assessment:

- It is established that up to 25 m of coastline recession may be expected by 2070. .
- As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.

The following are recommended from the assessment:

- Given the extensive coastal erosion hazard overlay, the only possible way to subdivide the property is for creation of a lot for the purposes of public open space, public reserve or utilities;
- As indicated in section 4.6.2, there is a residential building exclusion zone which applies to the portion of the lot within the IPAC High hazard overlay. This portion may be allocated to public open space for the purpose of subdividing the lot. Allocation may not have to be limited to waterfront areas.
- As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.
- For proposed buildings within the low inundation prone code area, it is recommended that finished floor levels are constructed at or above 2.2 m AHD to achieve a tolerable risk.
- Infilling may be conducted in waterways and coastal protection area, provided they are not classified as a wetland.
- A soil and water management plan is required if there is proposed building works at the site;
- Any works are to be undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.

List of Abbreviations

AHD(83)	Australian Height Datum
AEP	Annual Exceedance Probability
CEM	Coastal Engineering Model
CEHC	Coastal Erosion Hazards Code
DCP	Dynamic Cone Penetrometer
DEM	Digital Elevation Model
DPAC	Department of Premier and Cabinet
ERMP	Erosion Risk Management plan
GES	Geo-Environmental Solutions Pty Ltd
GIS	Geographical Information System
IPAC	Inundation Prone Areas Code
IPCC	Intergovernmental Panel on Climate Change
IPS	Interim Planning Scheme
LiDAR	Light Detection And Ranging
LIST	Land and Information System, Tasmania
MRT	Mineral Resources Tasmania
NCCOE	National Committee on Coastal and Ocean Engineering
SB	Soil Bore
SPM	Shoreline Protection Manual
SSP	Surf Similarity Parameter
SWAN	Simulating Waves Nearshore
TAFI	Tasmanian Aquaculture and Fisheries Institute
WRL	Water Research Laboratory (University of New South Wales)

1 Introduction

Geo-Environmental Solutions Pty Ltd (GES) were contracted by Brett Miller to prepare a coastal erosion and inundation hazard assessment for a property at Bridgewater. The project area consists of a single cadastral title (located at 7 Wallace Street (The Site)). An application to conduct construction works has triggered the assessment in accordance with the Interim Planning Scheme (IPS) 2015.

A ‘first pass assessment’ has been conducted for the site area by Sharples (2008) which involved an assessment of coastline geomorphology and vulnerability to inundation and erosion processes. The need for a second pass assessment is based on a requirement to assess site inundation potential and erosion hazards. *A detailed coastal inundation and erosion hazard assessment has been conducted for the site.*

2 Objectives

The objective of the site investigation is to:

- Identify which codes need to be addressed in terms of coastal vulnerability and identify the relevant performance criteria relevant to the project which need addressing;
- Conduct a literature review of all geological, geomorphologic, hydrodynamic information and any ‘First or Second Pass Assessments’ which are relevant to the site;
- Conduct a detailed inundation and erosion hazard assessment;
- Conduct a site risk assessment for the proposed development ensuring relevant performance criteria are addressed; and
- Where applicable, provide recommendations on methods and design approach to reduce inundation impact.

3 Site Details

3.1 Project Area Land Title

The land studied in this report is defined by the following title reference:

- CT 199710/1 (7 Wallace Street);

This parcel of land is referred to as the ‘Site’ and/or the ‘Project Area’ in this report.

3.2 Project Area Regional Coastal Setting

The Project Area is located between Mawson Point and Bridgewater Causeway (Figure 1). The site is subject to the following hydraulic influences:

- Wind fetch across the River Derwent from the west, southwest and the south and the following:
 - Wave setup; and
 - Wave run-up.
- Sea level rise; and
- Tides and associated water currents.

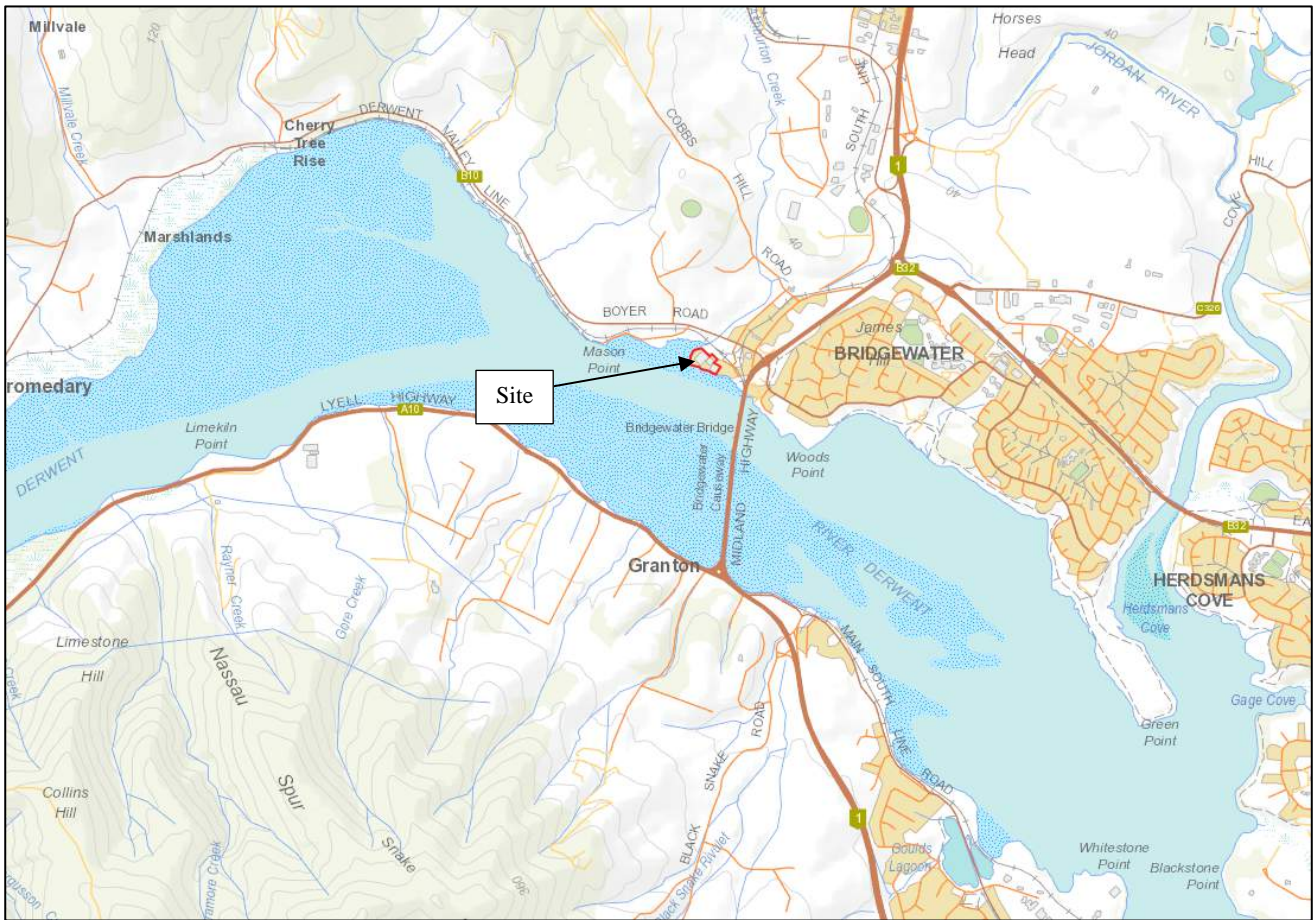


Figure 1 Site Location

3.3 Project Area Local Setting

The site has an area of approximately 1.62 Ha and appears to have its coastal boundary at the edge of the Derwent River (the low water mark). The elevation of the site ranges from 0 to 2.7 m AHD. Photo 1 shows the edge of the riverbank is lined with reeds, with a small area exposing underlying cobbles which lines the edge of the shoreline, providing some shoreline armouring.



Figure 2 Site Local Setting outlined in red (The LIST)



Photo 1. Cobbles lining the shoreline on the northern edge of the site, overlooking the Derwent River

4 Planning

4.1 Australian Building Code Board

This report presents a summary of the overall site risk to coastal erosion and inundation processes. This assessment has been conducted for the year 2070 which is representative of a ‘normal’ 50-year building design life category based on a 2018 baseline (ABCB 2015).

Per the Australian Building Code Board (ABCB 2015), when addressing building minimum design life:

‘The design life of buildings should be taken as ‘Normal’ for all building importance categories unless otherwise stated.’

As per Table 3-1, the building design life is 50 years for a normal building.

Table 3-1 Design life of building and plumbing installations and their components

Building Design Life Category	Building Design Life (years)	Design life for components or sub systems readily accessible and economical to replace or repair (years)	Design life for components or sub systems with moderate ease of access but difficult or costly to replace or repair (years)	Design life for components or sub systems not accessible or not economical to replace or repair (years)
Short	1 < dl < 15	5 or dl (if dl<5)	dl	dl
Normal	50	5	15	50
Long	100 or more	10	25	100

Note: Design Life (dl) in years

4.2 The Tasmanian Building Regulations 2016

The Tasmanian Building Regulations are regulated by the Consumer, Building and Occupation Services (CBOS) department and are formed from the Tasmanian Building Act 2016. New state-wide planning and building requirements are being implemented for hazardous areas. These include areas potentially subject to landslip, bushfire, flooding, coastal erosion, & costal inundation. Details of the Tasmanian Building Regulations are presented in Appendix 1.

4.3 Interim Planning Scheme Overlays

4.3.1 Waterways & Coastal Protection Areas (WCPA) Overlay

Part of the site falls within the Waterways & Coastal Protection Areas (WCPA) overlay (Figure 3).

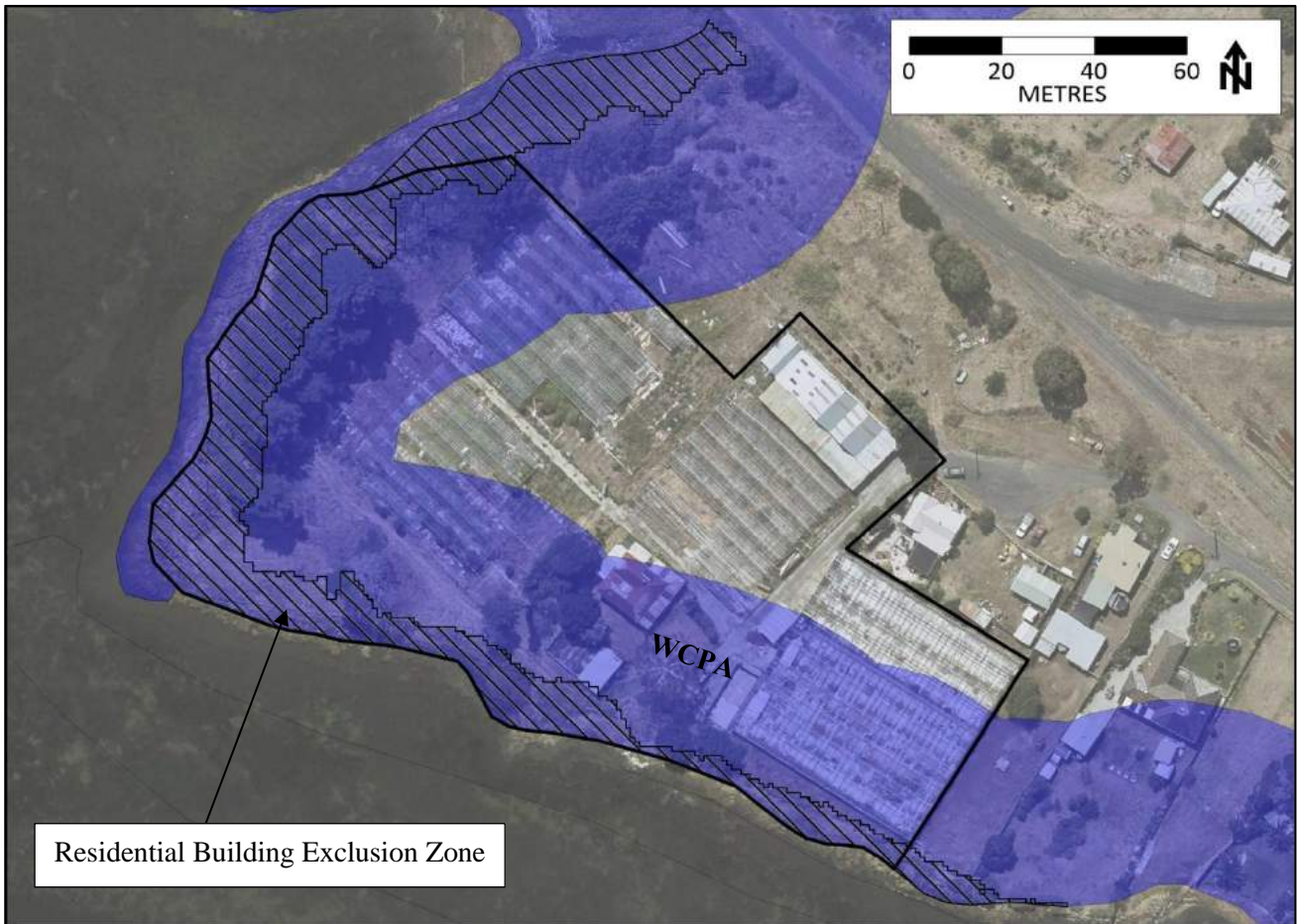


Figure 3 WCPA Overlay near the Site (The LIST)

4.3.2 Inundation Prone Areas Code (IPAC) Overlay

Part of the site falls within the high hazard Inundation Prone Areas Code (IPAC) overlay which is excluded from residential building development (Figure 4).

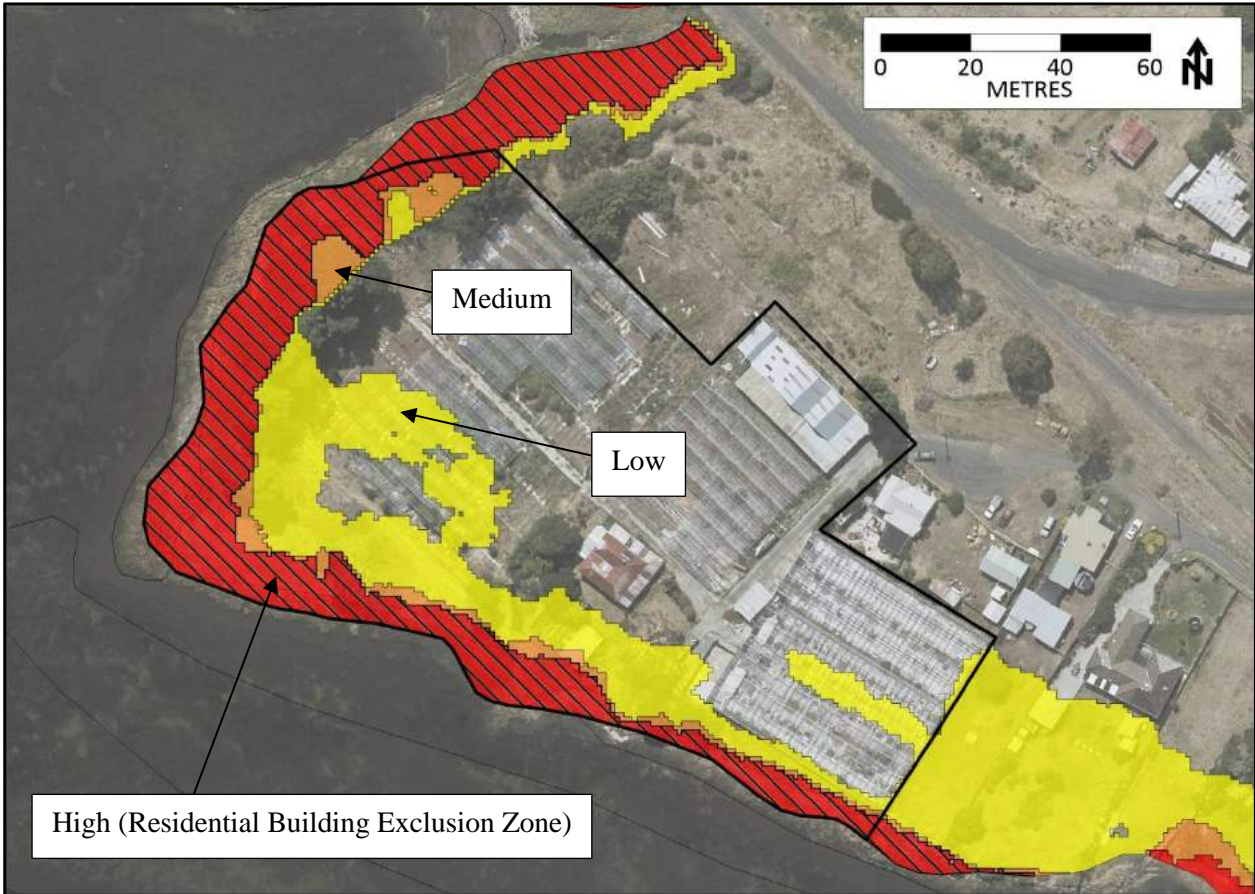


Figure 4 IPAC Overlay near the Site (The LIST)

4.3.3 Coastal Erosion Hazards Code (CEHC) Overlay

The majority of the site is within the Coastal Erosion Hazards Code (CEHC) overlay (Figure 5).

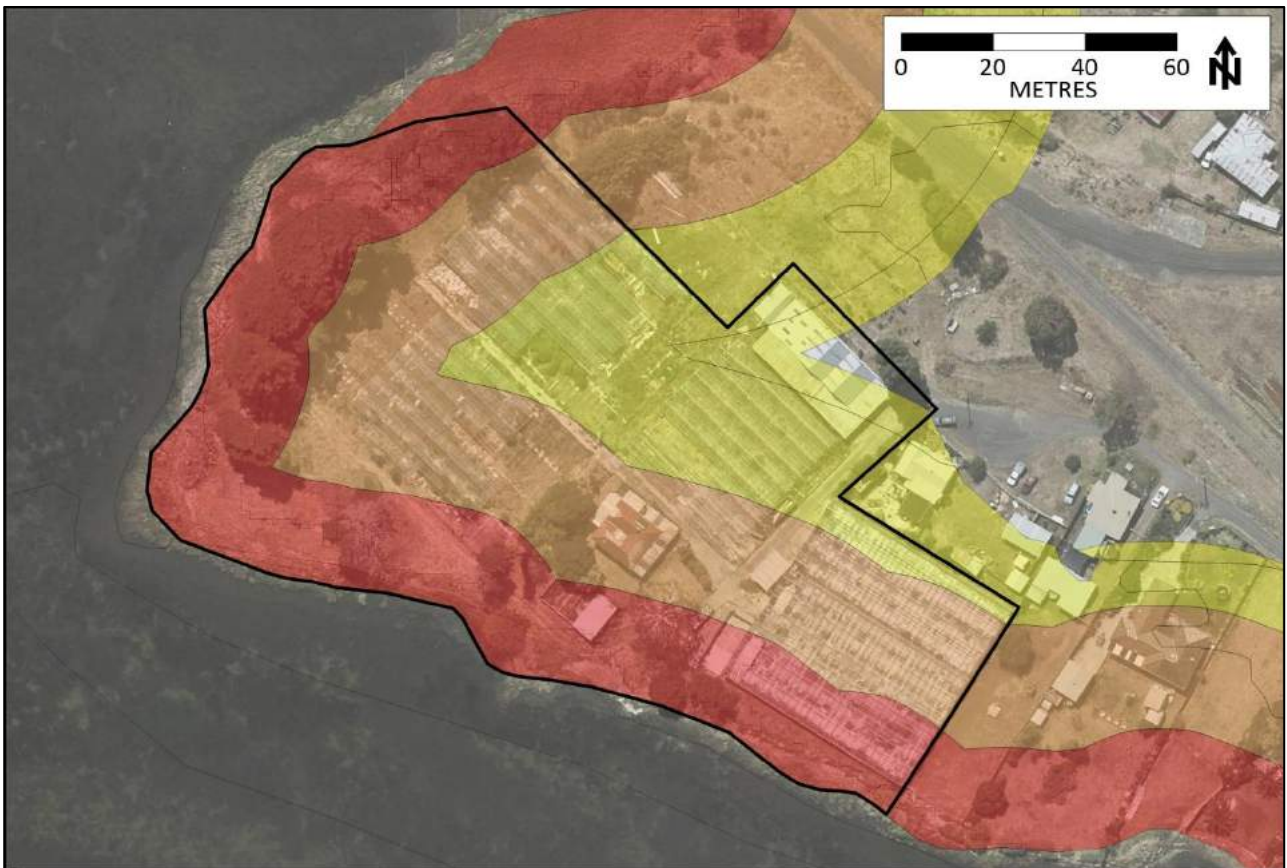


Figure 5 CEHC Overlay near the Site (The LIST)

4.4 Proposed Development

The existing site layout plan is presented in Figure 6. Preliminary plans for the site have been provided to GES dated 18/12/20. An assessment has been conducted based on the plans provided.

Table 1 Summary of Proposed Development Areas Falling Within Potential Coastal Vulnerability Zones

Site Location	Elevation Range (m AHD)	WCPA (E11) Overlay	IPAC (E15) Overlay Low Risk	IPAC (E15) Overlay Medium Risk	IPAC (E15) Overlay High Risk	CEHC (E16) Overlay
Proposed Dodgem Car Arena	2.3 to 2.6	14%	-	-	-	100% (Low)
Proposed Hovercraft Shed	1.9 to 2.4	58%	25%	-	-	100% (Medium)

- Not within overlay



Figure 6 Site Layout & Borehole Locations

4.5 Acceptable Solutions

Where applicable, the need for further performance criteria compliance is summarised in Appendix 2.

4.5.1 Waterways and Coastal Protection Areas (WCPA)

E11.7.1 A1 Building and Works

Any building and works within the coastal erosion hazard overlay will require a Waterways and Coastal Protection Assessment.

*As the proposed building and works is within a WCPC area and is not within a building area on a plan of subdivision approved under this planning scheme, the proposed building **does not meet** E11.7.1 A1 acceptable solutions for buildings and works.*

As a note, E11.7.1 P1 (h) indicates the landfilling of wetlands should be avoided

4.5.2 Inundation Prone Areas Code (IPAC)

E15.6 Change of Use

Based on the IPAC code alone, the existing Shed 1 may be changed into a residential use provided that the floor levels are raised to 2.5 m AHD and a risk assessment is done for the existing building.

E15.7.3 A3 A non-habitable building in the **Low** IPAC overlay

Must have a floor area of no greater than 60 m² unless subject to a risk assessment.

4.5.3 Coastal Erosion Hazards Code (CEHC)

E16.6 A1 Change of Use

Any existing non habitable buildings at the site which are proposed to be changed to a habitable building will require a risks assessment done.

E16.7.1 A1 Buildings and works

In areas of the site that reside in the in the CEHC Area, there are no acceptable solutions for buildings and works in a CEHC Area, the E16.7.1 P1 performance criteria will need to be addressed.

4.6 Performance Criteria

4.6.1 Change of Use

Any potential change of use of existing non habitable buildings will be assessed in terms of addressing relevant IPAC and CEHC codes and where applicable building regulations.

4.6.2 Building and Works

Any potential building works (outbuilding, extension or new dwelling) in an IPAC low hazard overlay will be assessed as will be proposed building works in a CEHC and WCPA overlay.

5 Site Physical Assessment

5.1 Site Geology

According to the MRT 1:25,000 mapping, the site geology comprises of ‘older alluvium of river terrace, predominantly dolerite derived (Map Unit: Qpad).

5.2 Site Soil Assessment

A soil assessment was conducted for the site by GES (Figure 6). A push probe borehole was completed at the site. Hard dolerite has encountered between 0.8 and 1.6 m depth.

Table 2 Site Soil Profile

Depth To (m)				Horizon	Description
BH1	BH2	BH3	BH4		
0.1	0.1	0.3	0.1	Fill	Dark brown (SW) trace of clay, single grain, slightly moist, medium dense consistency
0.6	0.2			Rock	Greyish brown (GS) 50% stones & granite
			1.1	B2	Light olive brown (CH) moderate polyhedral structure, slightly moist, stiff consistency, high plasticity.
1.1	0.8		1.6	BC	Olive yellow & greyish brown (CL), weak polyhedral structure. Slightly moist, hard consistency, 50% fine gravels 10% stones. Refusal on dolerite
		0.4		A3	Strong brown (SC) 10% clay, weak polyhedral structure. Slightly moist, hard consistency.
		0.8		B/C	Olive brown & Light Grey (CI) moderate polyhedral structure, slightly moist, very stiff consistency, medium plasticity, 10% gravels, refusal on dolerite.

5.3 NRM Assessment

The LIST presents a summary of the site coastal vulnerability over a 100 m section of the coastline near the site (Appendix 4). The site is reported to have the following geomorphic conditions:

- Moderately to very steep or cliffed soft clayey-gravelly or colluvial;
- Soft muddy shore mainly backed by bedrock

The site has the following natural values:

- Geovalue -2 (moderate geoconservation priority)
- Natural values index – 3 (low integrated conservation value - CFEV)

6 Inundation Assessment

6.1 Scope of Works

GES have conducted a site-specific assessment to determine the longer-term recession potential. The following assessment scope of works has been adopted for the site:

- Conduct targeted site-specific modelling;
- Assess site inundation levels for the proposed 50-year design life of the structure (to 2070) as well as for 2100;
- Conduct site specific hydrodynamic modelling to determine 1% AEP wave run-up and wave setup for 2070 which may impact on site erosion potential; and
- Use the hydrodynamic information to determine the likelihood of soft sediment erosion along the shoreline.

6.2 Site Baseline Seawater Levels

6.2.1 Storm Tide

Storm tide events may be defined in terms of the culmination of astronomical tide and storm surge events. Maximum storm tide inundation levels have been adopted for the site based on a 1% AEP that an inundation event will occur. Storm tide levels are obtained from the IPS (2015) inundation hazard tables.

The storm tide level adopted for the site 1.33 m

6.2.2 Sea Level Rise

The IPS (2015) has adopted the following sea level rise estimates-based RPC projections with reference to a 2010 baseline:

- 0.2 m rise by 2050; and
- 0.39 m rise by 2070.

Based on these figures, sea level elevations presented in Table 3 are applied to the site. 2070 projections are used reference the design life of the proposed structures.

Table 3 Present Day & Projected Inundation Levels for Various Scenarios

Scenario	Present Day	Normal subsystems with 15 Year Design Life ¹	Normal subsystems with 50 Year Design Life ²
Projected IPS Scenario for Brighton	2020 IPS	2035 IPS	2070 IPS
Sea Levels (m AHD)	0.03	0.10	0.39

1 Includes decks, retaining structures, wastewater treatment systems, and small non habitable buildings

2 Residential and commercial buildings and extensions as well as large non habitable buildings

6.2.3 Stillwater Levels

The effects of storm tide may be combined with sea levels projections to provide baseline water levels (reported in m AHD) which are referred to as still water level.

The still-water levels adopted for the site are presented in Table 4.

Table 4 1% ARI Stillwater Levels at the Site based on Present Day and 2070 Sea Level Projections

Stillwater Elevations	2020 IPS	2070 IPS
Sea Levels (m AHD) Sea Levels (m AHD)	0.03	0.39
Local 1% AEP Storm Tide Influence (above 0 m AHD)	1.33	1.33
Local Wind Setup (m)*	0.14	0.12
Wind Setup Direction	west	west
Summary (m AHD)	1.50	1.84

6.3 Site Hydrodynamics

Coastal process hydrodynamics were assessed at the site. Information collected is used to assist in interpreting site specific:

- Maximum site inundation levels;
- Effects of storm inundation levels on site erosion;
- Longer term recession trends.

Without consideration of site hydrodynamic wave models, these potential hazards cannot be addressed. Depending on the planning requirements and the level of site risk, this information may or may not have not have been utilised in the site inundation and/or erosion model. It is recognised however, that a site specific coastal processes study is imperative in any coastal vulnerability assessment which seeks to identify the potential hazards and potential risks to assets and life.

Nearshore wave heights are also calculated from localised wind conditions.

Where applicable, the wind fetch wave model has been developed based on the CEM (2008) and SPM (1984) formulations which interpret site bathymetry, topography and wind speeds.

Hydrodynamic risks are measured in terms of 1% AEP events. Site specific processes considered in this section include but are not limited to the following (some of which are detailed in Figure 8):

- Wave runup;
- Wave setup; and
- Wind setup.

A 300 mm freeboard value has been adopted by the IPS (2015) to account to for the Tasmanian Building Act 2000 regulations. Site hydrodynamic factors are included within this 300 mm freeboard zone which essentially defines any hydrodynamic inundation processes which are above the adopted still water levels. The 300 mm value will tend to overestimate inundation levels at some sites and underestimate inundation levels at other sites.

As wind setup, wave setup and wave runup normally occur simultaneously during storm surge events, these components are combined with extreme tide and storm surge predictions to provide maximum inundation levels for the site. Wave models have been generated for the site to define the site specific hazards.

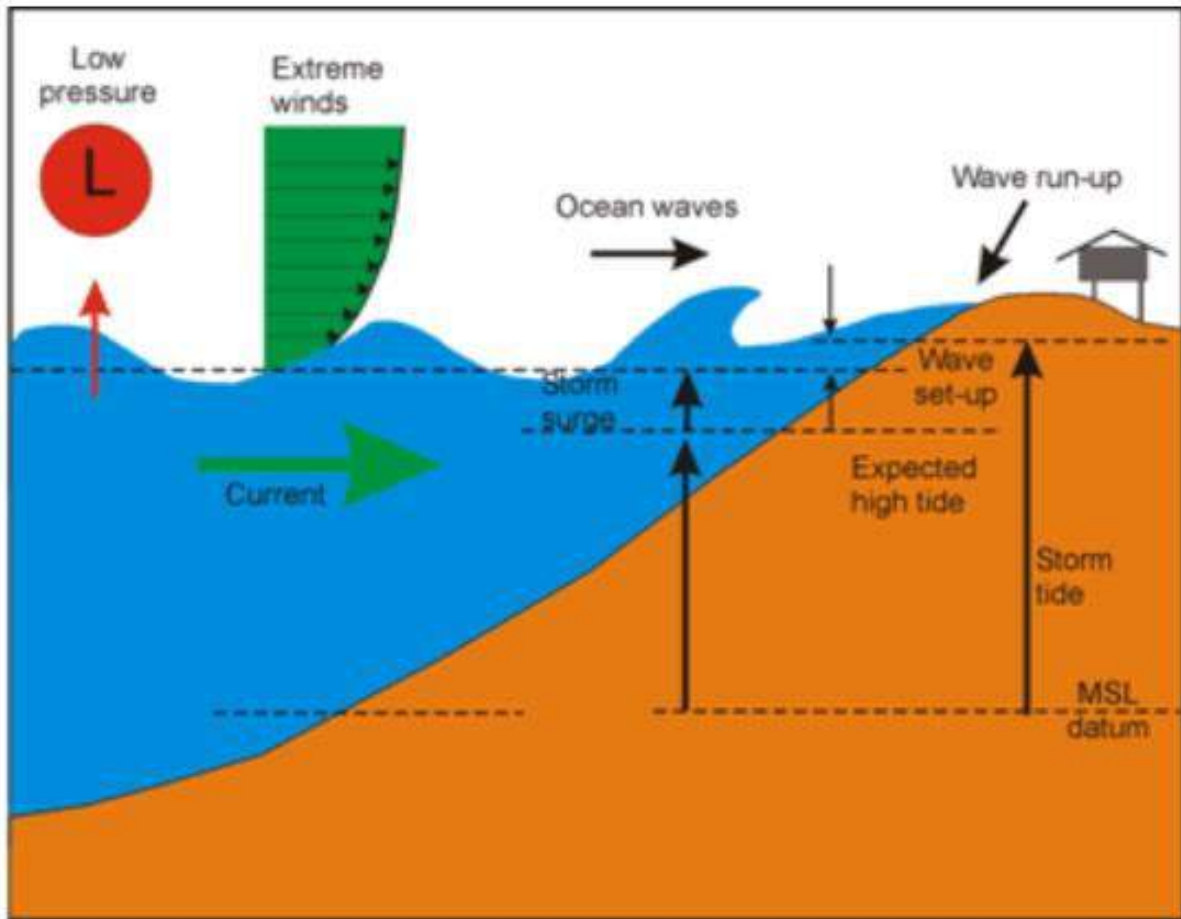


Figure 7 Hydrodynamic Parameters Associated with Storm Surge Events

6.3.1 Site Wave Conditions

Radials were used to derive local wave conditions at the site are presented in Appendix 4. Table 5 provides a summary of the dominant waves intercepting the site.

Table 5 Summary of Dominant Waves Intercepting the Site

Wave Details	Local Wind Fetch	Local Wind Fetch	Local Wind Fetch
Direction	West	Southwest	Southeast
Design Significant Wave Height (m)*	0.9	0.7	0.8
Design Wave Period (s)*	2.6	2.1	2.6
Approach Angle	30	25	30

6.3.2 Dominant Wave Characteristics

The most dominant wave originates from a westerly wind wave (summarised in Table 6).

Table 6 Details of the Dominant Wave Intercepting the Site

Wave Position	Parameter	Value
Nearshore (Design Significant Wave)	Origin	Local Wind Fetch
	Direction	West
	Approach Angle	30
	Wave Height (m)	0.9
	Design Period (s)	2.6
Breaking	Breaker Height (m)	0.9
	Breaking Depth (m)	1.4
	Breaking Angle	23
	Nearshore Gradient (%)	6.0

6.3.3 Nearshore Hydrodynamics

Hydrodynamic variables calculated for the site are presented in Table 7. Inundation levels at the site are calculated from these individual components combined with the stillwater levels.

Table 7 Site 1% AEP Wave Hydrodynamics Based on Present Day & 2070 Scenarios

Coastal Process	2020 IPS	2070 IPS
Modelled Worst Case Scenario Combined Wave & Wind Setup	Westerly Wind	Westerly Wind
Wave Setup (m)	0.14	0.15
Wind Setup (m)	0.14	0.12
Wave Runup Scenario	Westerly Wind	Westerly Wind
R2% Wave Runup Based on Mase (1989)*	0.53	0.35

6.4 Site Inundation Levels

Table 8 presents a summary of the site inundation levels based on 1% AEP still water, wind setup where applicable, wave runup and wave setup inundation levels for present day and 2070 building design life scenarios.

Table 8 Site Coastal Inundation Levels Based on Present Day & 2070 1% AEP Scenarios

1% AEP Inundation Levels (m AHD)	2020 IPS	2070 IPS
Coastal Still Water Elevations Including Wind Setup	1.50	1.84
Wave Setup Inundation	1.64	1.99
R2% Wave Runup Elevations Based on (Mase 1989)*	2.02	2.19

Wave runup at the site is expected to reach elevations of approximately 2.02 m AHD under present conditions and approximately 2.19 m AHD by 2070 based on a 1% AEP present day storm event and projected sea levels (DPAC 2012).

6.5 Summary

The following can be concluded from the inundation assessment:

- The Tasmanian Building Regulations do not stipulate design finished floor levels for non-habitable buildings.
- GES have identified that largest 1% AEP wave condition at the site is generated from a westerly wind wave with an offshore significant height of 0.9 m at 1.4 m water depth and a nearshore and largely attenuated significant wave height of 0.9 m near the site;
- Wave run up inundation levels for 2070 are calculated to be at 2.2 m AHD based on calculated 1% AEP wind waves from the west (the largest wave runup at the site)
- It is recommended that the finished floor levels for buildings established at the site are at or above 2.2 m AHD. On this basis, there is a low risk that the floors will be inundated by 2070 based on a 1% AEP event.

7 Coastal Erosion Assessment

7.1 Scope of Works

Table 9 presents a summary of the various methods adopted by GES to identify erosion hazards in vulnerable coastal zones.

Table 9 Summary of Assessment Approaches for Identify Site Erosion Hazards

Investigative Approach	Investigation Details	Typical Application
Short Term Site Historical Aerial Imaging	Assess historical short term shoreline positions relative to known storm events to forward project sediment storm erosion demand.	Used where Tasmac surveys are not available or there is no previous storm erosion modelling done for the site.
Storm Erosion Demand	Conduct a detailed assessment of site storm erosion vulnerability due to coastal processes as well as available geological and geomorphological information	Where site is in an inferred to be in an erosion hazard zone and where the proposed development building cannot be founded on a stable foundation.
Shoreline Recession Model	Development of a long term shoreline recession model based on projected DPAC (2012) sea level rise scenarios and using calculated closure depths and various Bruun Rule formulations (1988)	Where site is in an inferred to be in an erosion hazard zone and where the proposed development building cannot be founded on a stable foundation.
Stable Foundation Zones	Development of a cross section through the site detailing zone of reduced foundation capacity and the stable foundation zone through Nielsen et. al. (1992) methods	Where site is in an inferred to be in an erosion hazard zone and where the proposed development building cannot be founded on a stable foundation.

7.2 Aerial Imagery Recession Assessment

The coastline positions from 19 separate historical aerial images dating back to 2005 were compared with historical sea level measurements (Church & White 2011) and projected 2050 and 2100 sea levels as outlined in the IPS (2015) workings. Workings from the assessment are presented in Appendix 5.

Findings from the assessment are presented in Table 10.

Table 10 Summary of Coastline Recession Analysis

Variable	Value
Recession Profile ID	Point
2050 & 2100 sea level rise planning allowance adopted given 2010 baseline (DPAC 2016)	0.23 & 0.85 m
Confidence In Relationship (R^2)	0.27
Computer Generated Bruun Rule Relationship (horizontal recession per metre sea level rise)	65
Manually Inferred Recession Trend (Bruun Rule Relationship)	No Adjustment
Adopted Bruun Rule Relationship	65
Projected 2070 Horizontal Recession Relative to Geoscience Australia LIDAR	25

A coastline recession of 25 m horizontal is recommended for the site by 2070 based on the 2008 LIDAR Survey

7.3 Storm Erosion Demand Assessment

A storm erosion demand of 3 m³/m is recommended for the site.

7.4 Stable Foundation Zone

As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.

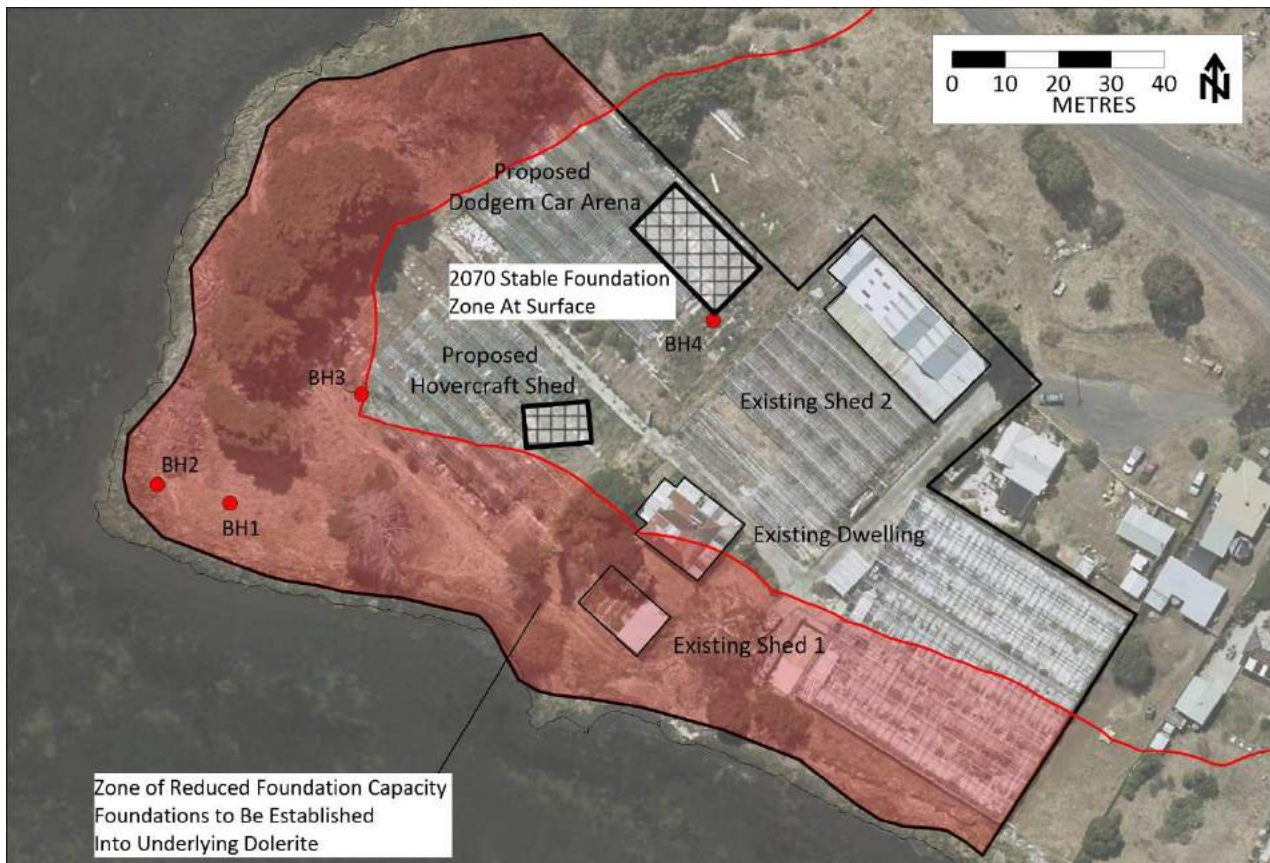


Figure 8 Summary of Projected 2070 Erosion Conditions

7.5 Summary

The following can be concluded from the coastal erosion assessment:

- It is established that up to 25 m of coastline recession may be expected by 2070.
- As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.

8 Risk Assessment

Qualitative risk assessment criteria have been developed to identify key risks that may arise from building works in areas that are vulnerable to erosion or inundation hazards.

The criteria are based on a risk assessment matrix consistent with Australian Standard AS4360 on Risk Management (AS4360). The qualitative assessment of risk severity and likelihood (Appendix 3) are used to help provide a qualitative risk assessment based upon the coastal vulnerability assessment completed for the site.

GES has established from the qualitative risk assessment that the level of risk is within the lowest bounds and the proposed development works at the site are acceptable.

9 Recommendations

- Given the extensive coastal erosion hazard overlay, the only possible way to subdivide the property is for creation of a lot for the purposes of public open space, public reserve or utilities;
- As indicated in section 4.6.2, there is a residential building exclusion zone which applies to the portion of the lot within the IPAC High hazard overlay. This portion may be allocated to public open space for the purpose of subdividing the lot. Allocation may not have to be limited to waterfront areas.
- It is recommended that construction be designed in accordance with Class M site classification as structures are not within the zone of reduced foundation capacity.
- For proposed buildings within the low inundation prone code area, it is recommended that finished floor levels are constructed at or above 2.2 m AHD to achieve acceptable risk.
- Infilling may be conducted in waterways and coastal protection area, provided they are not classified as a wetland.
- A soil and water management plan is required if there is proposed building works at the site;
- Any works are to be undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.

The site is in a very low risk setting in terms of erosion susceptibility. The proposed development and the site is free from any potential obstructions which may result from an extreme worst case scenario 1% AEP erosion event for 2070.



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10 Limitations

The following limitations apply to this report:

- Wave modelling in accordance with the CEM (2008), the SPM (1984) and wind parameters from AS/NZS 1170.2:2011;
- Navionics, TAFI, Geoscience Australia and Australia Hydrographic Service bathymetry;
- Light Detection And Ranging (LIDAR) digital elevation model (metadata file in Appendix 1) is calibrated or assessed to the closest ground control point for determining relative accuracy (Appendix 2);
- Storm surge observations where applicable
- The LIST cadastral information
- Photogrammetric modelling of historic coastal recession and/or progradation for the site was not undertaken. However, historic aerial photographs for the project area were reviewed and incorporated into a geographic information system enabling preliminary measurements of dune variations.
- The values estimated in this report provide an order of magnitude for assessing climate change impacts and in particular climate change induced sea level rise impacts. The information is based on a collation of existing information and data, with some site specific modelling for planning purposes.

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Appendix 1 Tasmanian Building Regulations 2016

Division 3 - Coastal inundation

Building in flood hazard areas - Construction standards

As identified in the directors Determination and regulation 56(3) of the Building Regulations 2016, the defined flood level is the level above the 0 metre Australian Height Datum with a one percent probability of being exceeded in a storm surge flooding event in the year 2100, as specified in the Coastal Inundation Hazard Band Levels List for the relevant locality in the relevant Local Provisions Schedule of the Tasmanian Planning Scheme

55. Coastal inundation hazard areas

- 1) For the purposes of the Act, land is a coastal inundation hazard area if –
 - a. the land is shown on a planning scheme overlay map as being land that is within a coastal inundation hazard area; and
 - b. the land –
 - i. is classified as land within a hazard band of a coastal inundation hazard area; or
 - ii. is shown on a planning scheme overlay map as being land in an investigation area for a coastal inundation hazard area and the land has not been subsequently classified as being an acceptable risk.
- 2) For the purposes of the definition of hazardous area in section 4(1) of the Act –
 - a. classification under a coastal inundation determination as being land that is within a hazard band of a coastal inundation hazard area is a prescribed attribute; and
 - b. a coastal inundation hazard area is a hazardous area.

56. Works in coastal inundation hazard areas

- 1) A person must not perform work in a coastal inundation hazard area unless he or she is authorised to do so under the Act.
- 2) If a person intends to perform work in an investigation area of a coastal inundation hazard area, the person must, before performing the work, ensure the land is classified, in accordance with the coastal inundation determination –
 - a. as being an acceptable risk; or
 - b. into a hazard band for the coastal inundation hazard area.
- 3) A person must not perform work on a building on land in a coastal inundation hazard area unless the floor level of each habitable room of the building, being erected, re-erected or added as part of the work, is at least 300 millimetres above the defined flood level for the land.
- 4) A responsible person for work being performed in a coastal inundation hazard area must ensure that the work is being performed in accordance with the Act and the coastal inundation determination.
- 5) A person performing work in a coastal inundation hazard area must ensure that the work complies with the Act and the coastal inundation determination.

Division 4 - Coastal erosion

57. Coastal erosion hazard areas

- 1) For the purposes of the Act, land is a coastal erosion hazard area if –
 - a. the land is shown on a planning scheme overlay map as being land that is within a coastal erosion hazard area; and
 - b. the land –
 - i. is classified as land within a hazard band of a coastal erosion hazard area; or
 - ii. is shown on a planning scheme overlay map as being land in an investigation area for a coastal erosion hazard area and the land has not been subsequently classified as being an acceptable risk.
- 2) For the purposes of the definition of hazardous area in section 4(1) of the Act –
 - a. classification under a coastal erosion determination as being land that is within a hazard band of a coastal erosion hazard area is a prescribed attribute; and
 - b. a coastal erosion hazard area is a hazardous area.

58. Works in coastal erosion hazard areas

- 1) A person must not perform work in a coastal erosion hazard area unless he or she is authorised to do so under the Act.
- 2) If a person intends to perform work in an investigation area of a coastal erosion hazard area, the person must, before performing the work, ensure that the land is classified in accordance with the coastal erosion determination –
 - a. as being an acceptable risk; or
 - b. into a hazard band for the coastal erosion hazard area.
- 3) A responsible person for work being performed in a coastal erosion hazard area must ensure that the work is being performed in accordance with the Act and the coastal erosion determination.
- 4) A person performing work in a coastal erosion hazard area must ensure that the work complies with the Act and the coastal erosion determination.

Appendix 2 Planning Scheme Acceptable Solutions

Waterways and Coastal Protection Areas (WCPA)

Standard	Code	Acceptable Solution	Performance Criteria	
Use	E11.6	There are no use standards in this code.		
Development	E11.7.1 Buildings & Works	A1	Building and works within a Waterway and Coastal Protection Area must be within a building area on a plan of subdivision approved under this planning scheme.	P1
		A2	Building and works within a Future Coastal Refugia Area must be within a building area on a plan of subdivision approved under this planning scheme.	P2
		A3	Buildings and works within a Potable Water Supply Area must be within a building area on a plan of subdivision approved under this planning scheme.	P3
		A4	Development must involve no new stormwater point discharge into a watercourse, wetland or lake.	P4
	E11.7.2 Dependent on a Coastal Location	A1	An extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway must be no more than 20% of the size of the facility existing at the effective date.	P1
		A2	No Acceptable Solution for dredging and reclamation.	P2
		A3	No Acceptable Solution for coastal protection works initiated by the private sector.	P3
Subdivision	E11.8.1 Subdivision	A1 Subdivision of a lot, all or part of which is within a Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area must comply with one or more of the following: a) be for the purpose of separation of existing dwellings; b) be for the creation of a lot for public open space, public reserve or utility; c) no works, other than boundary fencing works, are within a Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area; d) the building area, bushfire hazard management area, services and vehicular access driveway are outside the Waterway and Coastal Protection Area, Future Coastal Refugia Area or Potable Water Supply Area.	P1	

Coastal Erosion Hazard Code (CEHC) Areas

Standard	Code	Acceptable Solution	Performance Criteria	
Use	E16.6 Change of Use	A1 A1 No Acceptable solution	P1	
Development	E16.7.1 Buildings & Works	A1 A1 No Acceptable solution	P1	
	E16.7.2 Dependent on a Coastal Location	A1	A1 An extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway must be no more than 20% of the size of the facility existing at the effective date.	P1
		A2	A2 No Acceptable Solution for dredging and reclamation.	P2
		A3	A3 No Acceptable Solution for coastal protection works initiated by the private sector.	P3
Subdivision	E16.8.1 CEHC Area	A1	No Acceptable solution	P1
		A2	No Acceptable solution	P2
	Dependent on a Coastal Location	A1	No Acceptable solution	P1

Inundation Prone Areas Code (IPAC)

Standard	Code	Acceptable Solution	Performance Criteria	
Use	E15.6 Change of Use	A1 Change of use of a non-habitable building to a habitable building or a use involving habitable rooms must comply with all of the following: a. floor level of habitable rooms is no less than the AHD level for the Coastal Inundation Low Hazard Area in Table E15.1; b. floor level of habitable rooms is no less than the AHD level for the 1% AEP plus 300mm if in an area subject to riverine flooding.	P1	
Development	E15.7.1 High Coastal IPAC	A1	For a habitable building, including extensions to existing habitable buildings, there is no Acceptable Solution.	P1
		A2	A non-habitable building, an outbuilding or a Class 10b building under the Building Code of Australia, there is no acceptable solution.	P2
	E15.7.2 Medium Coastal IPAC	A1	New habitable building - No Acceptable solution	P1
		A2	An extension to an existing habitable building must comply with one of the following: (a) new habitable rooms must comply with both of the following: I. Floor level no lower than the Minimum Level for the Coastal Inundation Low Hazard Area in Table E15.1, II. Floor area of the extension no more than 40 m ² from the date of commencement of this planning scheme; (b) new habitable rooms must be above ground floor	P2
		A3	A non-habitable building, an outbuilding or a Class 10b building under the Building Code of Australia, must have a floor area no more than 40 m ² .	P3
	E15.7.3 Low Coastal IPAC	A1	A new habitable building must comply with the following: Floor level no lower than the Minimum Level for the Coastal Inundation Low Hazard Area in Table E15.1;	P1
		A2	An extension to a habitable building must comply with either of the following: (a) floor level of habitable rooms is no lower than the Minimum Level for the Coastal Inundation Low Hazard Area in Table E15.1; (b) floor area is no more than 60 m ²	P2
		A3	A non-habitable building, an outbuilding or a Class 10b building under the Building Code of Australia, must have a floor area no more than 60 m ² .	P3
	E15.7.4 Riverine IPAC	A1	A new habitable building must have a floor level no lower than the 1% AEP (100 yr ARI) storm event plus 300 mm.	P1
		A2	An extension to an existing habitable building must comply with one of the following: a) floor level of habitable rooms is no lower than the 1% AEP (100 yr ARI) storm event plus 300 mm; b) floor area of the extension no more than 60 m ² as at the date of commencement of this planning scheme.	P2
		A3	The total floor area of all non-habitable buildings, outbuildings and Class 10b buildings under the Building Code of Australia, on a site must be no more than 60 m ² .	P3
	E15.7.5 Riverine & Coastal IPAC	A1	For landfill, or solid walls greater than 5 m in length and 0.5 m in height, there is no acceptable solution.	P1
		A2	No acceptable solution where mitigation required	P2
		A3	A land application area for onsite wastewater management must comply with all of the following: a) horizontal separation distance from low water mark or from the top of bank of a watercourse or lake must be no less than 100 m; b) vertical separation distance from the water table must be no less than 1.5 m.	P3
	E15.7.6 Dependent on a Coastal Location	A1	An extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway must be no more than 20% of the size of the facility existing at the effective date.	P1
A2		No acceptable solution.	P2	
A3		No Acceptable Solution for coastal protection works initiated by the private sector.	P3	
Subdi	E15.8.1 Medium and High IPAC	A1 No Acceptable Solution.	P1	

Appendix 3 NRM Assessment

	Feature
Segment Id	15859
Segment Length (m)	100
Minimum Vulnerability: Coastal Vulnerability Mapping	Not a minimal vulnerability shoreline
Cliff Vulnerability: Coastal Vulnerability Mapping	Not a cliffed shoreline
Unclassified Vulnerability: Coastal Vulnerability Mapping	Not an unclassified vulnerability shoreline
Erosion Vulnerability: Coastal Vulnerability Mapping	Moderately to very steep or cliffed soft clayey-gravelly or colluvial
Sandy Vulnerability: Coastal Vulnerability Mapping	Not a sandy shoreline
Muddy Vulnerability: Coastal Vulnerability Mapping	Soft muddy shore mainly backed by bedrock
Coastal Vulnerability0	Muddy or silty shoreline
Coastal Vulnerability	No distinctively different lower intertidal shoreline element
Backshore Type Coastal Vulnerability	Bedrock (may include soil)
Artificial Shore	No
Industry1 500M	No industry present within 500m
Industry2 500M	No industry present within 500m
Industry3 500M	No industry present within 500m
Industry1 1Km	No industry present within 1km
Industry2 1Km	No industry present within 1km
Industry3 1Km	No industry present within 1km
Foreshore Structure1	No structure present
Structure1 Use Frequency	NA
Foreshore Structure2	No structure present
Structure2 Use Frequency	NA
Foreshore Structure3	No structure present
Structure3 Use Frequency	NA
Foreshore Structure4	No structure present
Structure4 Use Frequency	NA
Construction Level 100M	1 - 25%
Construction Level 500M	Mostly construction
Cleared Level 100M	76 - 100%
Cleared Level 500M	All cleared
Recreation Use1	No listed recreation use
Recreation1 Use Frequency	NA
Recreation Use2	No listed recreation use
Recreation2 Use Frequency	NA
Recreation Use3	No listed recreation use
Recreation3 Use Frequency	NA
Biological Feature Significance Value	
Protected Area	
Access1	Access Road
Access2	
Access3	
Access4	
Access5	
Vegetation Viability Coastal Values	Not assessed
Vegetation Significance Coastal Values	Non-native
Coastal Values	Not assessed
Vegetation Condition Coastal Values	NA
Habitat Condition SE Strategy	Not assessed
Conservation Significance SE Strategy	Not assessed
Reserve Class CAR	
Public Land Classification	Public Reserve
Coastal Zone Type PWS	

Marine Reserve	
LGA Reserve	
WHA	
Classification	4
Zoning	Recreation
Geomorphic Condition	Significantly disturbed
Actual Habitat Listed Significant SPP	
Potential Habitat Listed Significant SPP	
Geovalue	2
Sensitivity TGD	
Geomorphic Value	3
Tourism Use	No listed tourism use
European Heritage	Derwent River Conservation Area
Carcinus Maenas	Unknown
Crassostrea Gigas	Unlikely
Spartina Anglica	Absent
Undaria Pinnatifida	Unlikely
A Arenaria	Unlikely
A Populifolia	Unlikely
E Paralias	Unknown
E Villosa	Unlikely
T Junceiforme	Unlikely
Pollution Source1 500M	
Pollution Source2 500M	Urban stormwater outfall
Pollution Source3 500M	
Pollution Source1 1Km	Rural runoff
Pollution Source2 1Km	Urban stormwater outfall
Pollution Source3 1Km	Sewage outfall
Biology Attribute Value	3
Geomorphic Attribute Value	3
Natural Value Index	3
Amenities Attribute Value	5
Recreational Tourism Value	5
Value0	1
Human Use Value Index	4
Eco Disturbance Attribute Condition	4
Geomorphic Attribute Condition	4
Introduced Species Attribute Condition	3
Condition Index	4
Anthropogenic Modification Attribute Pressure	3
Pollution Attribute Pressure	5
Recreational Tourism Attribute Pressure	1
Pressure	5
Introduced Species Attribute Pressure	2
Pressure Index	3
Further Information	An explanatory report accompanies this dataset and can be obtained from http://www.aquenal.com.au/reports.htm or by emailing coastal.enquiries@environment.tas.gov.au

Natural Values Index

Foreshores within or directly adjacent to protected natural areas are assumed to have a higher degree of naturalness compared to those adjacent to developed areas. This indicator aims to identify foreshores that are part of wider natural functioning systems, rather than focussing on individual ecological elements. High value protected areas are selected based on reservation status and the associated restrictions on activities.

Natural Value Index of 1

Significant community or habitat present.

Foreshores assigned the highest value score (i.e. a score of 1) under this indicator are those within or directly adjacent to a dedicated formal reserve equivalent to IUCN (International Union for Conservation of Nature) protected area management categories i, ii, iii, iv, or vi (see IUCN Guidelines for Applying Protected Area Management Categories (Dudley 2008) for Shore Base: A Coastal Management Tool Aquenal Pty Ltd 96 further detail). Formal reserves include National Parks, State Reserves, Game Reserves, Nature Reserves, Historic sites, Forest Reserves, Conservation areas, and areas with a Conservation Covenant.

Natural Value Index of 2

Medium Integrated Conservation Value (CFEV)

High value foreshores (i.e. those assigned a score of 2) are those within or directly adjacent to areas not listed under IUCN equivalents but included in other Informal Reserves, and State or Forestry Managed Land.

Geomorphic Attribute Value (Geomorphology)

Geomorphic value is derived from a calculation of geoconservation priority (Geovalue) and the sensitivity category applied to sites of geoconservation significance by the Tasmanian Geoconservation Database (TGD). Geovalues (Sharples and Mowling 2006) are designed to highlight coastal segments which are most likely to warrant management attention regarding the maintenance of geoconservation value.

Geovalue of 1

Indicates high geoconservation priority, with coastal segments having either the highest sensitivity to disturbance, and/or the most natural condition.

Geovalue of 2

Indicate moderate geoconservation priority.

Geovalue of 3

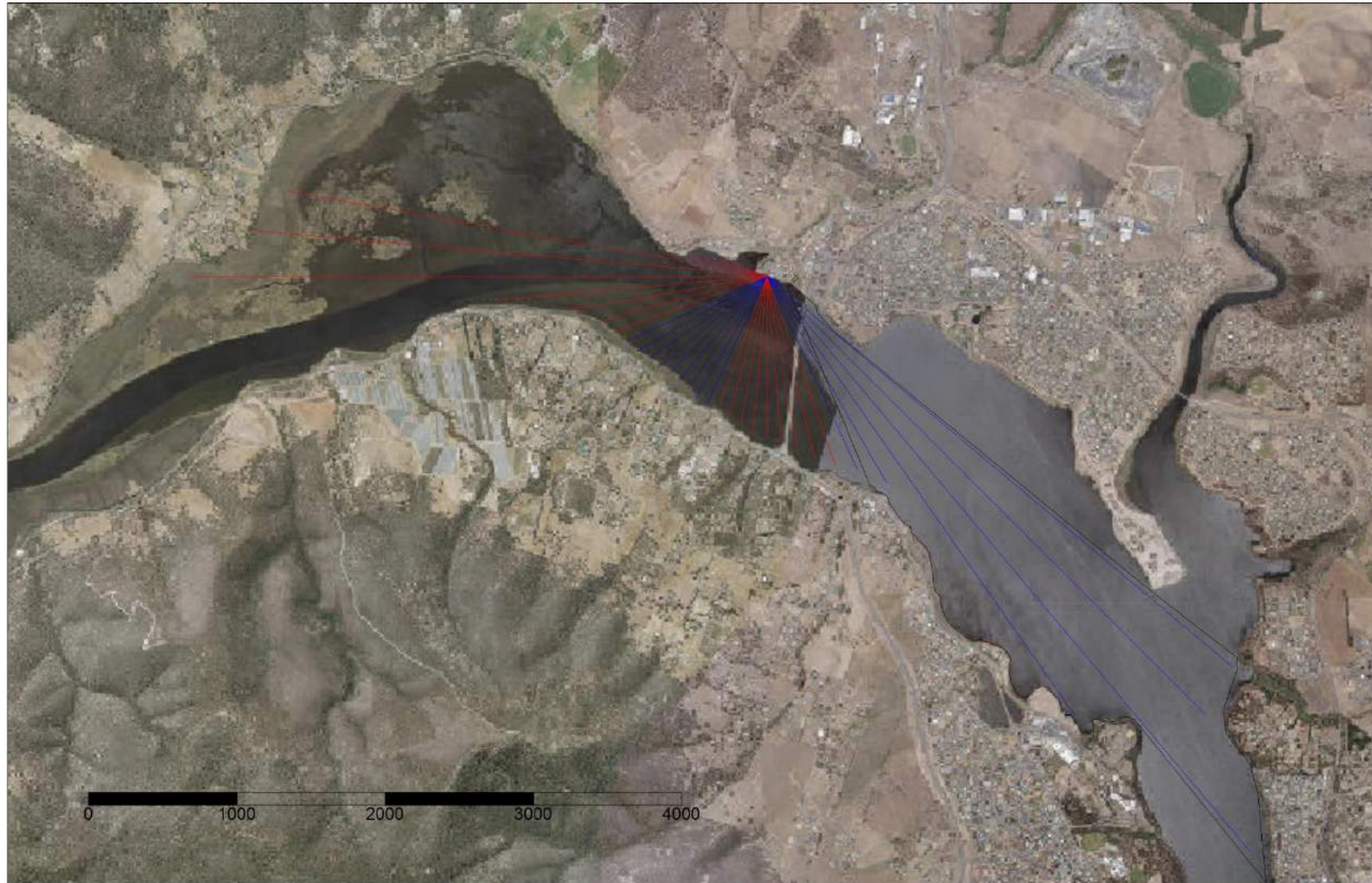
Indicate moderate to low geoconservation priority.

Geovalue of 4

Indicates lowest geoconservation priority where coastal segments are of low sensitivity to disturbance, yet are significantly disturbed. This mainly refers to hard rock shores that have been extensively modified.

See Sharples and Mowling (2006) for further information on calculation of Geovalues.

Appendix 4 Wave Modelling Figures



Appendix 5 Risk Assessment References

Consequence Index

Consequence	Details - Storm Erosion and Inundation	Details – Waterways and Coastal Protection
Catastrophic	Loss of life, loss of significant environmental values due to a pollution event where there is not likely to be recovery in the foreseeable future.	Very serious environmental effects with impairment of ecosystem function. Long term, widespread effects on significant environment (eg. RAMSAR Wetland)
Major	Extensive injuries. Complete structural failure of development, destruction of significant property and infrastructure, significant environmental damage requiring remediation with a long-term recovery time.	Serious environmental impact effects with some impairment of ecosystem function. Relatively widespread medium-long term impacts.
Moderate	Treatment required, significant building or infrastructure damage i.e. loss of minor outbuildings such as car ports, garages and the like. Replacement of significant property components. linings, hard paved surfaces, cladding, flooring. Moderate environmental damage with a short-term natural or remedial recovery time.	Moderate effects on biological or physical environment (air, water) but not affecting ecosystem function. Moderate short term widespread impacts (e.g. significant spills)
Minor	Medium loss – repair of outbuildings and repair and minor replacement of building components of buildings. Replacement of floor/window coverings, some furniture through seepage (where applicable). Minor environmental damage easily remediated.	Minor effects on biological or physical environment. Minor short-term damage to small area of limited significance.
Insignificant	No injury, low loss – no replacement of habitable building components, some remediation of garden beds, gravel driveways etc. Environment can naturally withstand and recover without remediation. Inundation of the site, but ground based access is still readily available and habitable buildings are not inundated, including incorporated garages.	Limited damage to minimal area of low significance.

Source: AN/NSW 4360:2004 Risk Management

Likelihood Index

Level	Descriptor	Description	Guideline
A	Almost Certain	Consequence is expected to occur in most circumstances.	Occurs more than once per month.
B	Likely	Consequence will probably occur in most circumstances.	Occurs once every 1 month – 1 year.
C	Occasionally	Consequence should occur at some time.	Occurs once every 1 year - 10 years.
D	Unlikely	Consequence could occur at some time.	Occurs once every 10 years – 100 years.
E	Rare	Consequence may only occur in exceptional circumstances.	Occurs less than once every 100 years.

Source: AS/NZS 4360:2004 Risk Management

Qualitative Risk Matrix

Likelihood of the Consequence	Maximum Reasonable Consequence				
	(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Catastrophic
(A) Almost certain	11 High	16 High	20 Extreme	23 Extreme	25 Extreme
(B) Likely	7 Moderate	12 High	17 High	21 Extreme	24 Extreme
(C) Occasionally	4 Low	8 Moderate	13 High	18 Extreme	22 Extreme
(D) Unlikely	2 Low	5 Low	9 Moderate	14 High	19 Extreme
(E) Rare	1 Low	3 Low	6 Moderate	10 High	15 High

Source: AS/NZS 4360:2004 Risk Management

Appendix 6 Qualitative Risk Assessment

E16.7.1 P1 Building and Works in a WCPA

Performance Criteria E11.7.1 P1 Building and works within a Waterway and Coastal Protection Area must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) avoid or mitigate impact on natural values	The local area has a Natural Value Index of 3 indicating that it is not a high conservation value area (Appendix 3). The site is largely modified with introduced flora.	A soil and water management plan is required if there is proposed building works at the site.	Insignificant (1)	Rare (E)	Low (1)	No
(b) mitigate and manage adverse erosion, sedimentation and runoff impacts on natural values	Given the soil type at the site, there is a low risk that the soil will be subject to significant erosion.	See E11.7.1 P1 (a)	Minor (2)	Unlikely (D)	Low (5)	No
(c) avoid or mitigate impacts on riparian or littoral vegetation	The site has the boundary line at the high tide mark. The ecosystem is heavily degraded from upstream activities. Where applicable, a flora and fauna assessment may be required.		Minor (2)	Unlikely (D)	Low (5)	No
(d) maintain natural streambank and streambed condition, (where it exists)	Not applicable					
(e) maintain in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation	Not applicable					
(f) avoid significantly impeding natural flow and drainage	There is a low risk that infilling of the site will result in a significant impediment to natural flow and drainage.		Minor (2)	Unlikely (D)	Low (5)	No
(g) maintain fish passage (where applicable);	Not applicable					
(h) avoid landfilling of wetlands	Preliminary findings have identified a narrow fringe or wetland within the title (The LIST).	This fringe of wetland should not be infilled.	Minor (2)	Unlikely (D)	Low (5)	No
(i) works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.		Works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.				

NEW HABITABLE BUILDING – COASTAL IPAC MEDIUM

Performance Criteria E15.7.2 P1 A new habitable building must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) floor level of habitable rooms must be no lower than the Minimum Level for the Coastal Inundation Low Hazard Area in Table E15.1;		All finished floor levels of new dwellings are to be at 2.2				
(b) risk to users of the site, adjoining or nearby land is acceptable;	Based on 2070 timeframe, there is a low risk of site inundation at 2.2 m AHD.		Insignificant (1)	Rare (E)	Low (1)	No
(c) risk to adjoining or nearby property or public infrastructure is acceptable;	See E15.7.2 P1 (b)		Insignificant (1)	Rare (E)	Low (1)	No
(d) risk to buildings and other works arising from wave run-up is adequately mitigated through siting, structural or design methods;	See E15.7.2 P1 (b)		Insignificant (1)	Rare (E)	Low (1)	No
(e) need for future remediation works is minimised;	See E15.7.2 P1 (b)		Insignificant (1)	Rare (E)	Low (1)	No
(f) access to the site will not be lost or substantially compromised by expected future sea level rise either on or off-site;	See E15.7.2 P1 (b)		Insignificant (1)	Rare (E)	Low (1)	No
(g) provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works;	See E15.7.2 P1 (b)		Insignificant (1)	Rare (E)	Low (1)	No

NEW HABITABLE BUILDING EXTENSION – COASTAL IPAC MEDIUM

Performance Criteria E15.7.2 P2	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
<p>An extension to an existing habitable building must satisfy all of the following:</p> <p>(a) new habitable rooms must satisfy one of the following:</p> <p>(i) floor level no lower than the Minimum Level for the Coastal Inundation Low Hazard Area in Table E15.1;</p> <p>(ii) floor level no lower than the existing floor level and a floor area of the extension no more than 40 m² as at the date of commencement of this planning scheme;</p>	<p>The medium inundation hazard band is very narrow. It is unlikely that a 40 m² extension will extend into this overlay.</p>		Unlikely (D)	Rare (E)	Low (3)	
<p>(b) risk to users of the site, adjoining or nearby land is not increased;</p>	<p>Low risk of inundation by 2070</p>	<p>See E15.7.2 P2 (a)</p>	Unlikely (D)	Rare (E)	Low (3)	
<p>(c) risk to adjoining or nearby property or public infrastructure is not increased;</p>	<p>Low risk of inundation by 2070</p>	<p>See E15.7.2 P2 (a)</p>	Unlikely (D)	Rare (E)	Low (3)	
<p>(d) provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works.</p>	<p>Low risk of inundation by 2070</p>	<p>See E15.7.2 P2 (a)</p>	Unlikely (D)	Rare (E)	Low (3)	

Non-Habitable Building, an Outbuilding or a Class 10b Buildings With A Floor Area Exceeding 40 m² – Coastal IPAC MEDIUM

Performance Criteria E15.7.2 P3 A non-habitable building, an outbuilding or a Class 10b building under the Building Code of Australia, must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) risk to users of the site, adjoining or nearby land is acceptable;	The medium inundation hazard band is very narrow. Any building in this overlay is likely to encroach into the inundation high overlay.					
(b) risk to adjoining or nearby property or public infrastructure is acceptable;	See E15.7.2 P3 (b)					
(c) risk to buildings and other works arising from wave run-up is adequately mitigated through siting, structural or design methods;	See E15.7.2 P3 (b)					
(d) need for future remediation works is minimised;	See E15.7.2 P3 (b)					
(e) provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works,	See E15.7.2 P3 (b)					

NEW DWELLING – Coastal IPAC LOW

Performance Criteria E15.7.3 P1 A new habitable building must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) risk to users of the site, adjoining or nearby land is acceptable;	Based on modelling for 2070, there is a low risk that parts of the Low Inundation hazard overlay area will be inundated above 2.1 m AHD.	It is recommended that finished floor levels are constructed at or above 2.2 m AHD to achieve acceptable risk.	Minor (2)	Unlikely (D)	Low (5)	No
(b) risk to adjoining or nearby property or public infrastructure is acceptable;	Low risk	See E15.7.3 P1 (a)	Minor (2)	Unlikely (D)	Low (5)	No
(c) risk to buildings and other works arising from wave run-up is adequately mitigated through siting, structural or design methods;	Low risk	See E15.7.3 P1 (a)	Minor (2)	Unlikely (D)	Low (5)	No
(d) need for future remediation works is minimised;	Low risk	See E15.7.3 P1 (a)	Minor (2)	Unlikely (D)	Low (5)	No
(e) access to the site will not be lost or substantially compromised by expected future sea level rise either on or off-site;	Low risk	See E15.7.3 P1 (a)	Minor (2)	Unlikely (D)	Low (5)	No
(f) provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works;						

BUILDING EXTENSION - Coastal IPAC LOW

Performance Criteria E15.7.3 P2 An extension to an existing habitable building must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) floor level no lower than the existing floor level	There is the potential for an extension into this overlay. Based on modelling for 2070, there is a low risk that parts of the Low Inundation hazard overlay area will be inundated above 2.1 m AHD. The building finished floor is estimated at 2.2 m AHD.					
(b) risk to users of the site, adjoining or nearby land is not increased;	See E15.7.3 P2 (b)					
(c) risk to adjoining or nearby property or public infrastructure is not increased;	See E15.7.3 P2 (b)					

E15.7.3 P3 Non Habitable Building – Coastal IPAC LOW

Performance Criteria E15.7.3 P3 A non-habitable building must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) risk to users of the site, adjoining or nearby land is acceptable;	Low risk given 2070 timeframes		Insignificant (1)	Rare (E)	Low (1)	No
(b) risk to adjoining or nearby property or public infrastructure is acceptable;	See E15.7.3 P3 (a)		Insignificant (1)	Rare (E)	Low (1)	No
(c) need for future remediation works is minimised;	See E15.7.3 P3 (a)		Insignificant (1)	Rare (E)	Low (1)	No
(d) provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works,	See E15.7.3 P3 (a)		Insignificant (1)	Rare (E)	Low (1)	No

LANDFILL OR SOLID WALLS BUILT IN AN INUNDATION OVERLAY

Objective:

To ensure that landfill works do not unreasonably increase the risk from riverine, watercourse and inland flooding, and risk from coastal inundation.

Performance Criteria E15.7.5 P1 Landfill, or solid walls greater than 5 m in length and 0.5 m in height, must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) no adverse effect on flood flow over other property through displacement of overland flows;	Infilling is unlikely to have any adverse floodwater flow affect at the site.	Infilling may be conducted in WCPA areas provided they are not classified as a wetland.	Minor (2)	Unlikely (D)	Low (5)	No
(b) the rate of stormwater discharge from the property must not increase;	Not applicable		Minor (2)	Unlikely (D)	Low (5)	No
(c) stormwater quality must not be reduced from pre-development levels.	Not applicable		Minor (2)	Unlikely (D)	Low (5)	No

Change of Use in An Erosion Hazard Overlay

Performance Criteria E16.6 P1 Change of use of a non habitable building to a use involving habitable rooms must satisfy all of the following:	Relevance	Management Options	Managed Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) the use must not increase the risk to users of the site;	Consideration given to the 2070 zone of reduced foundation capacity.	As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.	Minor (2)	Unlikely (D)	Low (5)	No
(b) any increased reliance on public infrastructure must not result in an unacceptable level of risk;	See E16.6 P1 (b)		Minor (2)	Unlikely (D)	Low (5)	No
(c) need for future remediation works is minimised;	See E16.6 P1 (b)		Minor (2)	Unlikely (D)	Low (5)	No
(d) access to the site must not be lost or substantially compromised by increased future erosion expected to result from future sea level rise, either on or off-site;	See E16.6 P1 (b)		Minor (2)	Unlikely (D)	Low (5)	No
(e) provision of any developer contribution required pursuant to policy adopted by Council for coastal protection works.	See E16.6 P1 (b)		Minor (2)	Unlikely (D)	Low (5)	No

BUILDING AND WORKS WITHIN A COSTAL EROSION HAZARD AREA

Performance Criteria E16.7.1 P1 Buildings and works must satisfy all of the following:	Relevance	Management Options	Preliminary Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) not increase the level of risk to the life of the users of the site or hazard for adjoining or nearby properties or public infrastructure;	Consideration given to the 2070 zone of reduced foundation capacity.	As the proposed structures are not located within the zone of reduced foundation capacity, the foundations should be designed to account for the site classification Class M.	Minor (2)	Unlikely (D)	Low (5)	No
(b) erosion risk arising from wave run-up, including impact and material suitability, may be mitigated to an acceptable level through structural or design methods used to avoid damage to, or loss of, buildings or works;	This has been considered in modelling.		Minor (2)	Unlikely (D)	Low (5)	No
(c) erosion risk is mitigated to an acceptable level through measures to modify the hazard where these measures are designed and certified by an engineer with suitable experience in coastal, civil and/or hydraulic engineering;	Within building design life, no mitigation required if founded outside of the zone of reduced foundation capacity and in accordance with Class M site classification.		Minor (2)	Unlikely (D)	Low (5)	No
(d) need for future remediation works	Within building design life, no remediation required		Minor (2)	Unlikely (D)	Low (5)	No
(e) health and safety of people is not placed at risk	See E16.7.1 P1 (a)		Minor (2)	Unlikely (D)	Low (5)	No
(f) important natural features are adequately protected	See E11		Minor (2)	Unlikely (D)	Low (5)	No
(g) public foreshore access is not obstructed where the managing public authority requires it to continue to exist	NA		Minor (2)	Unlikely (D)	Low (5)	No
(h) access to the site will not be lost or substantially compromised by expected future erosion whether on the proposed site or off-site	NA		Minor (2)	Unlikely (D)	Low (5)	No
(i) provision of a developer contribution for required mitigation works consistent with any adopted Council Policy, prior to commencement of works.	NA		Minor (2)	Unlikely (D)	Low (5)	No
(j) not be located on an actively mobile landform	NA		Minor (2)	Unlikely (D)	Low (5)	No



7 Wallace Street, Bridgewater Storm Water Report REV01

Prepared For:
Brett Miller

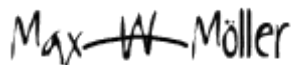


Before the flood
we map the risk

Level 4, 116 Bathurst Street
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<i>Title</i>	<i>Client</i>	<i>Document Number</i>	<i>Project Manager</i>
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Prepared by:

Max W. Möller

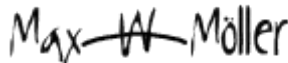
Date: 28th December 2020



Reviewed by:

John Holmes

Date: 28th December 2020



Authorised by:

Max W. Möller

Date: 28th December 2020

Revision History

Rev No.	Description	Prepared by	Reviewed by	Authorised by	Date
00	7 Wallace Street, Bridgewater, Stormwater Management Plan	Max W. Möller	John Holmes	Max W. Möller	28/12/2020
01	New Swale Drain Location Amended	Max W. Möller	John Holmes	Max W. Möller	01/01/2020

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1. Introduction

Flüssig Spatial has been engaged to undertake a site-specific Stormwater Management Plan (SMP) for the new sheds at number 7 Wallace Street, Bridgewater, including, but not limited to, lot and stormwater drainage analysis and MUSIC Modelling to stated stormwater quality standards. The purpose of this report is to determine the hydraulic characteristics and stormwater infrastructure capacity of a 5% AEP storm event and treatment on the existing and post-development scenarios for the two new roofed areas to comply with E7.7.1 Stormwater Drainage and Disposal.

E7.7.1 Performance Criteria P1:

Stormwater from new impervious surfaces must be managed by any of the following:

- Disposed of on-site with soakage devices having regard to the suitability of the site, the system design and water sensitive urban design principles.
- Collected for re-use on the site.
- Disposed of to public stormwater infrastructure via pump system which is designed, maintained and managed to minimise the risk of failure to the satisfaction of the council.

2. Site Characteristics

2.1 Site Location

7 Wallace Street, Bridgewater is located on the southern border of the **Brighton Council** municipality and is an approximately 1.62ha proposed development.

The development site is surrounded by rural resources, general residence, open areas, and utilities areas at the east boundary with Wallace Street St and the west boundary onto the River Derwent (Figure 1).



Figure 1. 7 Wallace Street, Bridgewater development location

4.2 Catchment Conditions

Brighton Council does not have any existing stormwater assets in the vicinity of the 7 Wallace Street subdivision. The existing ground conditions service the entire catchment area.

4.2.1 Design Intensity Storms

Design storm durations were calculated using Bransby-Williams formula for time of concentration (t_c) which gives a $t_c = 5$ min for the new roof catchments. 5% AEP rainfall amount (mm/hr) was taken from the BOM 2016 IFD curves (Table 1).

Table 1. BoM IFD table

Annual Exceedance Probability (AEP)								
Duration	Duration in min	63.20%	50%	20%	10%	5%	2%	1%
1 min	1	58.9	66.8	93.3	113	134	163	187
2 min	2	50.8	57.3	78.1	92.7	107	126	139
3 min	3	44.9	50.7	69.5	82.8	96.3	114	127
4 min	4	40.4	45.7	63.1	75.5	88.3	106	119
5 min	5	36.9	41.8	58	69.8	82	98.9	113
10 min	10	26.8	30.4	42.6	51.8	61.6	75.8	87.7
15 min	15	21.7	24.6	34.6	42.1	50.1	61.9	71.7
20 min	20	18.6	21.1	29.6	36	42.7	52.6	60.9
25 min	25	16.4	18.6	26.1	31.7	37.5	46	53.1
30 min	30	14.9	16.8	23.5	28.5	33.6	41.1	47.2
45 min	45	11.8	13.4	18.6	22.3	26.2	31.6	36
1 hour	60	10.1	11.4	15.7	18.8	21.9	26.2	29.6
1.5 hours	90	8	9.05	12.4	14.7	17.1	20.1	22.5
2 hours	120	6.8	7.7	10.5	12.4	14.3	16.8	18.7
3 hours	180	5.41	6.12	8.34	9.82	11.3	13.1	14.5
4.5 hours	270	4.28	4.86	6.62	7.79	8.9	10.4	11.4
6 hours	360	3.62	4.11	5.62	6.61	7.55	8.81	9.75
9 hours	540	2.83	3.22	4.43	5.23	5.99	7.03	7.82
12 hours	720	2.36	2.69	3.72	4.41	5.07	5.99	6.7

4.2.2 Land use

Roughness values for this model were derived from the ARR 2019 Guidelines. The Manning's n values are as follows in Table 2.

Table 2. Manning's n coefficients

Land Use	Manning's n
Swale Channel	0.025
Road	0.018
Urban Yards	0.035
Buildings	0.3

4.2.3 Runoff Coefficients

As per ARR2019 guidelines, the following Runoff Coefficient C_{10} values in Table 3 were adopted for the above land use area.

Table 3. Runoff Coefficients

Surface	Co-efficient of Runoff (C_{10})
Pervious	0.3
Impervious	0.9

4.3 Development Runoff

Stormwater runoff from the development site has been assessed under pre- and post-development models to determine the potential impact the development at 7 Wallace Street has on the immediate local flows. As per planning guidelines it is a requirement that this does not have a negative impact from pre to post development.

The site was modelled using Infoworks ICM hydrology (RAFTS) module, which uses the Australian designed Laurenson method to calculate runoff to the River Derwent. The catchment characteristics (% impervious, roughness etc.) were taken from best practice manuals.

Table 4. Site Characteristics

Land Use	Pre-Development		Post-Development	
	Area (ha)	% of total land	Area (ha)	% Impervious
Total Impervious	0.3	18.5	0.32	19.7
Total Pervious	1.32	81.5	1.30	80.3

4.4 Model Results

The pre- and post-development for the two new impervious area scenarios were calculated against the 5% AEP storm events. The storm durations derived from the time of concentration were 5 minutes.

The pre and post conditions can be seen in Table 5 below showing the peak discharge and increase in peak discharge from pre to post development as well as the maximum allowable discharge.

Table 5. Discharge rates pre- and post-development

Design Event (AEP)	New Roofed Areas Peak Discharge (m ³ /s)		
	Pre-Development	Post-Development	Difference
5%	0.0025	0.0061	0.0036

5. Water Quality

Water quality modelling for the site has been undertaken with the urban stormwater improvement conceptualisation software MUSIC. The modelling conducted in MUSIC has been done in accordance with MUSIC Modelling Guidelines (BMT WBM, August 2019) and the Tasmanian State Stormwater Strategy. This document provides a guide to water quality modelling methodology and outlines the assumptions that should be made when selecting input parameters.

Recommendations for the improvement of the water quality on site would include the diversion of stormwater flows from the subdivision to a primary treatment (treatment train). This would reduce the pollutants in the receiving waters further and be a safe design option if future usage of this sub catchment provides higher pollutant storm water runoff.

5.1 Stormwater Quality Treatment (construction phase)

During construction, many pollutants are generated from various sources. These pollutants can easily be captured in stormwater runoff and introduced into the downstream receiving environment, polluting the waterways. Some of the main construction phase pollutants are described below:

- Litter from construction – material packaging, paper, plastic, food packaging, off-cuts etc.
- Sediment erosion and transports from excavated material and fresh surfaces
- Hydrocarbons – equipment and machinery
- Toxic material – cement, solvents, paints, cleaning agents etc.
- pH altering substances – cement, cleaning agents etc.

Construction phase pollutants should be planned and mitigated for by a designed site-specific SWMP as part of the drawing set:

5.2 Stormwater Quality Modelling

Stormwater pollutant modelling for the development at 7 Wallace Street was undertaken using Model for Urban Stormwater Improvement Conceptualisation (MUSIC) software, version 6.3.0 under the guidelines of the State Stormwater Strategy and Interim Planning Scheme.

This model splits the catchment into the following typical areas:

- Roof Catchment
- Revegetated land

The following fraction impervious (fi) and land areas in Table 6 have been adopted in the modelling as per the concept design measurements. Revegetated land was left to freely drain to the node as there is no mechanism to drain this area to a treatment device.

Table 6. Adopted Fraction Impervious

Catchment Area (ha)	Roof Shed		Roof Hovercraft Shed		Pervious	
	Area (ha)	fi	Area (ha)	fi	Area (ha)	fi
1.62	0.0184	1	0.0093	1	1.6	0

5.2.1 Council Planning Quality Removal Standards

Brighton Council Interim Planning Scheme 2015 has adopted the pollutant removal targets and best practice from the State Stormwater Strategy 2010. See Table 7 for target removal rates.

Table 7. State Stormwater Strategy Pollutant Removal Targets

Parameter	Result Pollutant Retention on Developed Site
Total Suspended Solids (TSS) (kg/yr)	80%
Total Phosphorous (TP) (kg/yr)	45%
Total Nitrogen (TN) (kg/yr)	45%
Total Pollutants (kg/yr)	100%

5.3 Treatment Train

To achieve stormwater pollutant removal targets outlined above and considering site constraints, this model utilised a primary treatment train (Figure 3). The treatment train consists of a primary grassed swale drains servicing each lot.

5.4 Quality Results

The MUSIC pollutant load reductions can be seen detailed in Table 8 below. As can be seen when comparing the MUSIC results to the required state stormwater strategy target load reductions, the specified treatment train outlined above and as seen in Figure 3, shows that all targets either meet or exceed reduction targets.

Table 8. Pollutant Removal Achieved vs Targets

Parameter	Required Load Reduction (%)	MUSIC Modelled Load Reduction (%)	State Stormwater Targets Achieved (Y/N)
Total Suspended Solids (TSS) (kg/yr)	80.0	96.2	Y
Total Phosphorous (TP) (kg/yr)	45.0	79.9	Y
Total Nitrogen (TN) (kg/yr)	45.0	69.9	Y
Total Pollutants (kg/yr)	90.0	100	Y

Based on the water quality assessment using the MUSIC software, it is found that the pollutant reduction improvement can be achieved by adopting the proposed grassed swale drain.

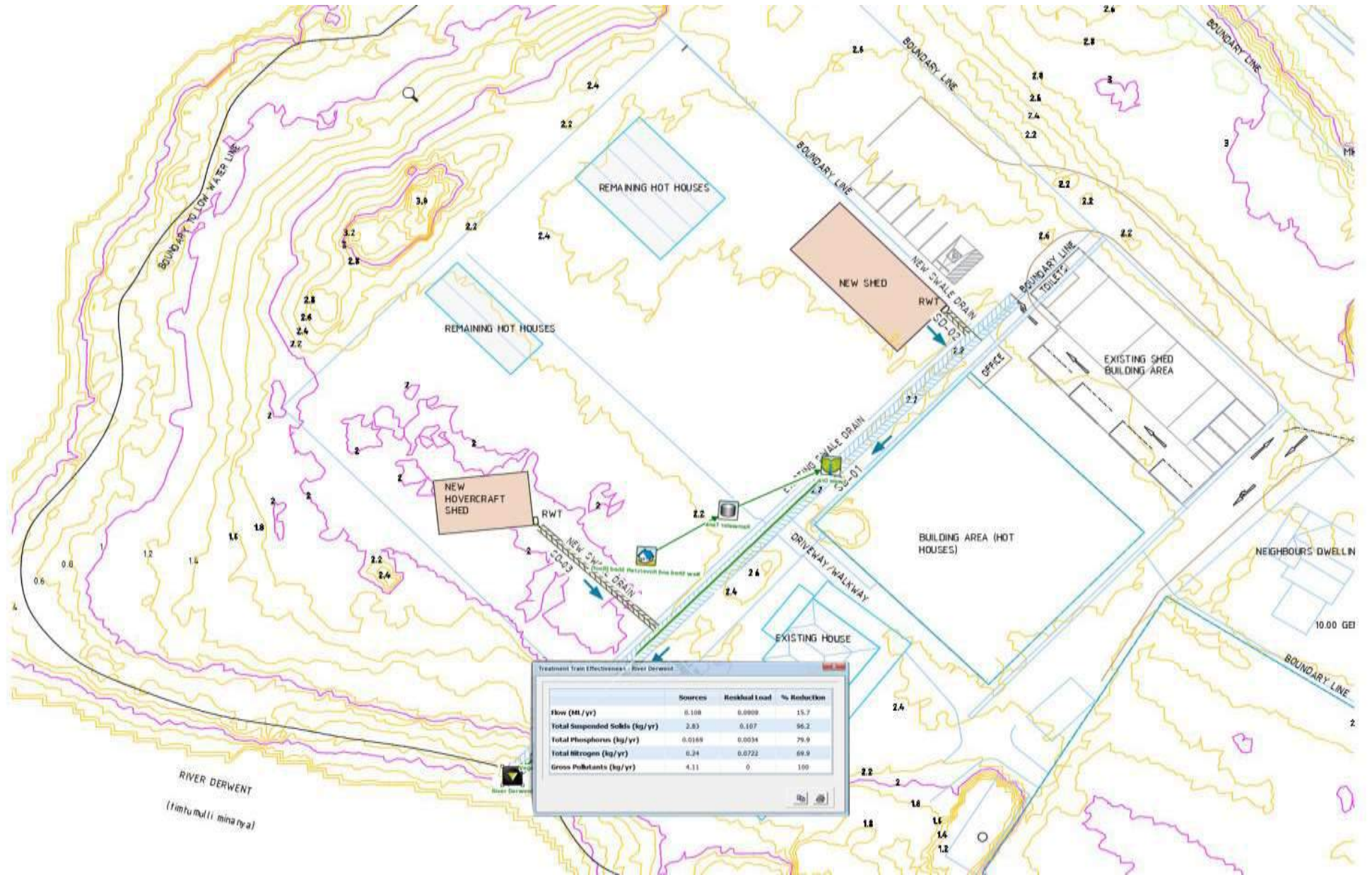


Figure 3. MUSIC Treatment Train Effectiveness Result

5.5 Quality Summary

Flüssig Spatial recommends the following be undertaken to ensure the ongoing stormwater quality from the developed site:

1. Construction quality control should be implemented to prevent pollution during construction
2. Installation of primary grassed swale drain in the order specified in this document
3. Maintenance plans need to be created and adhered to ensure the ongoing operation of the systems

6. Conclusion

The Stormwater System Management Plan for 7 Wallace Street, Bridgewater development site has reviewed the post development quantity and quality scenarios. Post-development quantity and quality has been assessed against the Brighton Council Stormwater Runoff Management Policy and the State Stormwater Strategy to ensure the post-development flows meet specified standards.

The following conclusions were derived in this report:

1. The total volume of 0.0036m³ is stored from the new two roofed areas and drains freely to the swale drain.
2. Grassed swales drain designed and sized using MUSIC can achieve required pollutant removal through the construction and dimensions specified in Appendix A.

Under the Stormwater Management Plan, the development site will meet current specified standards for both quantity and quality control.

7. Limitations

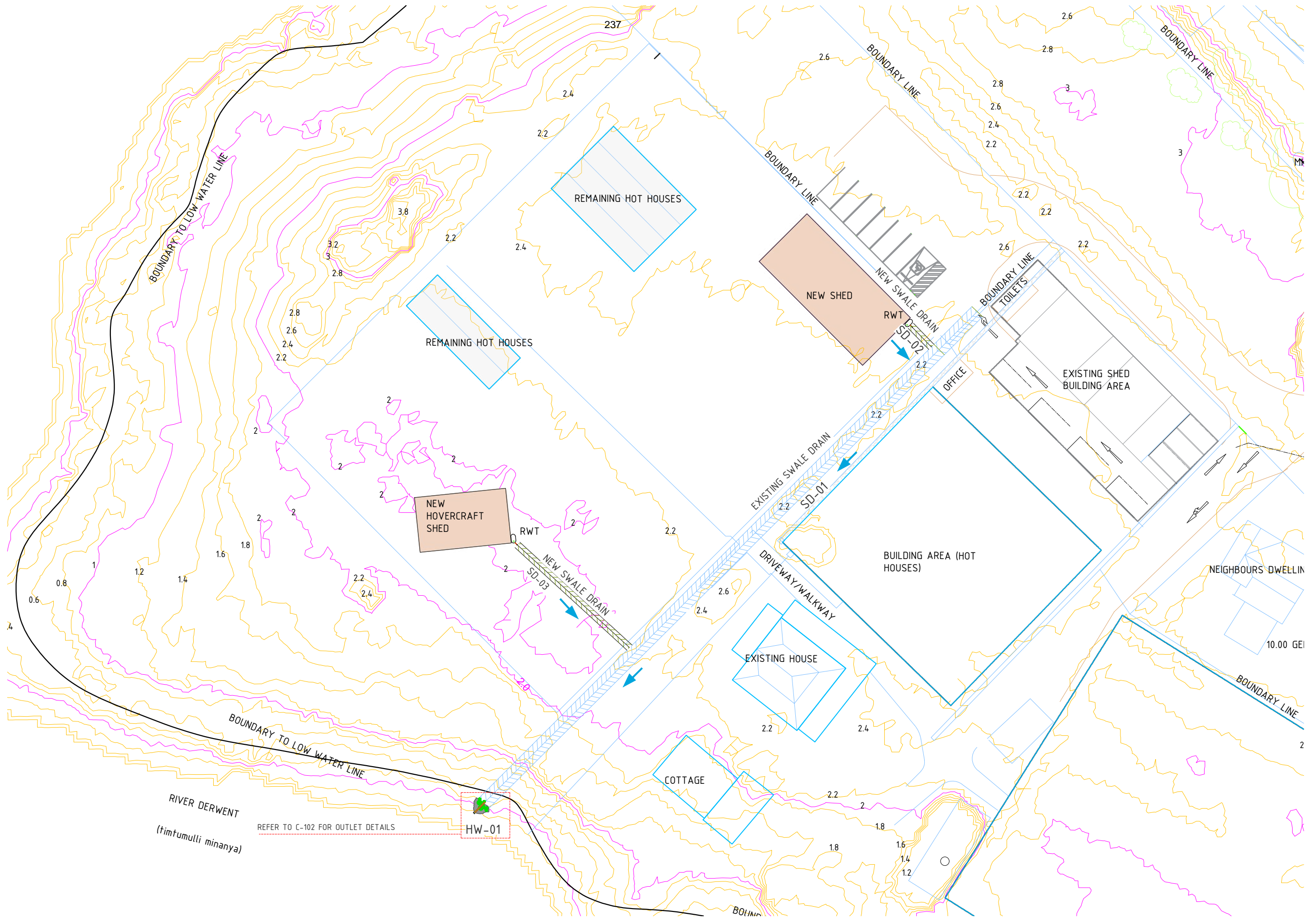
Flüssig Spatial was engaged by the developer of 7 Wallace Street, Bridgewater for the purpose of a site-specific stormwater management plan as per the Brighton Interim Planning Scheme 2015. This study is deemed suitable for purpose at the time of undertaking the study. If conditions of the subdivision change, the plan will need to be reviewed against all changes.

This report is to be used in full and may not be used in part to support any other objective other than what has been outlined within, unless specific written approval to do otherwise is granted by Flüssig Spatial.

Flüssig Spatial accepts no responsibility for the accuracy of third-party documents supplied for the purpose of this stormwater management plan.

Appendices

Appendix A: FS_HBO_2059-Stormwater Concept Plan and Details REV01



LEGEND

STORMWATER FLOW DIRECTION

EXISTING CONTOURS

NEW DETENTION RAIN WATER TANK

RWT

STORMWATER PLAN
SCALE 1:500

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STATUS:	PRELIMINARY		

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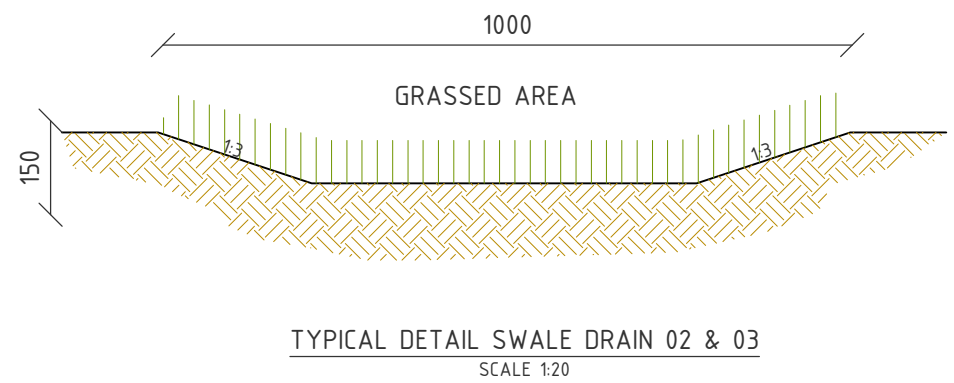
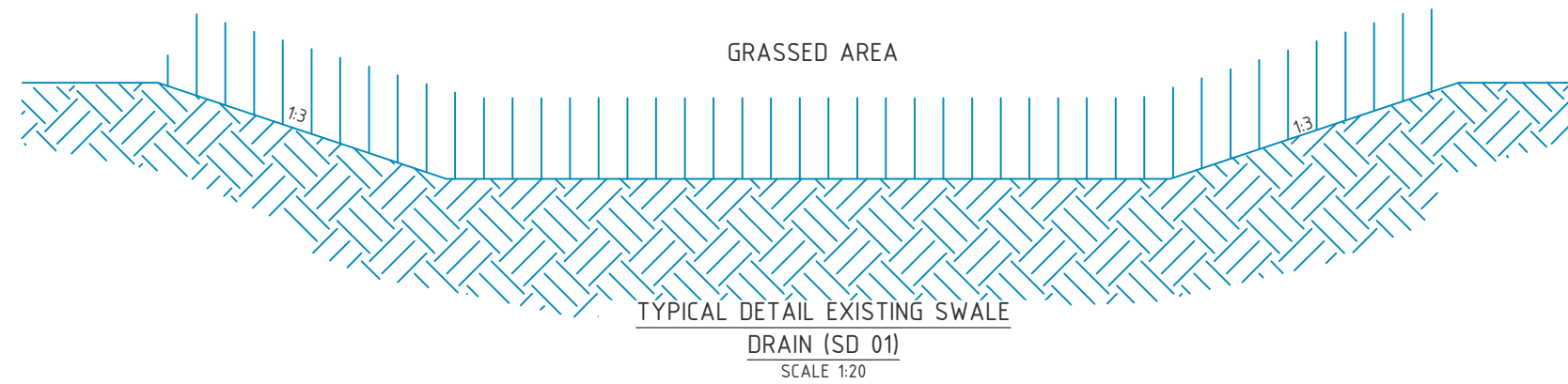
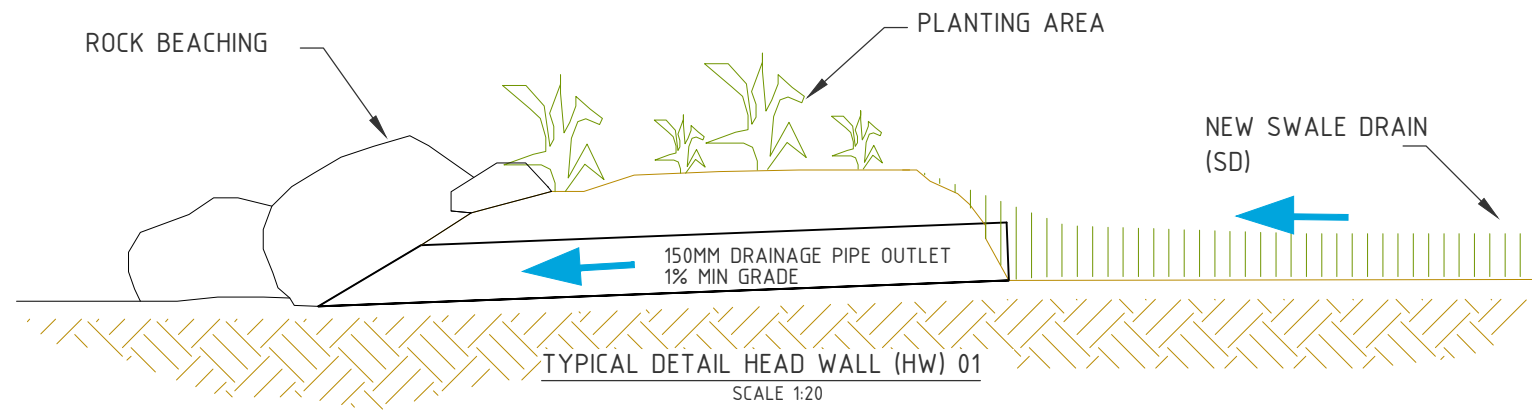
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PROJECT:
7 WALLACE ST BRIDGEWATER 7030, PROPOSED STORMWATER PLAN

SITE: 7 WALLACE ST BRIDGEWATER 7030			
TITLE: STORMWATER CONCEPT PLAN			
SCALE AT A3: 1:500	DATE: 26.11.2020	DRAWN: DH	CHECKED: MM
PROJECT NO: FS_HOB_2059	DRAWING NO: C-101	REVISION:	01



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STATUS: PRELIMINARY			

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CLIENT: BRETT AND KATHLEEN MILLER	PROJECT: 7 WALLACE ST BRIDGEWATER 7030, PROPOSED STORMWATER PLAN		
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SITE: 7 WALLACE ST BRIDGEWATER 7030			
TITLE: TYPICAL DETAILS			
SCALE AT A3: 1:20	DATE: 26.11.2020	DRAWN: DH	CHECKED: MM
PROJECT NO: FS_HOB_2059	DRAWING NO: C-1001	REVISION: 01	



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Brett and Kathleen Miller
7 Wallace Street, Pleasure Boat
Facility Development
Traffic Impact Assessment
January 2021



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1. Introduction

1.1 Background

Midson Traffic were engaged by Brett and Kathleen Miller to prepare a traffic impact assessment for a proposed pleasure boat facility, aquaponics development and children's party hire venue development at 7 Wallace Street, Bridgewater.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *A Framework for Undertaking Traffic Impact Assessments*, September 2007. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management, Part 12: Traffic Impacts of Developments*, 2019.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This report also addresses the relevant clauses of E5, *Road and Railway Assets Code*, and E6, *Parking and Access Code*, of the Brighton Interim Planning Scheme, 2015.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *A Framework for Undertaking Traffic Impact Assessments*, September 2007, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 25 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006

- Master of Traffic, Monash University, 2004
- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 7 Wallace Street, Bridgewater. The existing use of the site is Resource Development and General Residential. This consisted of hothouses and accompanying outbuildings that produced tomatoes on a large commercial enterprise. The resource development business had been run down and no longer operated on a sustainable level.

The subject site and surrounding road network is shown in Figure 1.

Figure 1 Subject Site & Surrounding Road Network



Image Source: LIST Map, DPIIWE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Brighton Interim Planning Scheme, 2015 (Planning Scheme)
- Austroads, *Guide to Traffic Management, Part 12: Traffic Impacts of Developments*, 2019
- Austroads, *Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections*, 2017
- Department of State Growth, *A Framework for Undertaking Traffic Impact Assessments*, 2007
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, *Updated Traffic Surveys*, 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1)
- Australian Standards, AS2890.2, *Off-Street Commercial Vehicle Facilities*, 2002 (AS2890.2)

2. Existing Conditions

2.1 Transport Network

For the purpose of this report, the transport network consists of Boyer Road, Wallace Street, the Derwent Valley railway line and the South Line railway.

2.1.1 Boyer Road

Boyer Road is a State Growth owned road that connects between the Midland Highway in Bridgewater and Rocks Road in New Norfolk along the eastern shore of the Derwent River. Under the Tasmanian Road Hierarchy, Boyer Road is categorised as an "Other Road" which is defined as follows:

"Other Roads are primarily access roads for private properties.

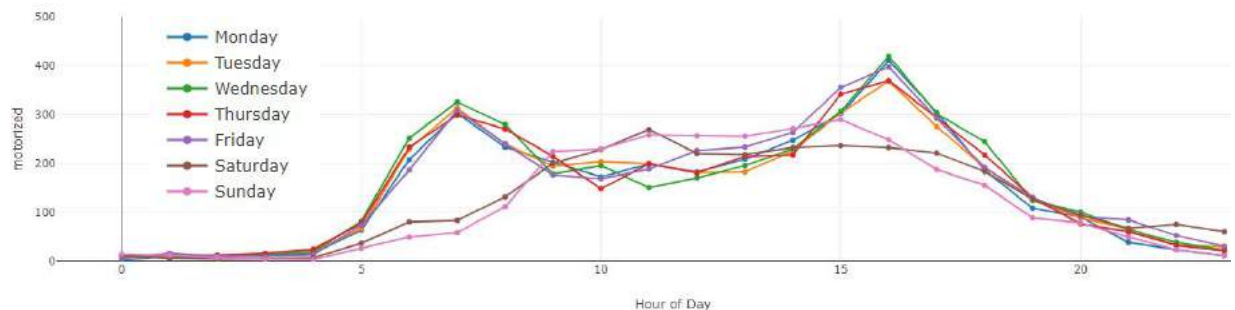
Some may be used for comparatively low frequency heavy freight vehicle transport, for example:

- *Log transport – but they are not the most important log transport roads and experience fluctuation in use; and*
- *Farm property access – for purposes including delivery of fuel and supplies, stock transport, crop delivery and milk pickup.*

While a few of these roads may currently carry larger numbers of heavy freight vehicles, they may duplicate existing Trunk, Regional Freight or Regional Access Roads and are not DIER's strategically preferred heavy freight vehicle routes."

Boyer Road currently carries 3,300 vehicles per day¹ near the subject site, with a peak flow of approximately 400 vehicles per hour (PM peak). The hourly distribution of traffic flow on Boyer Road west of Sorell Street is shown in Figure 2.

Figure 2 Boyer Road Hourly Traffic Flow



¹ Department of State Growth traffic data, November 2018

Boyer Road connects to Main Road at a roundabout with a mountable central island. A railway level crossing is located in Boyer Road north of the subject site. The railway crossing is controlled by lights.

Boyer Road near the railway crossing is shown in Figure 3.

Figure 3 Boyer Road



2.1.2 Wallace Street

Wallace Street is a local access road that connects to Boyer Road at a four-way junction with Sorell Street located opposite Wallace Street. It provides access to 7 properties along its length (including the subject site).

Wallace Street crosses the Derwent Valley Railway Line and the South Line at level railway crossings.

Wallace Street near the subject site is shown in Figure 4. The intersection of Wallace Street with Boyer Road is shown in Figure 4.

Figure 4 Wallace Street near Subject Site



Figure 5 Wallace Street/ Boyer Road Intersection



2.1.3 Derwent Valley Railway Line

The Derwent Valley Line connects between Maydena and Bridgewater along the western and northern side of the Derwent River. The railway has been closed north of New Norfolk since 1995.

The railway line is currently operated by Pacific National.

The section of the Derwent Valley Line that crosses Wallace Street is no longer in operation. The crossing is shown in Figure 6.

Figure 6 Wallace Street Derwent Valley Line Crossing



2.1.4 South Line Railway

The South Line is a freight rail corridor connecting Hobart to Tasmania's northern ports. The South Line connects with the Derwent Valley Line immediately to the north of the Boyer Road level crossing.

The South Line level crossing at Boyer Road is shown in Figure 3 and the South Line level crossing at Wallace Street is shown in Figure 7.

Figure 7 Wallace Street South Line Crossing



2.2 Road Safety Performance

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a five-year period between 1st January 2016 and 31st December 2020 for the full length of Wallace street. Only one crash was reported during this time. This crash occurred at 7:05PM on 29th September 2016 at the intersection of Wallace Street and Boyer Road. The crash involved two vehicles in a 'cross-traffic' collision and resulted in first aid at the scene.

3. Proposed Development

3.1 Development Proposal

The proposed development is a Pleasure Boat Facility (hovercraft). Some of the hothouses are to remain and a similar pursuit of sustainable aquaponics (incorporating the existing swimming pool) is to be setup in a new commercial enterprise (used for aquaponics on a significantly reduced scale from the previous operations). There are no agricultural uses on adjoining land.

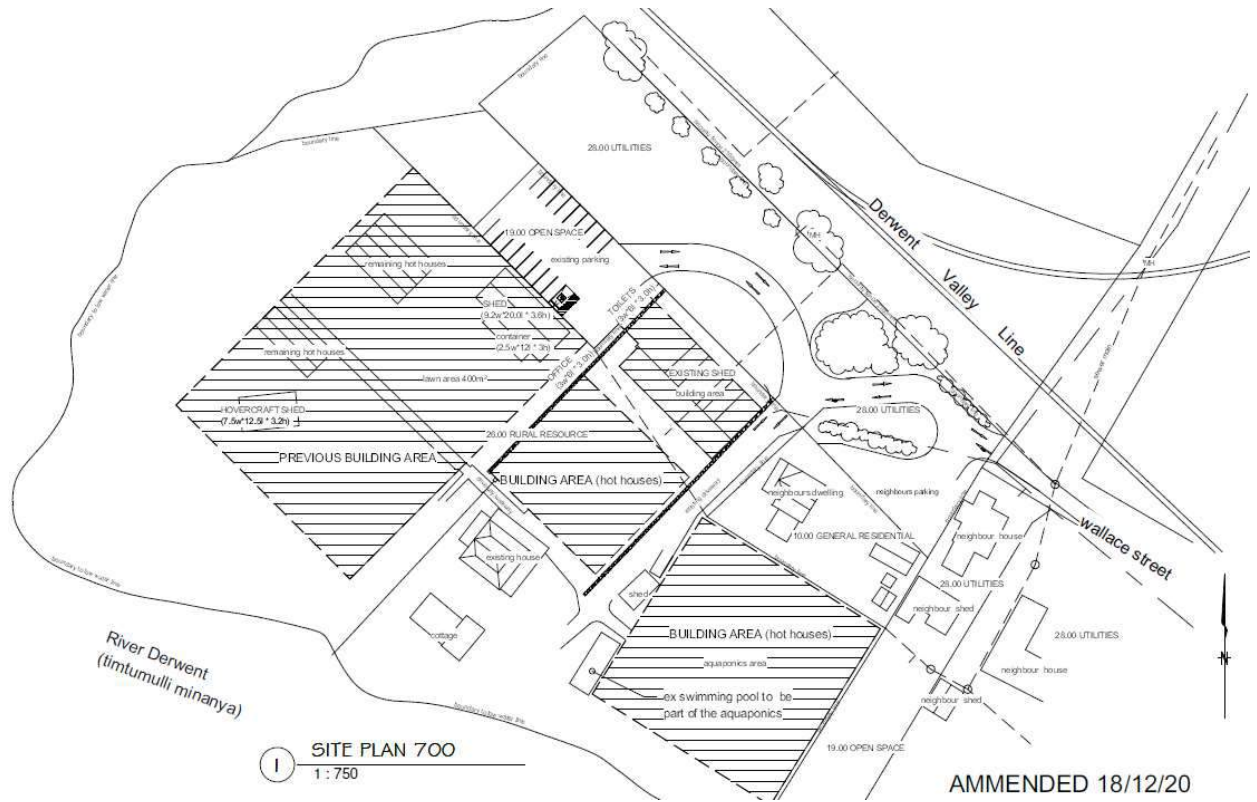
The pleasure boat facility carries a maximum 12 people (including 2 staff and 10 guests) for a two-hour turnaround. The maximum number of trips during peak times will be four per day. A total of 40 guests per day will therefore access the facility (over an eight hour period).

The use of a 12-seater minibus is proposed for hotel pick up and drop off to service.

A children's party hire business is also proposed for the site. The activities include bumper cars, inflatable castles and slide, and tractor swing. Parties will cater for group bookings of up to 10 children (not open to the general public). This component will operate several times per week. The minibus will be used to collect children who are local to the area. This will reduce traffic generation for the children's party hire component of the development.

The proposed development layout plans are shown in Figure 8.

Figure 8 Proposed Development Plans



4. Traffic Impacts

4.1 Traffic Generation

Traffic generation was calculated from first principles.

4.1.1 Previous Use Traffic Generation

The previous use of the site was resource development. The previous operations associated with the hot houses employed more than twenty people when in full production and the road and access was frequently used by commercial vans picking up produce for delivery.

On this basis the traffic generation of the previous use of the site when in full operation is estimated to be 60 two-way vehicle movements per day. The peak generation was likely to be 20 vehicles per hour.

4.1.2 Proposed Development Traffic Generation

Pleasure boat facility

The hovercraft associated with the development has a maximum occupancy of 12 people, which includes 2 crew. During peak operations the proposed pleasure boat facility will cater for up to 40 people per day (4 sessions with 10 guests per session). As a worst-case scenario, if all customers arrive by car the total traffic generation will be 40 vehicles per day (assuming that the average occupancy is 2 people per car and 1 inward and 1 outward trip per car).

Additional movements associated with management of the facility are likely to increase the total traffic generation to approximately 44 vehicles per day.

The peak traffic volume is likely to be 8 vehicles per hour consisting of 4 inward and 4 outward trips.

It is noted that the use of a 12-seater minibus will reduce the traffic generation significantly. When used extensively the traffic generation will be approximately 12 vehicle trips per day with a peak of 2 vehicles per hour.

Party Hire Facility

The children's party hire facility will operate several times per week. With up to 10 children arriving by car the traffic generation is likely to be 10 trips (assuming 2 children per car and one inward and one outward trip per event). If two children's parties are held in one day the traffic generation is likely to be 20 trips per day. The peak generation is likely to be 10 vehicles per hour.

It is noted that the minibus will be used to transport children who are local to the area to and from the party hire facility. This will reduce traffic generation when parties are hired that utilise the minibus service.

Aquaponics Facility

The aquaponics operations will have up to four staff. The traffic generation of this component of the development is likely to be 12 vehicles per day. The peak generation is likely to be 4 trips per hour.

Total development traffic generation

The total traffic generation is likely to vary between 28 and 76 vehicles per day. The peak generation is likely to be up to 22 vehicles per hour.

4.1.3 Net Change in Traffic Generation

The proposed development is likely to have a reduction of traffic generation compared to the previous use of the site the majority of the time (ie. when children's party hire events are not scheduled or the use of the minibus exceeds the use of private car transport).

On days when all three components of the development occur simultaneously the traffic generation may be up to 16 vehicles per day greater than the previous use of the site.

4.2 Trip Distribution

All traffic will access the site via Wallace Street and Boyer Road.

4.3 Traffic Generation Impacts

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme states "*The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater*".

In this case the development generally will have a lower traffic generation than the previous use of the site except during times when all components of the development are operating concurrently. Under these circumstances the development will not generate more than 40 vehicle movements per day more than the previous use of the site (40 vehicle movements is greater than 20% of 60 movements).

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme is therefore met.

4.4 Access Impacts

The Acceptable Solution A2 of Clause E5.6.2 states "*No more than one access providing both entry and exit, or two accesses providing separate entry and exit, to roads in an area subject to a speed limit of 60km/h or less*".

The development proposes one entry on Wallace Street (existing access) and therefore meets the requirements of the Acceptable Solution A2 of Clause E5.6.2 of the Planning Scheme.

4.5 Sight Distance

The Acceptable Solution A1 of Clause E5.6.4 states "*Sight distances at an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1*".

The requirements of Table E5.1 are reproduced in Table 1.

Table 1 Planning Scheme Sight Distance Requirements

Vehicle Speed	Safe Intersection Sight Distance (S.I.S.D) in metres, for speed limit of:	
	60 km/h or less	Greater than 60 km/h
50	80	90
60	105	115
70	130	140
80	165	175
90		210
100		250
110		290

The General Urban Speed limit of 50-km/h applies to Wallace Street however the 85th percentile speed is lower due to the dead-end nature of the road. The minimum SISD value provided in Table E5.1 is 80 metres. The available sight distance exceeds 80-metres at the access with Wallace Street.

The Acceptable Solution A1 of Clause E5.6.4 of the Planning Scheme is met.

4.6 Access Design

The Acceptable Solution A1 of Clause E6.7.2 of the Planning Scheme states: "*Design of vehicle access points must comply with all of the following: (a) in the case of non-commercial vehicle access; the location, sight distance, width and gradient of an access must be designed and constructed to comply with section 3 – "Access Facilities to Off-street Parking Areas and Queuing Areas" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking; and (b) in the case of commercial vehicle access; the location, sight distance, geometry and gradient of an access must be designed and constructed to comply with all access driveway provisions in section 3 "Access Driveways and Circulation Roadways" of AS2890.2 - 2002 Parking facilities Part 2: Off-street commercial vehicle facilities"*.

The site will accommodate non-commercial vehicles (cars) and commercial vehicles (minibus associated with the pleasure craft component and small trucks associated with the aquaponics component).

4.6.1 Non-Commercial Vehicle Access

The design of the vehicle access complies with the following AS2890.1 access requirements:

- **Access width** – the car park is classified as Class 2². The access width requirements for Class 2, accessing less than 25 spaces, fronting onto a local road³, is 3.0 to 5.5 metres combined entry and exit. The access widths (combined entry and exit) comply with these requirements.

² AS2890.1 defines Class 2 as "Long-term city and town centre parking, sports facilities, entertainment centres, hotels, motels, airport visitors (generally medium-term parking)".

³ AS2890.1 defines 'local road' as "a road or street used primarily for access to abutting properties". This classification also includes 'collector road' for the purpose of access width design.

- Access gradient – the gradient between the edge of the frontage road and the property line is effectively level. The grades of the access driveway does not exceed AS2890.1 maximum gradient of 20% and therefore comply with AS2890.1 requirements.
- Sight distance – AS2890.1 requires a minimum of 45 metres sight distance at a domestic property access (desirable minimum requirement is 69 metres) for a frontage road speed of 50-km/h. This sight distance is available, therefore complying with AS2890.1 requirements.

4.6.2 Commercial Vehicle Access

The proposed development will cater for commercial vehicles in the form of:

- Minibus for the pleasure craft component.
- Vans and utility vehicles associated with the aquaponics component.

AS2890.2 requires that the service area is dependent on a combination of:

- (a) The maximum size of vehicle likely to use the facility.
- (b) The frequency with which vehicles of different classification use the facility; and
- (c) Whether the public road from which the facility is accessed is a major or minor road.

The following points are relevant for the site:

- a. The maximum size of a vehicle using the access is a minibus. The access caters for a minibus and dedicated minibus parking is provided on-site.
- b. The frequency of use of the access will be up to 10 times per day when the minibus is utilised as the only vehicle associated with the pleasure craft facility.
- c. Access into the site is via a minor road. This access is existing and has been in use for many years for similar sized vehicles without issue.

The access is therefore deemed to meet the requirements of AS2890.2.

4.6.3 Access Design Summary

The design of the vehicle access points complies with the requirements of AS2890.1 and AS2890.2, therefore Acceptable Solution A1 of Clause E6.7.2 is met.

4.7 Pedestrian Impacts

The proposed development is well connected to the surrounding road network's pedestrian infrastructure. Road verges on Wallace Street provide pedestrian connectivity to Boyer Road. Footpaths are provided along both sides of Boyer Road.

The proposed development will generate a relatively small amount of pedestrian activity. These pedestrian movements can be accommodated safely and efficiently in the network.

4.8 Railway Level Crossing Impacts

The existing railway level crossing of the South Line/ Derwent Valley Line is a passive crossing. Existing signage is in place on both approaches to the crossing (consisting of "Railway Crossing", "Stop" signage, and "Look for Trains").

The existing railway level crossing was investigated from a risk management perspective. The following is relevant:

- The traffic generation of the proposed development will similar to the previous use of the site when it was Resource Development Use. Most days the traffic generation will be lower than the previous use. Traffic generation will only be slightly greater than the previous use when all components of the site are operational simultaneously and the minibus is not in use (estimated to be approximately 16 additional vehicles per day).
- Wallace Street is a dead-end road with very low traffic volumes (estimated to be less than 100 vehicles per day). Wallace Street will not have traffic growth into the future.
- The existing railway level crossing is clear and obvious for vehicles approaching the crossing. It is likely that the majority of vehicles approaching the crossing will originate from Boyer Road/ Old Main Road. An active railway level crossing is located on Boyer Road which is located approximately 65 metres from the Wallace Street crossing. It is therefore likely that vehicles approaching the site on this approach will be stopped at the Boyer Road active crossing, or will be able to safely cross the Wallace Street passive crossing prior to the passage of a train (as the short travel distance on this approach would almost certainly require a vehicle to stop at the Boyer Road crossing if a train were approaching, or have sufficient clearance if not stopped at the Boyer Road active crossing).
- The Boyer Road active crossing is visible on the northbound Wallace Street approach to the passive crossing. Site investigations indicate that the audible warning signs of the Boyer Road approach are clear and obvious on the Wallace Street approach.
- Vehicle approaching Wallace Street from the western approach of Boyer Road will be clearly able to view the Boyer Road active crossing prior to entering the Wallace Street junction. The distance travelled on this approach to the Wallace Street passive crossing is similar to the distance to the Boyer Road active crossing and therefore the amount of warning provided will be similar. In the event of a train approaching, vehicles would observe the activation of the Boyer Road crossing prior to entering Wallace Street.
- The use of a minibus to transfer visitors of the pleasure water craft development will reduce the traffic generation of the site, as well as provide a level of driver familiarity with the crossing.

Based on the above assessment, no upgrade to the crossing is considered necessary. It is recommended that line marking on the approaches to the passive railway crossing be reinstated to further enhance the presence of the crossing.

4.9 Road Safety Impacts

No significant adverse road safety impacts are foreseen for the proposed development. This is based on the following:

- There is sufficient spare capacity in Wallace Street and Boyer Road to absorb the relatively small peak hour traffic generated from the proposed development (16 trips per hour).
- The access to the site has been in use for many years without issue.
- The existing road safety performance of the road network near the subject site does not indicate that there are any specific road safety deficiencies that might be exaggerated by the small increase in traffic volume.
- There is adequate sight distance from the access for the prevailing vehicle speeds on Wallace Street in accordance Planning Scheme and AS2890.1 requirements.

5. Parking Assessment

5.1 Parking Provision

The proposed development will provide a total of 19 on-site car parking spaces. This includes 1 disabled parking space.

A dedicated minibus parking space is provided.

5.2 Planning Scheme Requirements

The Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme states "*The number of on-site car parking spaces must be no less than the number specified in Table E6.1*".

Table E6.1 states that the parking requirements are "*subject to a traffic and parking assessment*" for 'pleasure boat facility' land use. The parking requirements for 'resource development' is no requirement under Table E6.1.

Using first principles the following is relevant:

- Assuming all pleasure craft guests arrive by car with an average occupancy of 2 guests per car, the parking requirement is 5 cars. With some overlap between guest departures and guest arrivals, the peak parking demand is likely to be less than 8 cars. Staff parking is likely to be required for two cars.
- The resource development component of the development (whilst not having a requirement under Table E6.1) is likely to require 4 parking spaces (1 for each staff).
- The childrens party component of the development is likely to require up to 5 cars.
- The total parking requirement is up to 19 cars if all parking demands peak simultaneously. The provision of 19 parking spaces will therefore cater for parking demands associated with the development.

The parking provision therefore meets the requirements of Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme.

5.3 On-Site Turning

The Acceptable Solution A1 of Clause E6.7.4 of the Planning Scheme states:

"On-site turning must be provided to enable vehicles to exit a site in a forward direction, except where the access complies with any of the following:

- (a) *it serves no more than two dwelling units;*
- (b) *it meets a road carrying less than 6000 vehicles per day".*

In this case all vehicles can enter and exit the site in a forward motion (noting that the site meets a road that carries significantly less than 6,000 vehicles per day). The Acceptable Solution A1 of Clause E6.7.4 of the Planning Scheme is met.

5.4 Car Parking Layout

The Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme states: "*The layout of car parking spaces, access aisles, circulation roadways and ramps must be designed and constructed to comply with section 2 "Design of Parking Modules, Circulation Roadways and Ramps" of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking and must have sufficient headroom to comply with clause 5.3 "Headroom" of the same Standard*".

The Australian Standards, AS2890.1 requires the following minimum dimensions for User Class 2:

- Aisle width 2.5 metres
- Space length 5.4 metres
- Aisle width 5.8 metres

All spaces comply with these dimensional requirements and therefore the Acceptable Solution A1 of Clause E6.7.5 of the Planning Scheme is met.

6. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed pleasure boat facility and aquaponics development at 7 Wallace Street, Bridgewater.

The key findings of the TIA are summarised as follows:

- The traffic generation of the proposed development is likely to be up to be between 28 and 76 vehicles per day with a peak of up to 22 vehicles per hour. The traffic generation will typically be less than the previous use of the site when it was a resource development (agriculture) site, but will exceed the traffic generation of the previous use by up to 16 vehicles per day when all components of the development are operating simultaneously.
- The existing South Line passive railway level crossing in Wallace Street is deemed to be safe for the low traffic volumes utilising the crossing. Line marking on the approaches to the passive level crossing should be reinstated to reinforce the presence of the crossing.
- The provision of 19 on-site car parking spaces meets the requirements of Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme.

Based on the findings of this report and subject to the recommendations above, the proposed development is supported on traffic grounds.

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Document Status

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	16 January 2021

**Avifauna assessment of the impact of a proposed hovercraft
operation in the River Derwent Conservation Area,
Bridgewater to New Norfolk, Tasmania**



**Prepared for
Flying Tigers Hovercraft Adventure**

**by G. Barry Baker
June 2020**

Avifauna assessment of the impact of a proposed hovercraft operation in the River Derwent Conservation Area, Bridgewater to New Norfolk, Tasmania

Executive Summary

This report presents the findings of an avifauna assessment to document whether any species listed on the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* or on Tasmania's *Threatened Species Protection Act 1995 (TSP Act)* are likely to occur on a section of the Derwent River between Bridgewater and New Norfolk (the 'site') which is the site of a proposed operation of a 12 seat hovercraft.

A desktop assessment was undertaken, building on the knowledge of the author who has previously conducted bird surveys in the River Derwent Marine Conservation Area that encompasses the site of the proposed activity. A total of 85 species of birds (native and introduced) were found to have been recorded at the site. Eleven of these species are listed as matters of environmental significance under the EPBC Act or as threatened under the TSP Act — Australasian bittern, Crested tern, Great crested grebe, Great egret, Kelp gull, Pacific gull, Silver gull, Swift parrot, Grey goshawk, Tasmanian wedge-tailed eagle and White-bellied sea-eagle.

This assessment concluded that the proposed operation is unlikely to detrimentally impact the 11 bird species. Most of these species are common and/or likely to occur only occasionally in the area of the proposed hovercraft operation. One species, the Australasian bittern, is an endangered species that is likely resident in the area. It is a cryptic species that favours reedbed habitats. The proposed hovercraft activity will avoid the favoured reedbed habitats of this species, which should ensure the species continues to thrive in the upper Derwent River valley. This assessment is supported by the continual presence of Australasian bitterns at the site over the last 10 years, despite regular use of the waterway by powerboat enthusiasts that launch and use vessels in the Murphys Flat Conservation Area and have a greater environmental footprint in terms of noise and nature of their operation. It is also recommended that the hovercraft commander reduces speed when flocks of birds are visible on the water, and avoids unpredictable movements of the craft to minimise high intensity disturbance stimulus to birds.

1. Introduction

Latitude 42 Environmental Consultants Pty Ltd (Latitude 42) were contracted by Brett Miller of Flying Tigers Hovercraft Adventure (hereafter referred to as "Flying Tigers") to assess the impact on bird species of the operation of a 12 seat hovercraft within the River Derwent Marine Conservation Area from a property at

Wallace Avenue, Bridgewater to the town of New Norfolk ('the site'). At the time this report was prepared, Flying Tigers was seeking approval from the Tasmanian Parks and Wildlife Service (TasParks), Department of Primary Industries, Parks, Water and Environment (DPIPWE), to undertake the proposed activity.

The proposed activity comprises launching the hovercraft from a residential block at 7 Wallace Street (Title reference: CT 199710/1) which has frontage to the northern bank of the Derwent River near Bridgewater (Figure 1, GES 2020).



Figure 1. Hovercraft launch site, 7 Wallace Street, Bridgewater, Tasmania, outlined in red. Map extracted from The List and annotated by Geo-Environmental Solutions Pty Ltd (GES 2020).

Once deployed the hovercraft, an Air Vehicles Tiger 12, max cruising 30 knots, will proceed along the centre of the Derwent River west to Boyer (near New Norfolk) before returning by the same route (Figure 2). The Air Vehicles Tiger 12 hovercraft was manufactured in 1985 by Air Vehicles, Isle of Wight, and is one of the quietest hovercraft ever manufactured, emitting 62dB at full power (<http://www.jameshovercraft.co.uk/hover/tiger12.php>). The purpose of the activity is to provide joy rides, with the vehicle continually moving and not stopping. While air-cushion vehicles like hovercraft are capable of travelling over land, water and other surfaces, the proposed activity will be restricted to the Derwent River waterway, except when being launched at Bridgewater.

The site occurs within the Derwent River Marine Conservation Area, one of a number of Marine Conservation Areas that form part of the Bruny bioregion. The Bruny bioregion has a low tidal range and a strongly dissected coastline with extensive bays protected from swell by islands and peninsulas. It has the highest level of marine endemism in Tasmania. The area was proclaimed a conservation area under the Nature Conservation Act 2002 on 9 December 2009. This reserve class provides for the protection and maintenance of the natural and cultural values of the area and the sustainable use of natural resources.

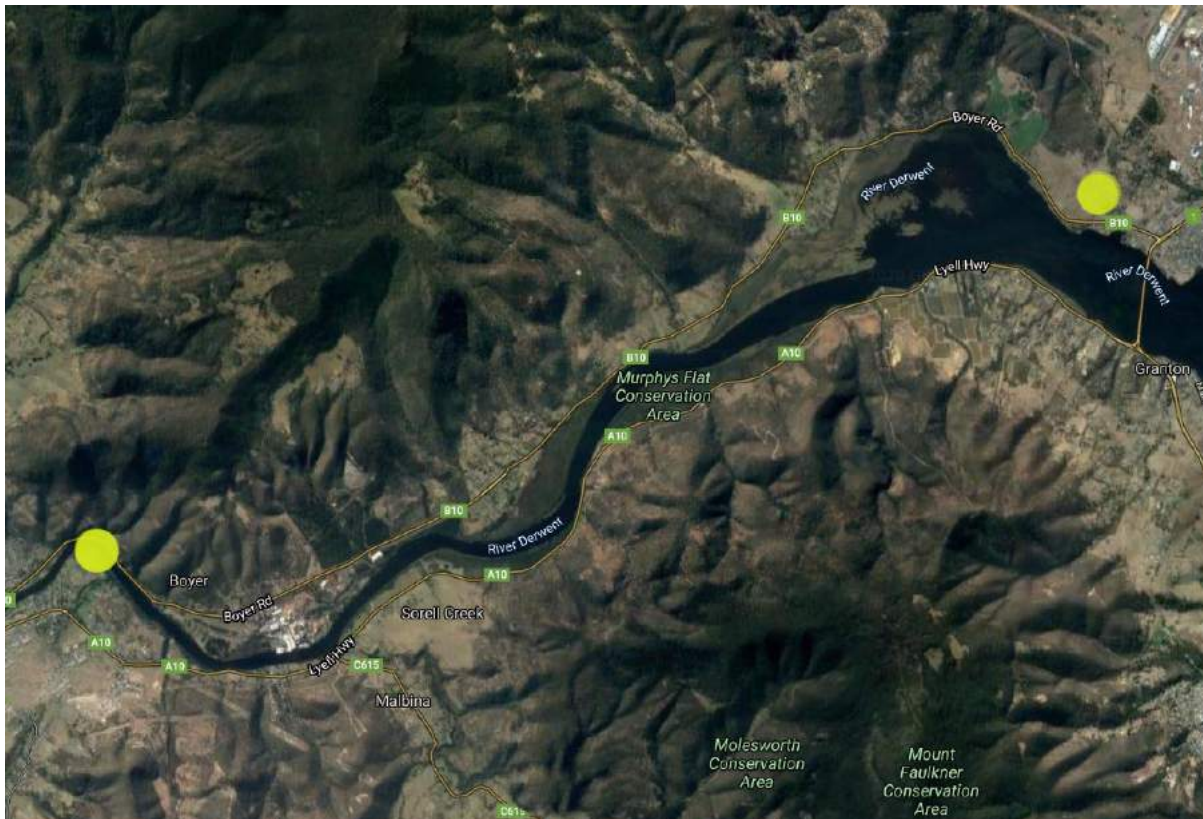


Figure 2. Derwent River, showing the proposed area of operation for Flying Tigers Hovercraft Adventure. Hovercraft tours will commence from west of Bridgewater bridge (RHS yellow circle) and proceed along the centre of the Derwent River west to Boyer (LHS yellow circle) before returning by the same route. The hovercraft route will avoid areas of natural reedbed vegetation.

The River Derwent MCA lies between New Norfolk in the west and Dogshear Point in the east. The reserve area contains habitat for migratory wading birds, black swans, ducks, crabs, platypus, frogs, snakes, fish, and a diversity of invertebrates. (<https://parks.tas.gov.au/explore-our-parks/marine-reserves/marine-conservation-areas#RiverDerwen%E2%80%8Bt%C2%A0%3Cbr%3E>). This report focusses on birds only.

The reserve area in the River Derwent was first proclaimed a "sanctuary with respect to black swans" on 4 March 1920 under the Animals and Birds Protection Act 1919. In 1941 the original proclamation was

revoked and replaced with a new proclamation under the Animals and Birds Protection Act 1928 declaring the area a "sanctuary for birds generally". The motivation for changing the proclamation was to protect all birds in the reserve particularly native ducks which were being hunted in the reserve. There is currently no statutory management plan for the River Derwent Conservation Area.

Adjacent to the Derwent River Marine Conservation Area is Murphys Flat Conservation Area, an area of 66 hectares, approximately 2.7 kilometres long and 550 metres wide at its maximum width. It is located within a wetland complex on the southern shore of the River Derwent beside the Lyell Highway between Granton and New Norfolk. The area is recognised as being particularly species rich, with expansive areas of marshes, underwater grasses, tidal flats and reed beds that provide habitat and breeding areas for large populations of fish, platypus and waterfowl (Parks and Wildlife Service 2010).

Murphys Flat Conservation Area comprises 25 to 30 per cent of the remaining wetlands in the River Derwent. It is listed within both the Directory of Wetlands of National Significance and the Tasmanian Geoconservation Database. Birds are particularly abundant in the reserve due largely to the diverse habitat. The vicinity is well known for its large population of black swans and is a likely hunting and foraging area for five significant bird species including the wedge-tailed eagle, white-bellied sea-eagle, swift parrot, masked owl, great crested grebe, as well as the secretive Australasian bittern (Parks and Wildlife Service 2010).

The purpose of this assessment is to identify avifauna species that may occur between the private land at Bridgewater and along the Derwent River to as far west as New Norfolk (the site), with a focus on identifying species that may be of conservation significance and which may affect future development and/or use of the site. This report presents the findings of the avifauna assessment, based on a desktop review and site visit, which aimed to:

- document whether any species listed on the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* or on Tasmania's *Threatened Species Protection Act 1995 (TSP Act)* are likely to occur on the private land at Bridgewater and along the Derwent River between Bridgewater and New Norfolk (hereinafter '**the site**');
- assess the avifauna values of the site; and
- provide a list of bird species, particularly species protected by legislation, which may occur or are known to occur along the river corridor.

2. Methods

Desktop assessment

There was an overall paucity of general and scientific information for the site of the proposed activity, particularly records for the distribution and abundance of birds. Consequently, the desktop assessment entailed searches of bird species potentially using the the site by accessing the following databases and online tools:

- the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* Protected Matters Search Tool (hereafter referred to as **PMST**) (DAWE 2020), a search of the species or species habitats that are known to occur, likely to occur or may occur on the site of the proposed activity with both a 1 km and a 5 km buffer. This search tool determines whether matters of national environmental significance or other matters protected by the *EPBC Act* are likely to occur in the area of interest but the information is indicative only and local knowledge and information should be sought where possible (DAWE 2020);
- Tasmania's *Threatened Species Protection Act 1995 (TSP Act)* Natural Values Atlas (hereafter referred to as **NVA**) (DPIPWE 2020), a search of the species or species habitat that are known to occur or have the potential to occur on the site with a 500 m and a 5 km buffer. The NVA is Tasmania's comprehensive database for flora and fauna information including threatened species and contains information and locations on more than 20,000 species from Tasmania (DPIPWE 2011);
- BirdLife Australia's *Birdata* database, formerly the online tool for entering data into the Atlas of Australian Birds (BirdLife Australia 2020) (hereafter referred to as '**Birdata**'), which has been developed and maintained by BirdLife Australia, a non-government organisation dedicated to the conservation of Australian birds. *Birdata* is one of the largest continent-wide, wildlife databases in the world. It aims to collect and disseminate data to benefit the conservation of Australia's birds and their habitats through the use of structured monitoring methods, principally by using 2 ha, 20 minute counts at multiple sites, or through less-rigorous 500 m searches. It contains more than ten million records from over 600,000 surveys and is continuously updated with additional surveys accumulating at the rate of 700–1000 per week (BirdLife Australia unpublished data). The Atlas data have been collected in a standardised manner for over 20 years through a well-established network of volunteers. A search of these data (BirdLife Australia 2020) was undertaken based on a polygon drawn around the area of the site with a 1 km buffer, which encompasses the River Derwent and riparian vegetation between the Bridgewater Bridge New Norfolk.

Threatened species categories

A flora or fauna species is described as threatened if it is at risk of becoming extinct through a range of factors that may be natural or human induced. Species may be listed under the Commonwealth *EPBC Act* and/or the Tasmanian *TSP Act*. The *EPBC Act* categorises species into:

- i. Extinct;
- ii. Extinct in the wild: species that can no longer be found in the wild, but still exist in captivity;
- iii. Critically Endangered: species in extreme danger of becoming extinct in the immediate future;
- iv. Endangered: species in danger of extinction, while the factors causing them to be endangered continue operating;
- v. Vulnerable: species which are at risk of becoming endangered;
- vi. Conservation Dependent: species whose survival is dependent on conservation activities.

In addition species can be listed as ‘migratory’ species (listed under one or more of the following international migratory agreements: the Japan – Australia Migratory Birds Agreement (JAMBA), the China – Australia Migratory Birds Agreement (CAMBA), the Republic of Korea – Australia Migratory Birds Agreement (ROKAMBA), or the Convention on Migratory Species (CMS)) or as ‘marine’ species.

Species in the Critically Endangered, Endangered and Vulnerable categories are considered ‘threatened species’.

The *TSP Act* categorises threatened species into:

- i. Endangered: species is in danger of extinction because long-term survival is unlikely while factors causing it to be endangered continue operating. Within this category a species may be *presumed extinct* if it has not been recorded in the wild within the past 50 years;
- ii. Vulnerable: species likely to become endangered while factors causing it to be vulnerable continue operating;
- iii. Rare: species that have a small population or distribution within Tasmania that is not endangered or vulnerable but is at risk.

Limitations of desktop assessment

There are limitations when species lists are derived from database searches such as those described above. In particular, searches may:

- include species that have been recorded in the specified buffer zone (e.g. a 1 km radius) on only one or two occasions;
- include species that are vagrant and have been recorded at the site but are not normally residents i.e. vagrants can be recorded almost anywhere;
- include species that are now locally extinct but still appear because these databases are historic records;
- include species that have specific habitat requirements that may be present in the surrounding region but not on the actual site;
- include species that have complex life histories or are not well understood, so that deciding whether they frequent the site or are vagrants is difficult;
- result in database lists that are underwritten by observations from spatially or temporally limited surveys such that unsubstantiated observations can appear as fact; and/or,
- result in an amalgamation of long-term observations so that an area can appear to have a more diverse fauna than is actually present from year to year.

As a consequence of the above limitations, some species included in the lists produced from database searches may not be present on the site. However, in the absence of data obtained from systematic surveys of species at the site, database searches are an invaluable tool for producing species lists for a particular location.

No systematic on-ground surveys across the entire site were undertaken which could validate the database records because of travel restrictions imposed by the Tasmanian government's response to the COVID-19 pandemic. However, the Derwent River Marine Conservation Area and Murphys Flat Conservation Area are well known to the author, who is familiar with the bird fauna of the area, conducted surveys within the reserves, and has contributed data to BirdLife Australia's *Birdata* database.

Hovercraft operational considerations

With respect to above water noise changes and visual disturbance, it is very difficult to separate out the relative contribution of noise and visual stimuli in causing a disturbance response to birds due to hovercraft and the available literature generally makes no distinction (Natural England 2017 and references therein). Therefore, these pressures are reviewed collectively, and the potential impacts outlined below are drawn from experiences in the United Kingdom (Natural England 2017).

Studies have found that birds generally show similar disturbance responses to hovercraft as other vessels (Brooks 2014, cited in Natural England 2017). However, unlike other vessels, hovercraft are not constrained to just the water column. This allows them to operate in very shallow water inaccessible to other craft and also in areas of exposed soft sediment intertidal habitat (such as mudflat, sandflat or gravel)

which can be inaccessible on foot. Waterbirds foraging or roosting within these habitats are therefore particularly vulnerable to potential hovercraft disturbance (Natural England 2017). All of these concerns are not relevant to this assessment as the proponent is intending to conduct all operations in the centre of the river and avoiding sensitive waterbird habitats such as reedbeds and the shoreline.

In general, regular and defined human movements are less disturbing than erratic and random movements to waterbirds (Smit & Visser 1993, cited in Natural England 2017). In this respect, recreational hovercraft often produce high speed, unpredictable movements and subsequently a relatively high intensity disturbance stimulus. Research in the United Kingdom found that birds reacted with a flight response of distances between 75 and 500 m from a hovercraft, with some species appearing particularly sensitive (e.g. ducks), which took flight when the craft was up to 500m away while other species appeared less sensitive (e.g. swans and gulls which remained within 100m of the craft (MacCallum 2014; Gaál 2014, cited in Natural England 2017). In general, the primary responses observed are likely to include increased vigilance, avoidance walking and flight responses. The level of response will vary depending on a range of factors including the frequency of disturbance and the level of habituation as a result of existing activity. Repetitive disturbance events can result in possible long-term effects such as loss of weight, condition and a reduction in reproductive success, leading to population impacts (Natural England 2017).

3. Results and Discussion

Based on the results of the database searches, a total of 85 species of birds (native and introduced) have been recorded on or within 1 km of Derwent River Marine Conservation Area and Murphys Flat Conservation Area. This includes 70 species obtained from the *Birdata* database (BirdLife Australia 2020), and an additional 15 species obtained from another database, BirdLife Tasmania, and the NVA and/or PMST searches (Table 1). Data for the Derwent River Marine Conservation Area was excellent, with 42 structured surveys undertaken and reported to Birdata within the last 10 years. Some of these surveys will have encompassed the Murphys Flat Conservation Area, and there was a further four dedicated surveys for that area.

Included in the 85 species are 11 that are listed as matters of environmental significance under the EPBC Act or as threatened under the TSP Act. These are:

Australasian bittern	Kelp gull	Grey goshawk
Crested tern	Pacific gull	Tasmanian wedge-tailed eagle
Great crested grebe,	Silver gull	White-bellied sea-eagle
Great egret	Swift parrot	

Of these, the following six species have been discounted due to the reasons explained below:

- ***Crested tern*** is a listed migratory species that was detected only three times in 46 structured surveys. It is common and primarily a coastal species that rarely ventures far inland or along rivers. There are no conservation concerns for the species and the proposed activity is unlikely to impact the tern unfavourably.
- ***Great crested grebe*** is listed as Endangered under the TSP Act, but nationally is not threatened. It breeds on freshwater wetlands with a combination of open water for feeding and aquatic vegetation for building and anchoring the nest. When not breeding it favours large deep freshwater bodies with clear water and fish, but also will congregate on large saline lakes (Menkhorst et al. 2017). It was not recorded in structured surveys and is likely an occasional visitor. The proposed activity is unlikely to impact this species unfavourably.
- ***Great egret, kelp gull, Pacific gull*** and ***silver gull*** are all listed as Migratory and/or Marine Species on the *EPBC Act*. They are all common species and considered nationally to be ‘Least Concern’ (Garnett et al. 2011). Great egret and Pacific gull were recorded only once in 46 structured surveys and are uncommon along this section of the Derwent River. Kelp and silver gulls were more commonly reported in surveys but are unlikely to breed in the area. It is considered that the proposed activity will not impact any of these four species.

All of the other Tasmanian or Commonwealth listed species identified by the above processes are discussed below.

Australasian bittern: Listed as Endangered on the *EPBC Act*. The Australasian Bittern is a large, stocky, thick-necked, heron-like bird. The species grows to a length of 66–76 cm, has a wingspan of 1050-1180 cm, and weighs 0.9–1.4 kg. Garnett et al. (2011) suggested there were less than 1000 mature Australasian Bitterns within the Australian population, and that the population was likely declining. The Australasian Bittern occurs mainly in freshwater wetlands. It favours wetlands with tall dense vegetation, where it

forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds or cutting grass growing over a muddy or peaty substrate. The diet includes aquatic animals such as small fish, frogs, freshwater crayfish, spiders, insects and small reptiles (TSSC 2019).

Suitable habitat for this species occurs at the proposed development site, principally around the Murphys Flat area, although birds may occur elsewhere in the Derwent River Marine Conservation Area. Reporting rate from the *Birdata* surveys was low (1/46, 2%) but the species is highly cryptic and detection probability in general surveys is low unless species-specific detection techniques are employed. BirdLife Tasmania has 11 records for the last 10 years, with birds occurring in January, March, April, June, September and October—hence the species may be present all year, although it is known to be migratory elsewhere (TSSC 2019).

Regular disturbance of birds is likely to be detrimental to their persistence in the Derwent Valley, so it is recommended that all vessels traversing the river contain activities to deeper water and avoid reedbeds. Doing this, as the proposed hovercraft operation is intending, will ensure the species is not impacted by the proposed activity.

Swift parrot: Listed as Critically Endangered on the *EPBC Act* and Endangered on the *TSP Act*. The swift parrot is a small, fast-flying, nectarivorous parrot. It has a single, migratory population and occurs predominantly in eucalypt forest in south-eastern Australia. It breeds only in Tasmania between September and January each year where it forages primarily on the flowers of blue gum (*Eucalyptus globulus*) and black gum (*E. ovata*) (Webb et al. 2012). It arrives from mainland Australia across Bass Strait in August/September and migrates back north to mainland Australia in March/April (Saunders and Tzaros 2011). The swift parrot is usually seen in small groups of up to 30 birds. Swift parrots were not detected in any of the 46 structured *Birdata* surveys, indicating they do not frequent the site regularly, but there is a single record in the BirdLife Tasmania database. There is no evidence, based on site visits, to indicate that the site contains important foraging or roosting habitat for this species, particularly along the Derwent River site and the record may have been of a bird flying over the site. Swift parrots are not an aquatic species and the proposed activity will not impact the parrot.

Grey goshawk: Listed as Endangered on the *TSP Act* but nationally 'Least Concern' (Garnett et al. 2011). This raptor typically has a large home range and would occur in the Derwent River valley and likely hunt in riparian vegetation. However, it is not an aquatic species is unlikely to be impacted by the operations of a hovercraft.

Tasmanian wedge-tailed eagle (*Aquila audax fleayi*): Listed as Endangered under the *EPBC Act* and the *TSP Act*. As for the grey goshawk, eagles occur in the Derwent River valley but their reporting rate (1/46 surveys, RR 2%) was low, indicating they only occasionally hunt in the riparian vegetation of the Derwent

River from time to time. The Tasmanian wedge-tailed eagle is not an aquatic species and is unlikely to be impacted by the operations of a hovercraft.

White-bellied sea-eagle: Listed as Vulnerable on the *TSP Act* and Migratory and Marine on the *EPBC Act*. Survey data showed low reporting rates at the site (2/46, RR 4%), indicating this highly visible raptor uses the site only occasionally. While sea-eagles will snatch prey from the water they are not generally to be an aquatic species, and they are unlikely to be threatened by the proposed activity.

4. Summary

This desktop assessment revealed that 11 Commonwealth or State listed bird species occur along the section of the River Derwent River Marine Conservation Area and Murphys Flat Conservation Area in which the proponent is intending to run a hovercraft operation. The proposed operation is unlikely to detrimentally impact these bird species. Of most concern is the Australasian bittern. The proposed activity will avoid the favoured reedbed habitats of this species, which should ensure the species continues to thrive in the upper Derwent River valley. This assessment is supported by the continual presence of Australasian bitterns at the site over the last 10 years, despite regular use of the waterway by powerboat enthusiasts that launch and use vessels in the Murphys Flat Conservation Area.

It is also recommended that the hovercraft be operated in a way that reduces speed when flocks of birds are visible on the water, and unpredictable movements of the craft are avoided to minimise high intensity disturbance stimulus.

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Table 1. Bird species recorded as occurring in a search of the BirdLife Australia *Birdata* database (BirdLife Australia 2020), together with reporting rates (RR). The search area was defined by a polygon drawn around the section of the River Derwent between the Bridgewater Bridge to New Norfolk and included a 1 km buffer along the river corridor. Records cover the 10-year period January 2010 — May 2020. Also shown are incidental records for species not detected in Birdata surveys, provided by BirdLife Tasmania (unpublished data, used with permission).

EPBC Act status: VU = Vulnerable, EN = Endangered, CR = Critically Endangered, EX = Presumed Extinct, M = migratory, Ma = marine.

TSP Act status: R = rare, VU = vulnerable, EN = endangered, X = presumed extinct.

Common Name	Scientific Name	Data source	EPBC status	TSP Act status	Derwent River RR (n=42)	Murphys Flat RR (n=4)	Comment
Australasian bittern	<i>Botaurus poiciloptilus</i>	Birdata, BirdsTas	EN			0.25	cryptic species, 11 records over last 10 years
Australasian grebe	<i>Tachybaptus novaehollandiae</i>	BirdsTas					
Australasian pipit	<i>Anthus novaeseelandiae</i>	Birdata			0.02	0.25	
Australasian shoveler	<i>Spatula rhynchotis</i>	Birdata			0.10	0.25	
Australian magpie	<i>Gymnorhina tibicen</i>	Birdata			0.02		
Australian pelican	<i>Pelecanus conspicillatus</i>	Birdata			0.12	0.25	
Australian shelduck	<i>Tadorna tadornoides</i>	BirdsTas					
Australian white ibis	<i>Threskiornis molucca</i>	BirdsTas					
Australian wood duck	<i>Chenonetta jubata</i>	Birdata			0.02		
Beautiful firetail	<i>Stagonopleura bella</i>	BirdsTas					
Black currawong	<i>Strepera fuliginosa</i>	Birdata			0.02		
Black swan	<i>Cygnus atratus</i>	Birdata			0.48	1.00	
Black-faced cormorant	<i>Phalacrocorax fuscescens</i>	Birdata			0.07		
Black-faced cuckoo-shrike	<i>Coracina novaehollandiae</i>	Birdata			0.05		
Black-headed honeyeater	<i>Melithreptus affinis</i>	Birdata			0.12		
Blue-winged parrot	<i>Neophema chrysostoma</i>	Birdata			0.02	0.25	
Brown falcon	<i>Falco berigora</i>	Birdata			0.05	0.25	

Common Name	Scientific Name	Data source	EPBC status	TSP Act status	Derwent River RR (n=42)	Murphys Flat RR (n=4)	Comment
Brown goshawk	<i>Accipiter fasciatus</i>	Birdata			0.02		
Brown thornbill	<i>Acanthiza pusilla</i>	Birdata			0.05		
Brush bronzewing	<i>Phaps elegans</i>	BirdsTas					
Chestnut teal	<i>Anas castanea</i>	Birdata			0.19	0.50	
Common blackbird	<i>Turdus merula</i>	Birdata			0.26	0.25	
Common bronzewing	<i>Phaps chalcoptera</i>	BirdsTas					
Common greenfinch	<i>Chloris</i>	Birdata			0.02		
Common starling	<i>Sturnus vulgaris</i>	Birdata			0.24	0.75	
Crescent honeyeater	<i>Phylidonyris pyrrhopterus</i>	Birdata			0.10	0.25	
Crested tern	<i>Thalasseus bergii</i>	Birdata	Ma		0.07	0.25	Listed migratory species; occasional visitor to site
Dusky woodswallow	<i>Artamus cyanopterus</i>	Birdata			0.14	0.25	
Eastern rosella	<i>Platycercus eximius</i>	BirdsTas					
Eurasian coot	<i>Fulica atra</i>	Birdata			0.33	0.50	
European goldfinch	<i>Carduelis</i>	Birdata			0.14	0.50	
Flame robin	<i>Petroica phoenicea</i>	BirdsTas					
Forest raven	<i>Corvus tasmanicus</i>	Birdata			0.33	0.25	
Galah	<i>Eolophus roseicapilla</i>	Birdata			0.02	0.25	
Golden whistler	<i>Pachycephala pectoralis</i>	Birdata			0.02		
Great cormorant	<i>Phalacrocorax carbo</i>	Birdata			0.12	0.50	
Great crested grebe	<i>Podiceps cristatus</i>	BirdsTas		EN			Not recorded in structured surveys, likely occasional visitor
Great egret	<i>Ardea alba</i>	Birdata	M, Ma		0.02		Listed migratory species; occasional visitor to site
Green rosella	<i>Platycercus caledonicus</i>	Birdata			0.17		

Common Name	Scientific Name	Data source	EPBC status	TSP Act status	Derwent River RR (n=42)	Murphys Flat RR (n=4)	Comment
Grey butcherbird	<i>Cracticus torquatus</i>	Birdata			0.07	0.25	
Grey currawong	<i>Strepera versicolor</i>	Birdata			0.10		
Grey fantail	<i>Rhipidura fuliginosa</i>	Birdata			0.24	0.25	
Grey goshawk	<i>Accipiter novaehollandiae</i>	BirdsTas		EN			Not an aquatic species, unlikely to be impacted by development
Grey shrike-thrush	<i>Colluricincla harmonica</i>	Birdata			0.12		
Grey teal	<i>Anas gracilis</i>	Birdata			0.07	0.50	
Hardhead	<i>Aythya australis</i>	Birdata			0.02	0.25	
Hoary-headed grebe	<i>Poliiocephalus poliocephalus</i>	Birdata			0.14	0.50	Irregular migrant, visitor or vagrant
House sparrow	<i>Passer domesticus</i>	Birdata			0.31	0.75	
Kelp gull	<i>Larus dominicanus</i>	Birdata	Ma		0.29	0.25	Listed migratory species; non-threatened bird
Laughing kookaburra	<i>Dacelo novaeguineae</i>	Birdata			0.07		
Little black cormorant	<i>Phalacrocorax sulcirostris</i>	Birdata			0.36	0.75	
Little egret	<i>Egretta garzetta</i>	Birdata			0.02		
Little grassbird	<i>Megalurus gramineus</i>	BirdsTas					
Little pied cormorant	<i>Microcarbo melanoleucos</i>	Birdata			0.31	0.75	
Little wattlebird	<i>Anthochaera chrysoptera</i>	Birdata			0.10		
Masked lapwing	<i>Vanellus miles</i>	Birdata			0.21	0.50	
Musk duck	<i>Biziura lobata</i>	Birdata			0.12	1.00	
Musk lorikeet	<i>Glossopsitta concinna</i>	Birdata			0.02		
New Holland honeyeater	<i>Phylidonyris novaehollandiae</i>	Birdata			0.24		
Noisy miner	<i>Manorina melanocephala</i>	BirdsTas					

Common Name	Scientific Name	Data source	EPBC status	TSP Act status	Derwent River RR (n=42)	Murphys Flat RR (n=4)	Comment
Northern mallard	<i>Anas platyrhynchos</i>	Birdata			0.05		
Pacific black duck	<i>Anas superciliosa</i>	Birdata			0.21	1.00	
Pacific gull	<i>Larus pacificus</i>	Birdata	Ma		0.02		Listed migratory species; non-threatened bird
Purple swamphen	<i>Porphyrio porphyrio</i>	Birdata			0.02		
Rainbow lorikeet	<i>Trichoglossus haematodus</i>	BirdsTas					
Scarlet robin	<i>Petroica multicolor</i>	Birdata			0.10		
Silver gull	<i>Chroicocephalus novaehollandiae</i>	Birdata	Ma		0.21	0.75	Listed migratory species; non-threatened bird
Silvereye	<i>Zosterops lateralis</i>	Birdata			0.14	0.25	
Spotless crane	<i>Porzana tabuensis</i>	BirdsTas					
Spotted pardalote	<i>Pardalotus punctatus</i>	Birdata			0.07		
Spotted turtledove	<i>Streptopelia chinensis</i>	BirdsTas					
Striated pardalote	<i>Pardalotus striatus</i>	Birdata			0.12		
Sulphur-crested cockatoo	<i>Cacatua galerita</i>	Birdata			0.02		
Superb fairy-wren	<i>Malurus cyaneus</i>	Birdata			0.50	0.25	
Swamp harrier	<i>Circus approximans</i>	Birdata			0.10		
Swift parrot	<i>Lathamus discolor</i>	BirdsTas	CR	EN			No suitable habitat in development area; not an aquatic species, unlikely to be impacted by development
Tasmanian native-hen	<i>Tribonyx mortierii</i>	Birdata			0.33	0.75	
Tree martin	<i>Petrochelidon nigricans</i>	Birdata			0.07		
Wedge-tailed eagle	<i>Aquila audax</i>	Birdata	EN	EN	0.02		Not an aquatic species, unlikely to be impacted by development

Common Name	Scientific Name	Data source	EPBC status	TSP Act status	Derwent River RR (n=42)	Murphys Flat RR (n=4)	Comment
Welcome swallow	<i>Hirundo neoxena</i>	Birdata			0.07		
White-bellied sea-eagle	<i>Haliaeetus leucogaster</i>	Birdata	M, Ma	VU	0.02	0.25	Not an aquatic species, unlikely to be impacted by development
White-faced heron	<i>Egretta novaehollandiae</i>	Birdata			0.07		
Yellow wattlebird	<i>Anthochaera paradoxa</i>	Birdata			0.21	0.25	
Yellow-rumped thornbill	<i>Acanthiza chrysorrhoa</i>	Birdata			0.05		
Yellow-tailed black-cockatoo	<i>Zanda funereus</i>	Birdata			0.12		
Yellow-throated honeyeater	<i>Nesoptilotis flavicollis</i>	Birdata			0.19	0.25	

PWS Reserve Activity Assessment - Level 2 to 4



Activity Title: Flying Tigers Hovercraft Adventure, River Derwent Marine Conservation Area

RAA No. 3644

RAA Administration and Tracking

Important Dates and Information

Date RAA drafting commenced:	07/07/2020	RAA Checklist approved:	23/09/2020
Date RAA circulated for comment:	PWS I/C	Decision required by:	ASAP
Return comments on RAA to	Matt Lindus, RIC, Seven Mile Beach Field Centre		
PWS Cost Centre (if assigned)	N/A		

Step 1. Activity Summary

This step states the details of the proposed activity. Enough information must be provided so that someone unfamiliar with the activity will gain a clear idea of what is involved and where the activity will occur. Use the Maplink, Natural Values Atlas and PWS Site Register reports to help in filling out this step (see RAA Manual).

1.1 Contact Details (who)

Initiating Organisation	Freycinet Hover Explorer Pty Ltd, trading as Flying Tigers Hovercraft Adventure		
Initiating Person	Brett Miller	Phone contact:	0403719180
Initiating Person Email	millerbrettk@hotmail.com		
Initiating Person Address	7 Wallace Street, Bridgewater ,7030 ,TAS		
PWS Contact Officer	Matt Lindus	Phone contact:	61079211
PWS Contact Officer Email	Matthew.lindus@parks.tas.gov.au		

1.2 Location Information (where)

Location of Activity	River Derwent from 7 Wallace Street Bridgewater to New Norfolk.		
Reserve Name & Tenure	River Derwent Marine Conservation Area		
Grid Ref (GDA): Easting	518164E	Northing	5268237N
PWS Field Centre	Seven Mile Beach	PWS Region	Southern
AMS/RSF Site Number	SSSMB39556	AMS/RSF Site Name	River Derwent MCA
Map. Number (1:25000)	5026	Map Name (1:25000)	New Norfolk

1.3 Description (what)

Operation of a 12 seat Hovercraft within the River Derwent Marine CA from 7 Wallace Street, Bridgewater up to New Norfolk (30 minute stop in New Norfolk) & return (approx. 1.5 hour tour), the flight will transit via the centre of the River Derwent & stay to the North of Murphys Flat Conservation Area (Attachment 1)

A local 20 minute "Joy Ride" in local area of Hovercraft Base at 7 Wallace Street Bridgewater (Attachment 2)

Note: operations from SE corner of 7 Wallace Street, Bridgewater with rights to low water mark (Attachment 3). There is no vegetation around the proposed alighting area (Attachment 4). For transit onto the water there are reeds on the waters edge however due to the nature of Hovering on a cushion of air, no blades or propellers protruding underneath to cut into anything it travels over, minimal or no damage can be expected. Hovercraft can hover over eggs without cracking them.

(Also of interest, I have videos (YouTube links are : <https://youtu.be/2fcOt3DGofM> & <https://www.youtube.com/watch?v=OYOpe-d-QQ8>) of much noisier Hovercraft travelling at speed in close proximity to water birds on the water with no reaction from the birds, just empathising the Eco qualities of this type of craft & suitability for environmentally sensitive areas.)

1.4 Objective/s and Outcome/s Sought

Provide a unique experience of flying in the World's quietest commercial Hovercraft & demonstrating the diverse capabilities of this craft. Give passengers the opportunity of experiencing this magnificent area & its associated Fauna, Flora & History from a different perspective in a comfortable & exciting way. Our aim is for passengers to walk away with a memorable experience & share with family & friends the beauty & diversity of this region.

1.5 Outputs or Products

Operating a 12 seater Air Vehicles Tiger 12 Hovercraft. AMSA survey 2D. AMSA Certificate of Competence with associated SMS (Attachment 5). Experienced Master operating Hovercraft. Quietest commercial Hovercraft in World at 62 dB at max power. Minimal footprint, equivalent to Sea Gull standing on one foot & less than tidal impact. Hovercraft used in environmental sensitive area's around the world by relevant authorities due to low environmental impact & footprint.

We will give commentary on local points of interest & concern i.e.:

- Endangered avifauna such as the Australasian Bittern, Swift Parrot, Grey Goshawk, Tasmanian Wedge Tail Eagle & White-bellied sea eagle.
- 85 different bird breeds in region.
- Aboriginal interest site
- New Norfolk & historic points of interest.

Pick up from Hovercraft on arrival New Norfolk public wharf or slipway by 12 seat minibus for New Norfolk town tour, supporting local business. Drop off at Hovercraft 30 to 45 minutes later for return trip to Bridgewater.

Also offering 20 minute joy rides on the River Derwent in front of Hovercraft Base at 7 Wallace Street, Bridgewater.

Venture will provide much needed employment in a low socio-economic area.

It will be a drawcard for visitors & Tourists to the Area & therefore other businesses in the area will also benefit.

1.6 Evaluation (How will you know if the objectives/outcomes have been achieved?)

With Social media so prevalent in our society, we will pay attention to comments & get a good indication how things are progressing & also feedback from our customers. So we will be evaluating daily & evolving our Business to suit. It is a commercial venture, so obviously if we do not make a profit, we would be failing.

1.7 Need (why)

Showcase & educate the public on our unique & fragile environment, highlighting the River Derwent history as well. Provide local employment. Create a drawcard for the area so other businesses will also prosper.

1.8 Timetable (when)

As soon as this application & DA by Brighton Council have been approved we are ready to operate.

1.9 Summary of Environmental Benefits and Adverse Impacts (summary Use the [Maplink report to assist here](#))

Help educate the public & bring awareness of Fauna & Flora of the region in a unique & environmental friendly vessel.

As can be seen from the attached Avifauna assessment (Attachment 6), there will be no or minimal adverse impacts on Flora & Fauna habitats. The 62 dB emitted from the Hovercraft at max power will only be temporary as once the Hovercraft is on the Hover power is reduced. A lawn mower emits 90dB by comparison. The proposed Hovercraft alighting zone is set back at least 100m from neighbour's residential properties, so noise will not be an issue. We will transit to New Norfolk via the centre of the River Derwent and to the North of Murphys Flat Conservation area on the River Derwent therefore minimising any disturbance to sensitive areas, if we encounter flocks of birds enroute we will reduce speed.

1.10 Summary of Cultural and Social Benefits and Adverse Impacts (summary)

Help educate the public on the History of the region, both Indigenous & European settlement. Provide a unique opportunity to fly in a Hovercraft & learn how it works. Provide a different mode of transport from Bridgewater to New Norfolk. Our departure point from 7 Wallace Street Bridgewater is from a 5.5 acre property on a private peninsula, at least 100m from nearest neighbours. So noise & any visual impact will be minimal. On arrival into New Norfolk, the 5kts speed limit will again result in minimal impact, low power (low noise). The enroute part of the journey is in the centre of River Derwent & again noise & visual impact are minimised. The 20 minute joy rides planned to operate immediately in front of our property will be a transit straight out to centre of the River Derwent (the river is very wide at our location) & then carry out manurvers & return to our property. Again noise will not be an issue due to area of operation & visual impact minimal due to the relatively small size of Hovercraft.

Ski Club operates sometimes, so normal boating protocol & right of way rules will apply. I have a Marine radio which can be used to communicate with traffic or ski base (otherwise mobile phone). I will only transit through the ski area when clear to do so & only for a short time. I will work with the Ski Club as they did with the previous Jet Boat operator based out of New Norfolk to resolve any issues that may arise.

1.11 Summary of Economic Benefits and Adverse Impacts (summary)

Provide a major Tourism drawcard for the area. Provide employment in the low socioeconomic area of Bridgewater, initially casual labour but as Business establishes & grows, these will become full time employment positions. Flow on effects to surrounding local business, food, beverage, retail etc. in the Brighton Shire from our visiting customers.

New Norfolk town tours will benefit local business there, also Mini Bus driver is employed. We will also offer pick-up & drop off to Hobart venues (including Cruise Terminal) return to Bridgewater using a 12 seat Mini Bus.

Local mechanic has our service contract for Hovercraft maintenance & company Mini Bus service. Buy from local fuel stations for Diesel fuel.

We can only see positive benefits for the region. There is no other water operators offering a service from Bridgewater to New Norfolk. We will offer a unique environmently friendly experience that will benefit the Community economically.

No adverse impacts that can be forseen but if an issue should arise, we would address it immediately.

1.12 Alternatives (other ways)

Explain the other options that were considered to meet your outcome/s and cost and why they were not preferred? State why the preferred option is supported. (Attach additional information if necessary at part 1.13)

Options		Comments
Do nothing	Yes at this stage.	Solid, viable & only practical solution for my Hovercraft operation. Own to low water mark therefore easy access to river.

		Protected waterways compared to more open coastal areas, therefore more opportunity to operate due to Hovercraft wind/sea limits. Low water traffic density, almost non-existent. Maintenance facility on Base. Picturesque environment people will want to see. All positive reasons to stick with current proposal.
Eliminate	N/A	Proponent
Isolate/Substitute	N/A	Proponent
Engineer	N/A	Proponent
Administrative	N/A	Proponent
Preferred Option	N/A	Proponent

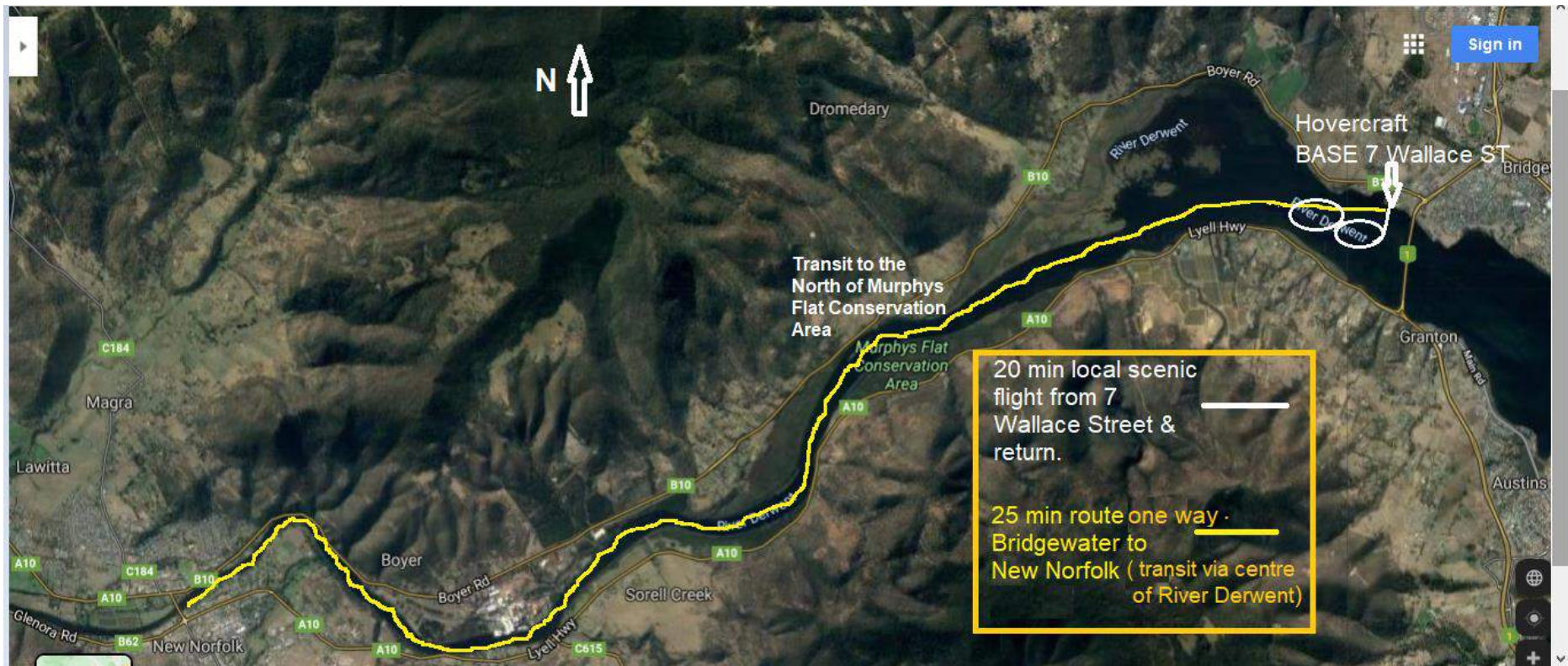
1.13 Attachments

No.	Description/Details of Attachment eg. maps, photos, reports
1	Proposed route to New Norfolk & return
2	Proposed 20 minute Joy Ride route
3	7 Wallace Street Bridgewater Hovercraft Base
4	Photo's of water entry site at bridgewater
5	Tiger 12 Hovercraft picture
6	Avifauna Assessment
7	Coastal Vulnerability Assessment
8	AH7774 Site Recording Form
9	Freycinet Hover Explorer Pty Ltd Safety Management Plan (Draft)
10	

1.14 Third Party Description and Interest in the Activity

Myself & wife Kathleen Miller are the only directors of Freycinet Hover Explorer Pty Ltd, a family business. DA in with Brighton Council as we also require approval from them to operate from 7 Wallace Street, Bridgewater. Aboriginal Heritage Council have done a desktop review of this property & found a middens site discovered in 1997 (no evidence exists today of any shells) but our proposed operation will not damage that site in any case (see attached site plan & photo's).

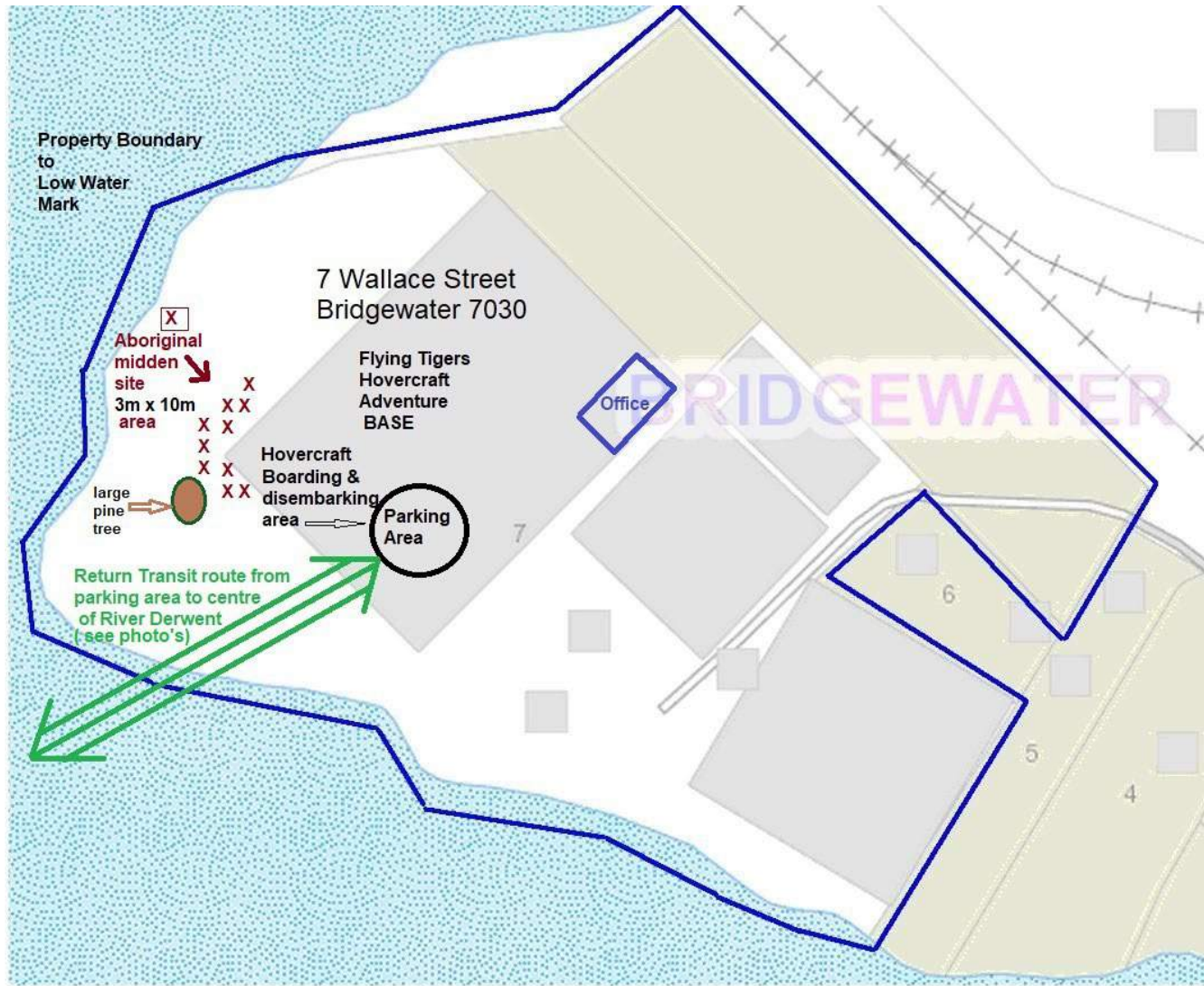
RAA 3644 - Attachment 1 - Tour Route



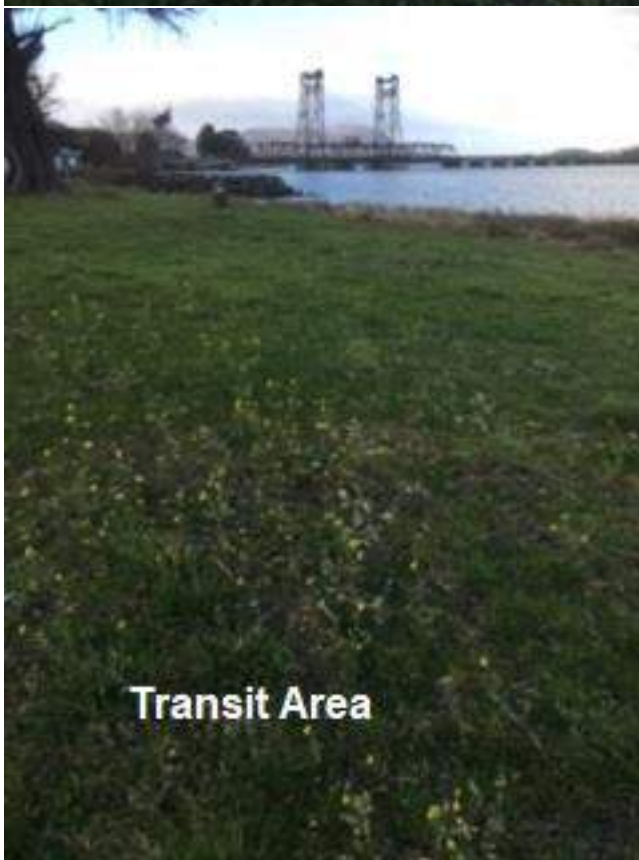
RAA 3644 - Attachment 2 - Short Tour



RAA 3644 – Attachment 3 -7 Wallace Street, Bridgewater



RAA 3644 – Attachment 4 - Photos of water entry site at Bridgewater

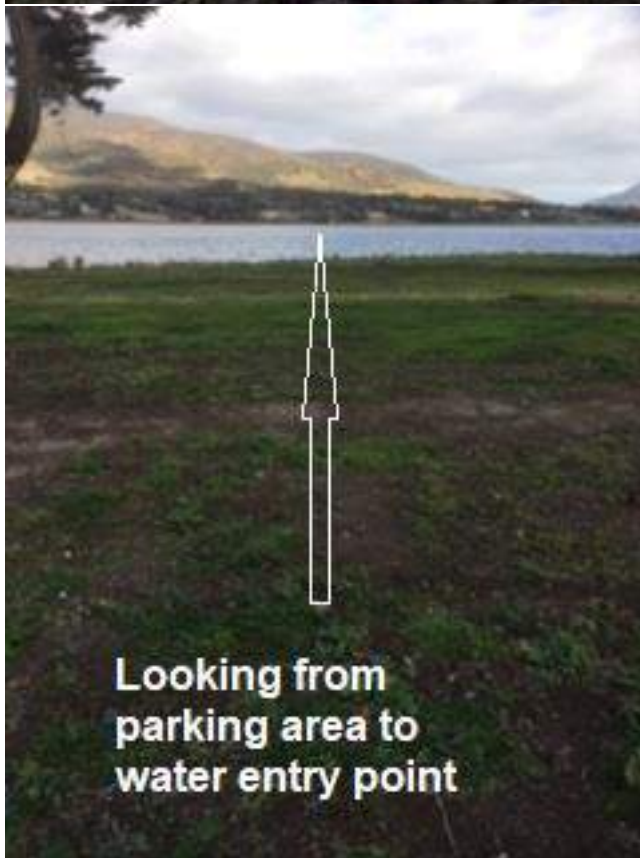




**Transit
Area**



**Water edge entry
point area**



RAA 3644 - Attachment 5 - Tiger 12 Hovercraft



What is it (continued)

11a. What sort of site is it?

Isolated artefact: Artefact scatter: Other:
 Occupied shelter: Unoccupied shelter: Specify other: _____
 Shell midden: Seal hides: _____
 Engraving: Stone arrangement: _____

11b. If it is a shell midden, what sort is it?

Hut: Linear: Large concentration:
 Deflated: Small concentration: (DISTURBED CONTEXT)

11c. If it is stratified, how many separate layers of shells or artefacts are there?

Number: 1 2 3 4 5 6 7 State if the depth of the layer is measured in inches or centimetres
 Thickness: *N/A*

12. What is in the midden? Count the shell in each level or sample area. If there are less than thirty shells simply indicate the shells that are present in the site with a cross and put a "C" in the box with the most common type of shell. Do the same for the stone tools.

Level/sample	1	2	3	4	5	6	7	State size of sample areas: _____ m ²
Warenner:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Turbo undulata</i>
Mutton fish:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Haliotis sp.</i>
Brown mussel:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Brachiodontes sp.</i>
Black mussel:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Mytilus edulis</i>
Big limpet:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Cellana solida/Patella sp.</i>
Small limpet:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Patteloida sp.</i>
Big whelk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Cymatium spengleri</i>
Small whelk:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Dicathais sp.</i>
Perriwinkle:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Austrocochlea sp.</i>
Chiton:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Plaxiphora sp./ Isnochiton sp.</i>
Crayfish:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Jansus novoholondae</i>
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Specify: <u>OYSTER.</u>

Stone tools

Spongolite:
 Black chert:
 Silcrete:
 Grey quartz:

Formal tool types seen:

Stone (continued)

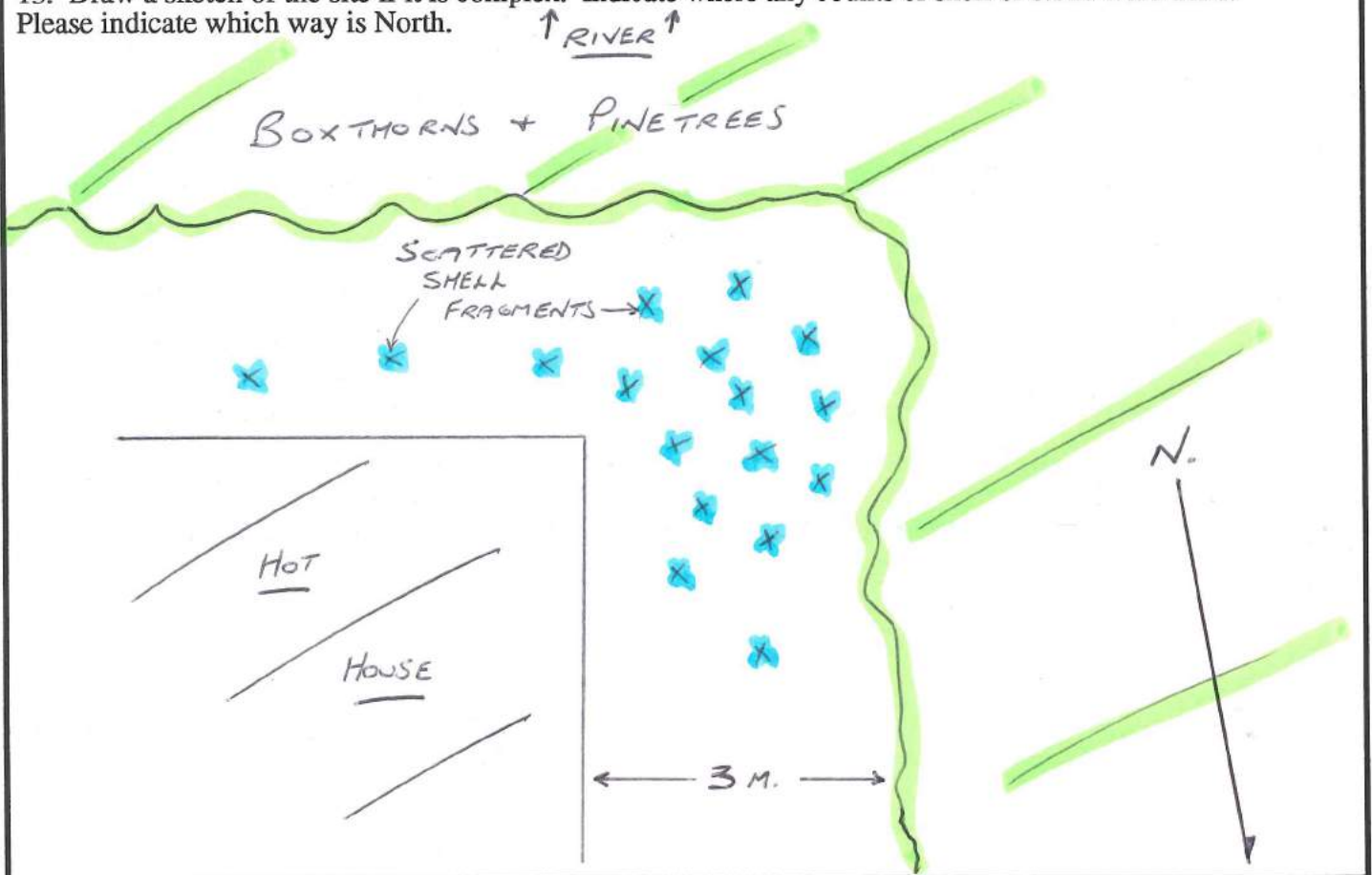
Level/sample	1	2	3	4	5	6	7	Formal tool types seen (cont.):
White quartz:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Quartzite:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Specify other: _____

Bones

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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What animal bones are in which levels? _____

13. Draw a sketch of the site if it is complex. Indicate where any counts of shell or stone were done. Please indicate which way is North.



What is happening to the site?

IT APPEARS THAT A LARGE PERCENTAGE IS DISTURBED HOWEVER THERE MAY BE MATERIAL IN SITU BELOW THE SURFACE.

14. How much of the site is disturbed? % or Not known:

15. What has caused the disturbance? Tick more than one if necessary.

Four wheel drives: <input type="checkbox"/>	Four wheel bikes: <input type="checkbox"/>
Stock: <input type="checkbox"/>	Native animals: <input type="checkbox"/>
Stream: <input type="checkbox"/>	Waves: <input type="checkbox"/>
Wind: <input type="checkbox"/>	Other: <input checked="" type="checkbox"/>

AGRICULTURAL ACTIVITY & BUILDING (HOT HOUSE) CONSTRUCTION. Please turn over

14. If there is any disturbance at the site, record the depth and whether the disturbance is new or old.

Area	1	2	3	4	5	6
Size	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type of Disturbance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Depth of disturbance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Age of disturbance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

17. Do the dunes in the area have a stepped appearance? *N/A*

Yes:

No:

18. Any other details? _____

19. Describe the site: _____

Site BW 1 - TASI 7774 - Grid reference 8312 182 681 - Shell midden.
 (Previously identified as site 294 by Officer)

This site is located in a highly disturbed area adjacent to the south west corner of a large hot house complex, approximately 250 metres west (or upstream) of the Bridgewater Bridge. The site consists of small fragments of oyster shell spread over approximately 10 metres in length by several metres wide. The shell extends along the northern and southern border of the hot house which may indicate that the material was exposed during the original excavation for foundations of the building. Due to the highly disturbed nature of the area it is not possible to ascertain the full extent of the site, that is, whether or not there is undisturbed midden deposit below the disturbed topsoil. The site does not appear to extend into the pine trees and boxthorns which lie between the hothouse and the riverbank.

20. Notes

Are there photographs of the site?

Yes:

No:



Department of Primary Industries, Parks, Water and Environment

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www.parks.tas.gov.au



Mr James Dryburgh
General Manager
Brighton Council
1 Tivoli Road
OLD BEACH TAS 7017

Dear Mr Dryburgh

CROWN CONSENT - FLYING TIGERS HOVERCRAFT ADVENTURES - RIVER DERWENT MARINE CONSERVATION AREA

This letter, issued in accordance with section 52 of the *Land Use Planning and Approvals Act 1993*, is to confirm that the Crown consents to the making of the enclosed Application for Planning Permit insofar as the proposed development relates to Reserved land known as the River Derwent Marine Conservation Area, reserved pursuant to section 11 of the *Nature Conservation Act 2002*.

Crown consent is only given to the lodgement of the application by Freycinet Hover Explorer Pty Ltd (trading as Flying Tigers Hovercraft Adventures), for the operation of a hovercraft tour within the River Derwent Marine Conservation Area. The Tasmania Parks and Wildlife Service (PWS) can confirm that it is the relevant managing authority for the River Derwent Marine Conservation Area.

Please note that Crown consent is only given to the lodgement of the application as stated, and that any variation will require the further consent of the Crown.

This letter does not imply or constitute any Crown approval to undertake works or activities, nor that final approvals have been obtained. Should the council grant a planning permit for the proposed development, the proponent will need to seek a final Authority from the Crown before commencing any works or activities on the respective Reserved land.

The PWS is in the process of completing an assessment of the proposed use (Reserve Activity Assessment # 3644), and has deemed it to be consistent with the relevant management objectives under the *National Parks and Reserves Management Act 2002*. A formal licence, with conditions, is yet to be prepared.

Any questions regarding this matter may be directed to Matt Lindus, PWS Ranger in Charge, Seven Mile Beach Field Centre, on 6107 9211 or Matthew.Lindus@parks.tas.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'LW', with a long horizontal flourish extending to the right.

Louise Wilson
A/DEPUTY SECRETARY
PARKS AND WILDLIFE SERVICE

Signed pursuant to an Instrument of Delegation dated 24 July 2019.

31 January 2021