



PORT MACQUARIE-HASTINGS
COUNCIL



Development Assessment Panel

Business Paper

date of meeting: Wednesday 24 July 2019

location: Function Room
Port Macquarie-Hastings Council
17 Burrawan Street
Port Macquarie

time: 2:00pm

Note: Council is distributing this agenda on the strict understanding that the publication and/or announcement of any material from the Paper before the meeting not be such as to presume the outcome of consideration of the matters thereon.

Development Assessment Panel

CHARTER

1.0 OBJECTIVES

To assist in managing Council's development assessment function by providing independent and expert determinations of development applications that fall outside of staff delegations.

2.0 KEY FUNCTIONS

- To review development application reports and conditions;
- To determine development applications outside of staff delegations;
- To refer development applications to Council for determination where necessary;
- To provide a forum for objectors and applicants to make submissions on applications before the Development Assessment Panel (DAP);
- To maintain transparency in the determination of development applications.

Delegated Authority of Panel

Pursuant to Section 377 of the Local Government Act, 1993 delegation to:

- Determine development applications under Part 4 of the Environmental Planning and Assessment Act 1979 having regard to the relevant environmental planning instruments, development control plans and Council policies.
- Vary, modify or release restrictions as to use and/or covenants created by Section 88B instruments under the Conveyancing Act 1919 in relation to development applications for subdivisions being considered by the panel.
- Determine Koala Plans of Management under State Environmental Planning Policy 44 - Koala Habitat Protection associated with development applications being considered by the Panel.

Noting the trigger to escalate decision making to Council as highlighted in section 5.2.

3.0 MEMBERSHIP

3.1 Voting Members

- Two independent external members. One of the independent external members to

be the Chairperson.

- Group Manager Development Assessment (alternate - Director Development & Environment or Development Assessment Planner)

The independent external members shall have expertise in one or more of the following areas: planning, architecture, heritage, the environment, urban design, economics, traffic and transport, law, engineering, government and public administration.

3.2 Non-Voting Members

- Not applicable

3.3 Obligations of members

- Members must act faithfully and diligently and in accordance with this Charter.
- Members must comply with Council's Code of Conduct.
- Except as required to properly perform their duties, DAP members must not disclose any confidential information (as advised by Council) obtained in connection with the DAP functions.
- Members will have read and be familiar with the documents and information provided by Council prior to attending a DAP meeting.
- Members must act in accordance with Council's Workplace Health and Safety Policies and Procedures
- External members of the Panel are not authorised to speak to the media on behalf of Council. Council officers that are members of the Committee are bound by the existing operational delegations in relation to speaking to the media.
- Staff members shall not vote on matters before the Panel if they have been the principle author of the development assessment report.

3.4 Member Tenure

- The independent external members will be appointed for the term of four (4) years maximum in which the end of the tenure of these members would occur in a cascading arrangement.

3.5 Appointment of members

- The independent external members (including the Chair) shall be appointed by the General Manager following an external Expression of Interest process.
- Staff members of the Panel are in accordance with this Charter.

4.0 TIMETABLE OF MEETINGS

- The Development Assessment Panel will generally meet on the 1st and 3rd Wednesday each month at 2.00pm at the Port Macquarie offices of Council.
- Special Meetings of the Panel may be convened by the Director Development & Environment Services with three (3) days notice.

5.0 MEETING PRACTICES

5.1 Meeting Format

- At all Meetings of the Panel the Chairperson shall occupy the Chair and preside. The Chair will be responsible for keeping of order at meetings.
- Meetings shall be open to the public.
- The Panel will hear from applicants and objectors or their representatives.
- Where considered necessary, the Panel will conduct site inspections which will be open to the public.

5.2 Decision Making

- Decisions are to be made by consensus. Where consensus is not possible on any item, that item is to be referred to Council for a decision.
- All development applications involving a proposed variation to a development standard greater than 10% under Clause 4.6 of the Local Environmental Plan will be considered by the Panel and recommendation made to the Council for a decision.

5.3 Quorum

- All members (2 independent external members and 1 staff member) must be present at a meeting to form a quorum.

5.4 Chairperson and Deputy Chairperson

- Independent Chair (alternate, second independent member)

5.5 Secretariat

- The Director Development & Environment is to be responsible for ensuring that the Panel has adequate secretariat support. The secretariat will ensure that the business paper and supporting papers are circulated at least three (3) days prior to each meeting. Minutes shall be appropriately approved and circulated to each member within three (3) weeks of a meeting being held.
- The format of and the preparation and publishing of the Business Paper and Minutes shall be similar to the format for Ordinary Council Meetings.

5.6 Recording of decisions

- Minutes will record decisions and how each member votes for each item before the Panel.

6.0 CONVENING OF “OUTCOME SPECIFIC” WORKING GROUPS

Not applicable.

7.0 CONFIDENTIALITY AND CONFLICT OF INTEREST

- Members of the Panel must comply with the applicable provisions of Council’s Code of Conduct. It is the personal responsibility of members to comply with the standards in the Code of Conduct and regularly review their personal circumstances with this in mind.
- Panel members must declare any conflict of interests at the start of each meeting or before discussion of a relevant item or topic. Details of any conflicts of interest should be appropriately minuted. Where members are deemed to have a real or perceived conflict of interest, it may be appropriate they be excused from deliberations on the issue where the conflict of interest may exist. A Panel meeting may be postponed where there is no quorum.

8.0 LOBBYING

- All members and applicants are to adhere to Council’s Lobbying policy. Outside of scheduled Development Assessment Panel meetings, applicants, their representatives, Councillors, Council staff and the general public are not to lobby Panel members via meetings, telephone conversations, correspondence and the like. Adequate opportunity will be provided at Panel inspections or meetings for applicants, their representatives and the general public to make verbal submissions in relation to Business Paper items.

Development Assessment Panel

ATTENDANCE REGISTER

Member	27/03/19	10/04/19	24/04/19	22/05/19	12/06/19
Paul Drake	✓	✓	✓	✓	✓
Robert Hussey	✓	A	✓	✓	
David Crofts (alternate member)		✓			✓
Dan Croft (Group Manager Development Assessment) (alternates) - Director Development & Environment - Development Assessment Planner	✓	✓	✓	✓	✓

Key: ✓ = Present

A = Absent With Apology

X = Absent Without Apology

Development Assessment Panel Meeting

Wednesday 24 July 2019

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Item: 01**Subject: ACKNOWLEDGEMENT OF COUNTRY**

"I acknowledge that we are gathered on Birpai Land. I pay respect to the Birpai Elders both past and present. I also extend that respect to all other Aboriginal and Torres Strait Islander people present."

Item: 02**Subject: APOLOGIES**

RECOMMENDATION

That the apologies received be accepted.

Item: 03**Subject: CONFIRMATION OF PREVIOUS MINUTES**

RECOMMENDATION

That the Minutes of the Development Assessment Panel Meeting held on 12 June 2019 be confirmed.

PRESENT

Members:

Paul Drake
David Crofts
Dan Croft

Other Attendees:

Pat Galbraith-Robertson
Chris Gardiner

The meeting opened at 2:00pm.

01 ACKNOWLEDGEMENT OF COUNTRY

The Acknowledgement of Country was delivered.

02 APOLOGIES

Nil.

03 CONFIRMATION OF MINUTES

CONSENSUS:

That the Minutes of the Development Assessment Panel Meeting held on 22 May 2019 be confirmed.

04 DISCLOSURES OF INTEREST

There were no disclosures of interest presented.

05 DA2018 - 85.1 DECK AND SWIMMING POOL AT LOT 377 DP 236950, NO 31 VENDUL CRESCENT, PORT MACQUARIE

Speaker:
Paula Stone (applicant)

CONSENSUS:

That DA2018 - 85.1 for a Deck and Swimming Pool at Lot 377, DP 236950, No. 31 Vendul Crescent, Port Macquarie, be determined by granting consent subject to the recommended conditions and as amended below:

- Amend condition B(6) to read: *A privacy screen 1.8m high and with a maximum of 25% openings shall be provided along the full length of the eastern end of the deck. Details are to be submitted for the approval of the Principal Certifying Authority prior to the issue of a Construction Certificate.*

06 DA2018 - 131.1 - STAGED 2 INTO 4 LOT TORRENS TITLE RURAL SUBDIVISION - LOT 1 DP 1009991, SANCROX ROAD AND LOT 14 DP 1043738, OXLEY HIGHWAY, SANCROX

Speakers:
Maurice Driscoll (submitter)
Graham Burns (submitter)
Scott Marchant (applicant)

CONSENSUS:

That DA2018 - 131.1 for a Staged 2 into 4 lot Torrens Title rural subdivision at Lot 1 DP 1009991, Sancrox Road and Lot 14 DP 1043738, Oxley Highway, Sancrox be determined by granting consent subject to the recommended conditions and as amended below:

- Amend condition E (5) to read: *The application for Subdivision Certificate shall include Creation of a restriction to the land use, pursuant to section 88B of the 'Conveyancing Act 1919' on all lots within the subdivision which includes the following:*
 - a) *Proposed reciprocal rights of access over various existing tracks, that are proposed to provide alternative access to/from proposed Lots 1 to 4.*
These access roads are to be constructed to and maintained in accordance with the requirements of section 4.1.3 Access (2) - Property Access, of PBP 2006.
 - b) *Any application for future water service and meters will include the costs associated with a water service and water meter installation and payment of development contributions under Section 64 of the Water Management Act 2000 (unless contributions credits are identified).*
 - c) *Nominated building envelopes as per the NSW Rural Fire Service Bushfire Safety Authority dated 28 May 2019.*

07 GENERAL BUSINESS

Nil.

The meeting closed at 2:20pm.

Item: 04
Subject: DISCLOSURES OF INTEREST

RECOMMENDATION

That Disclosures of Interest be presented

DISCLOSURE OF INTEREST DECLARATION

Name of Meeting:	
Meeting Date:	
Item Number:	
Subject:	
I, the undersigned, hereby declare the following interest:	
<input type="checkbox"/> Pecuniary: Take no part in the consideration and voting and be out of sight of the meeting.	
<input type="checkbox"/> Non-Pecuniary – Significant Interest: Take no part in the consideration and voting and be out of sight of the meeting.	
<input type="checkbox"/> Non-Pecuniary – Less than Significant Interest: May participate in consideration and voting.	
For the reason that:	
Name: Signed:	Date:
Please submit to the Governance Support Officer at the Council Meeting.	

(Refer to next page and the Code of Conduct)

Pecuniary Interest

- 4.1 A pecuniary interest is an interest that you have in a matter because of a reasonable likelihood or expectation of appreciable financial gain or loss to you or a person referred to in clause 4.3.
- 4.2 You will not have a pecuniary interest in a matter if the interest is so remote or insignificant that it could not reasonably be regarded as likely to influence any decision you might make in relation to the matter, or if the interest is of a kind specified in clause 4.6.
- 4.3 For the purposes of this Part, you will have a pecuniary interest in a matter if the pecuniary interest is:
 - (a) your interest, or
 - (b) the interest of your spouse or de facto partner, your relative, or your partner or employer, or
 - (c) a company or other body of which you, or your nominee, partner or employer, is a shareholder or member.
- 4.4 For the purposes of clause 4.3:
 - (a) Your "relative" is any of the following:
 - i) your parent, grandparent, brother, sister, uncle, aunt, nephew, niece, lineal descendant or adopted child
 - ii) your spouse's or de facto partner's parent, grandparent, brother, sister, uncle, aunt, nephew, niece, lineal descendant or adopted child
 - iii) the spouse or de facto partner of a person referred to in paragraphs (i) and (ii)
 - (b) "de facto partner" has the same meaning as defined in section 21C of the *Interpretation Act 1987*.
- 4.5 You will not have a pecuniary interest in relation to a person referred to in subclauses 4.3(b) or (c)
 - (a) if you are unaware of the relevant pecuniary interest of your spouse, de facto partner, relative, partner, employer or company or other body, or
 - (b) just because the person is a member of, or is employed by, a council or a statutory body, or is employed by the Crown, or
 - (c) just because the person is a member of, or a delegate of a council to, a company or other body that has a pecuniary interest in the matter, so long as the person has no beneficial interest in any shares of the company or body.

Non-Pecuniary

- 5.1 Non-pecuniary interests are private or personal interests a council official has that do not amount to a pecuniary interest as defined in clause 4.1 of this code. These commonly arise out of family or personal relationships, or out of involvement in sporting, social, religious or other cultural groups and associations, and may include an interest of a financial nature.
- 5.2 A non-pecuniary conflict of interest exists where a reasonable and informed person would perceive that you could be influenced by a private interest when carrying out your official functions in relation to a matter.
- 5.3 The personal or political views of a council official do not constitute a private interest for the purposes of clause 5.2.
- 5.4 Non-pecuniary conflicts of interest must be identified and appropriately managed to uphold community confidence in the probity of council decision-making. The onus is on you to identify any non-pecuniary conflict of interest you may have in matters that you deal with, to disclose the interest fully and in writing, and to take appropriate action to manage the conflict in accordance with this code.
- 5.5 When considering whether or not you have a non-pecuniary conflict of interest in a matter you are dealing with, it is always important to think about how others would view your situation.

Managing non-pecuniary conflicts of interest

- 5.6 Where you have a non-pecuniary conflict of interest in a matter for the purposes of clause 5.2, you must disclose the relevant private interest you have in relation to the matter fully and in writing as soon as practicable after becoming aware of the non-pecuniary conflict of interest and on each occasion on which the non-pecuniary conflict of interest arises in relation to the matter. In the case of members of council staff other than the general manager, such a disclosure is to be made to the staff member's manager. In the case of the general manager, such a disclosure is to be made to the mayor.
- 5.7 If a disclosure is made at a council or committee meeting, both the disclosure and the nature of the interest must be recorded in the minutes on each occasion on which the non-pecuniary conflict of interest arises. This disclosure constitutes disclosure in writing for the purposes of clause 5.6.
- 5.8 How you manage a non-pecuniary conflict of interest will depend on whether or not it is significant.
- 5.9 As a general rule, a non-pecuniary conflict of interest will be significant where it does not involve a pecuniary interest for the purposes of clause 4.1, but it involves:
 - a) a relationship between a council official and another person who is affected by a decision or a matter under consideration that is particularly close, such as a current or former spouse or de facto partner, a relative for the purposes of clause 4.4 or another person from the council official's extended family that the council official has a close personal relationship with, or another person living in the same household
 - b) other relationships with persons who are affected by a decision or a matter under consideration that are particularly close, such as friendships and business relationships. Closeness is defined by the nature of the friendship or business relationship, the frequency of contact and the duration of the friendship or relationship.
 - c) an affiliation between the council official and an organisation (such as a sporting body, club, religious, cultural or charitable organisation, corporation or association) that is affected by a decision or a matter under consideration that is particularly strong. The strength of a council official's affiliation with an organisation is to be determined by the extent to which they actively participate in the management, administration or other activities of the organisation.
 - d) membership, as the council's representative, of the board or management committee of an organisation that is affected by a decision or a matter under consideration, in circumstances where the interests of the council and the organisation are potentially in conflict in relation to the particular matter
 - e) a financial interest (other than an interest of a type referred to in clause 4.6) that is not a pecuniary interest for the purposes of clause 4.1
 - f) the conferral or loss of a personal benefit other than one conferred or lost as a member of the community or a broader class of people affected by a decision.
- 5.10 Significant non-pecuniary conflicts of interest must be managed in one of two ways:
 - a) by not participating in consideration of, or decision making in relation to, the matter in which you have the significant non-pecuniary conflict of interest and the matter being allocated to another person for consideration or determination, or
 - b) if the significant non-pecuniary conflict of interest arises in relation to a matter under consideration at a council or committee meeting, by managing the conflict of interest as if you had a pecuniary interest in the matter by complying with clauses 4.28 and 4.29.
- 5.11 If you determine that you have a non-pecuniary conflict of interest in a matter that is not significant and does not require further action, when disclosing the interest you must also explain in writing why you consider that the non-pecuniary conflict of interest is not significant and does not require further action in the circumstances.
- 5.12 If you are a member of staff of council other than the general manager, the decision on which option should be taken to manage a non-pecuniary conflict of interest must be made in consultation with and at the direction of your manager. In the case of the general manager, the decision on which option should be taken to manage a non-pecuniary conflict of interest must be made in consultation with and at the direction of the mayor.
- 5.13 Despite clause 5.10(b), a councillor who has a significant non-pecuniary conflict of interest in a matter, may participate in a decision to delegate consideration of the matter in question to another body or person.
- 5.14 Council committee members are not required to declare and manage a non-pecuniary conflict of interest in accordance with the requirements of this Part where it arises from an interest they have as a person chosen to represent the community, or as a member of a non-profit organisation or other community or special interest group, if they have been appointed to represent the organisation or group on the council committee.

SPECIAL DISCLOSURE OF PECUNIARY INTEREST DECLARATION

This form must be completed using block letters or typed.

If there is insufficient space for all the information you are required to disclose, you must attach an appendix which is to be properly identified and signed by you.

By <i>[insert full name of councillor]</i>	
In the matter of <i>[insert name of environmental planning instrument]</i>	
Which is to be considered at a meeting of the <i>[insert name of meeting]</i>	
Held on <i>[insert date of meeting]</i>	
PECUNIARY INTEREST	
Address of the affected principal place of residence of the councillor or an associated person, company or body <i>(the identified land)</i>	
Relationship of identified land to councillor <i>[Tick or cross one box.]</i>	<input type="checkbox"/> The councillor has interest in the land (e.g. is owner or has other interest arising out of a mortgage, lease, trust, option or contract, or otherwise). <input type="checkbox"/> An associated person of the councillor has an interest in the land. <input type="checkbox"/> An associated company or body of the councillor has interest in the land.
MATTER GIVING RISE TO PECUNIARY INTEREST¹	
Nature of land that is subject to a change in zone/planning control by proposed LEP <i>(the subject land²)</i> <i>[Tick or cross one box]</i>	<input type="checkbox"/> The identified land. <input type="checkbox"/> Land that adjoins or is adjacent to or is in proximity to the identified land.
Current zone/planning control <i>[Insert name of current planning instrument and identify relevant zone/planning control applying to the subject land]</i>	
Proposed change of zone/planning control <i>[Insert name of proposed LEP and identify proposed change of zone/planning control applying to the subject land]</i>	
Effect of proposed change of zone/planning control on councillor or associated person <i>[Tick or cross one box]</i>	<input type="checkbox"/> Appreciable financial gain. <input type="checkbox"/> Appreciable financial loss.

[If more than one pecuniary interest is to be declared, reprint the above box and fill in for each additional interest]

Councillor's Signature: **Date:**

This form is to be retained by the council's general manager and included in full in the minutes of the meeting

Last Updated: 3 June 2019

Important Information

This information is being collected for the purpose of making a special disclosure of pecuniary interests under clause 4.36(c) of the Model Code of Conduct for Local Councils in NSW (the Model Code of Conduct).

The special disclosure must relate only to a pecuniary interest that a councillor has in the councillor's principal place of residence, or an interest another person (whose interests are relevant under clause 4.3 of the Model Code of Conduct) has in that person's principal place of residence.

Clause 4.3 of the Model Code of Conduct states that you will have a pecuniary interest in a matter because of the pecuniary interest of your spouse or your de facto partner or your relative or because your business partner or employer has a pecuniary interest. You will also have a pecuniary interest in a matter because you, your nominee, your business partner or your employer is a member of a company or other body that has a pecuniary interest in the matter.

"Relative" is defined by clause 4.4 of the Model Code of Conduct as meaning your, your spouse's or your de facto partner's parent, grandparent, brother, sister, uncle, aunt, nephew, niece, lineal descendant or adopted child and the spouse or de facto partner of any of those persons.

You must not make a special disclosure that you know or ought reasonably to know is false or misleading in a material particular. Complaints about breaches of these requirements are to be referred to the Office of Local Government and may result in disciplinary action by the Chief Executive of the Office of Local Government or the NSW Civil and Administrative Tribunal.

This form must be completed by you before the commencement of the council or council committee meeting at which the special disclosure is being made. The completed form must be tabled at the meeting. Everyone is entitled to inspect it. The special disclosure must be recorded in the minutes of the meeting.

¹ Clause 4.1 of the Model Code of Conduct provides that a pecuniary interest is an interest that a person has in a matter because of a reasonable likelihood or expectation of appreciable financial gain or loss to the person. A person does not have a pecuniary interest in a matter if the interest is so remote or insignificant that it could not reasonably be regarded as likely to influence any decision the person might make in relation to the matter, or if the interest is of a kind specified in clause 4.6 of the Model Code of Conduct.

² A pecuniary interest may arise by way of a change of permissible use of land adjoining, adjacent to or in proximity to land in which a councillor or a person, company or body referred to in clause 4.3 of the Model Code of Conduct has a proprietary interest

Item: 05

**Subject: DA2019 - 314.1 DWELLING (PROPOSED LOT 107) AT LOT 238 DP
1233121 BRONZEWING TERRACE, LAKEWOOD**

Report Author: Development Assessment Planner, Benjamin Roberts

Applicant: Davy Watt and Associates

Owner: Port Ventures Pty Ltd

Estimated Cost: \$347,000

Parcel no: 67182

Alignment with Delivery Program

4.3.1 Undertake transparent and efficient development assessment in accordance with relevant legislation.

RECOMMENDATION

That DA 2019 - 314 for a dwelling (on proposed lot 107) at Lot 238, DP 1233121, Bronzewing Terrace, Lakewood, be determined by granting consent subject to the recommended conditions.

Executive Summary

This report considers a development application for a dwelling at the subject site and provides an assessment of the application in accordance with the Environmental Planning and Assessment Act 1979.

The proposal is on a lot yet to be created via an approved subdivision (DA2009 - 215). The lot in the approved subdivision is proposed lot 107.

Following exhibition of the application, three (3) submissions have been received.

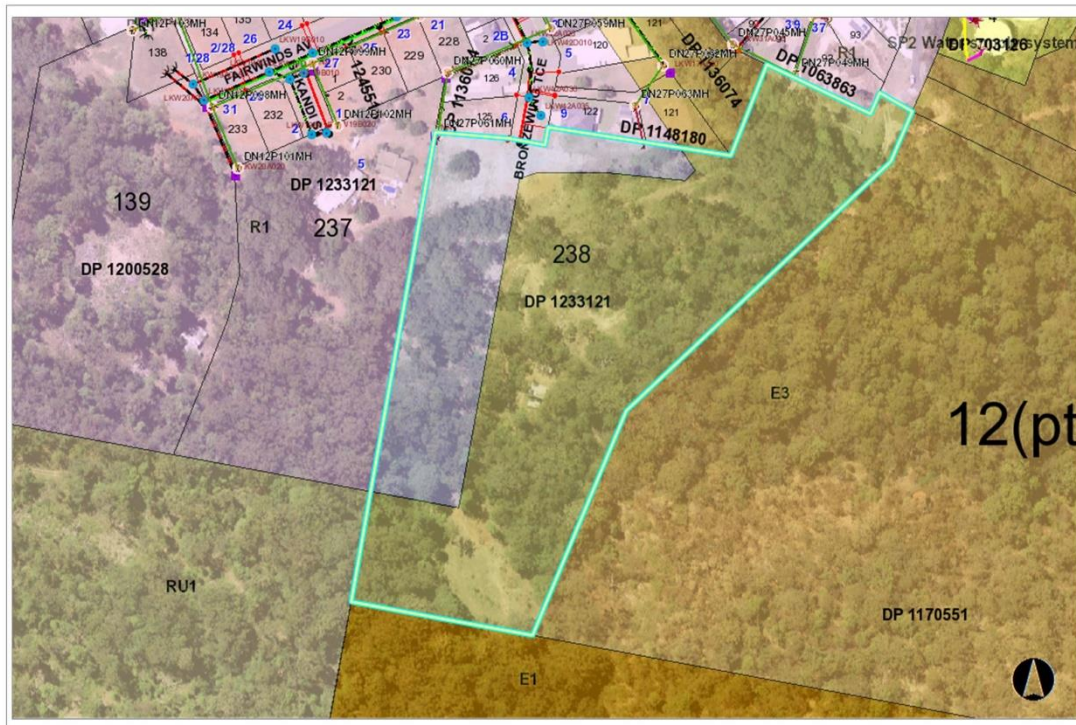
This report recommends that the development application be approved subject to the conditions included in **Attachment 1**.

1. BACKGROUND

Existing Sites Features and Surrounding Development

The property has an area of 42.3 hectares. Proposed Lot 107 will have an area of 24.6 hectares.

The site is zoned E3 Environmental Management in accordance with the Port Macquarie-Hastings Local Environmental Plan 2011, as shown in the following zoning plan:



The existing subdivision pattern and location of existing development within the locality is shown in the following aerial photograph:



2. DESCRIPTION OF DEVELOPMENT

Key aspects of the proposal include the following:

- Construction of new dwelling

Refer to **Attachment 2** at the end of this report.

Application Chronology

- 2 May 2019 - Application lodged.
- 15 to 28 May 2019 - Public exhibition via neighbour notification.
- 16 May 2019 - Additional information request.
- 27 June 2019 - Additional information response with revised plans.

3. STATUTORY ASSESSMENT**Section 4.15(1) Matters for Consideration**

In determining the application, Council is required to take into consideration the following matters as are relevant to the development that apply to the land to which the development application relates:

- (a) **The provisions (where applicable) of:**
 - (i) **Any Environmental Planning Instrument:**

State Environmental Planning Policy No 44—Koala Habitat Protection

In accordance with clauses 6 and 7, the subject land has an area of more than 1 hectare in size and therefore the provisions of SEPP must be considered.

The Department of Planning and Infrastructure's Circular No. B35, Section 1.5 states that "In relation to affected DAs it is the intention of the policy that investigations for 'potential' and 'core' koala habitats be limited to those areas in which it is proposed to disturb habitat".

The application involves the removal of two nature eucalypt trees. The trees being a Tallowwood and Turpentine species.

In accordance with step 1 of this policy the site qualifies as potential Koala habitat. This is based on previous ecological assessment and findings undertaken for the underlying subdivision by a qualified ecologist.

In accordance with step 2 of this policy the site does not qualify as core Koala habitat. This is based on previous ecological assessment and findings undertaken for the underlying subdivision by an ecologist, which found no evidence to indicate the presence of Koalas on the site.

The requirements of this SEPP are therefore satisfied.

State Environmental Planning Policy No.55 – Remediation of Land

In accordance with clause 7, following an inspection of the site and a search of Council records, the subject land is not identified as being potentially contaminated and is suitable for the intended use.

The requirements of this SEPP are therefore satisfied.

State Environmental Planning Policy (Primary Production and Rural Development) 2019

In accordance with clause 29 given the nature of the proposed development, proposed stormwater controls and its' location, the proposal will be unlikely to have any identifiable adverse impact on any existing aquaculture industries.

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

In accordance with clause 6, a BASIX certificate has been submitted demonstrating that the proposal will comply with the requirements of the SEPP. It is recommended that a condition be imposed to ensure that the commitments are incorporated into the development and certified at Occupation Certificate stage.

The requirements of this SEPP are satisfied.

Port Macquarie-Hastings Local Environmental Plan 2011

In accordance with clause 2.2, the subject site is zoned E3 Environmental Management.

In accordance with clause 2.3(1) and the E3 zone landuse table, the proposed development for a dwelling house is a permissible landuse with consent.

The objectives of the E3 zone are as follows:

- To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
- To provide for a limited range of development that does not have an adverse effect on those values.

In accordance with clause 2.3(2), the proposal is consistent with the zone objectives having regard to the following:

- the proposal is a permissible landuse;
- will not adversely affect the ecological, scientific, cultural or aesthetic values of the land.

In accordance with clause 4.2A, the dwelling is proposed on an approved lot from an approved subdivision (DA2009/215). The lot was approved for the purpose of containing a dwelling house and has a nominated building and APZ envelope. The proposed dwelling and APZ is located within the nominated building and APZ envelope.

In accordance with clause 5.10. The site does not contain or adjoin any known heritage items or sites of significance.

In accordance with clause 7.13, satisfactory arrangements are in place for provision of essential public utility infrastructure including stormwater, water and sewer infrastructure to service the development.

(ii) Any draft instruments that apply to the site or are on exhibition:

No draft instruments apply.

(iii) Any Development Control Plan in force:

Port Macquarie-Hastings Development Control Plan 2013

<i>DCP 2013: Dwellings, Dual occupancies, Dwelling houses, Multi dwelling houses & Ancillary development</i>			
	Requirements	Proposed	Complies
3.2.2.1	Ancillary development: <ul style="list-style-type: none"> • 4.8m max. height • Single storey • 60m² max. area • 100m² for lots >900m² • 24 degree max. roof pitch • Not located in front setback 	No ancillary development proposed.	N/A
3.2.2.2	Articulation zone: <ul style="list-style-type: none"> • Min. 3m front setback • An entry feature or portico • A balcony, deck, patio, pergola, terrace or verandah • A window box treatment • A bay window or similar feature • An awning or other feature over a window • A sun shading feature 	No elements within the articulation zone.	N/A
	Front setback in a rural context : <ul style="list-style-type: none"> • Min. 10m local road 	Front building line setback is 14.35m and compliant with the minimum front setback requirements.	Yes
3.2.2.3	Garage 5.5m min. and 1m behind front façade. Garage door recessed behind building line or eaves/overhangs provided	Garage door setback is compliant with the minimum front setback requirements. Garage door recessed.	Yes
	6m max. width of garage door/s and 50% max. width of building	Width of garage door/s are compliant with the maximum width requirements	Yes
	Driveway crossover 1/3 max. of site frontage and max. 5.0m width	Driveway crossing width is compliant with the maximum width requirements	Yes
3.2.2.4	4m min. rear setback. Variation subject to site analysis and provision of private open space	The rear setback requirements are complied with.	Yes
3.2.2.5	Side setbacks: <ul style="list-style-type: none"> • Ground floor = min. 0.9m • First floors & above = 	The minimum side setback requirements are complied with.	Yes

DCP 2013: Dwellings, Dual occupancies, Dwelling houses, Multi dwelling houses & Ancillary development			
	Requirements	Proposed	Complies
	min. 3m setback or where it can be demonstrated that overshadowing not adverse = 0.9m min. • Building wall set in and out every 12m by 0.5m	The building wall articulation is compliant and/or satisfactory to address the objective intent of the development provision.	
3.2.2.6	35m ² min. private open space area including a useable 4x4m min. area which has 5% max. grade	The dwelling contains >35m ² open space in one area including a useable 4m x 4m space.	Yes
3.2.2.7	Front fences: • If solid 1.2m max height and front setback 1.0m with landscaping • 3x3m min. splay for corner sites • Fences >1.2m to be 1.8m max. height for 50% or 6.0m max. length of street frontage with 25% openings • 0.9x0.9m splays adjoining driveway entrances	No fences proposed	N/A
3.2.2.8	Front fences and walls to have complimentary materials to context No chain wire, solid timber, masonry or solid steel front fences	N/A	N/A
3.2.2.10	Privacy: • Direct views between living areas of adjacent dwellings screened when within 9m radius of any part of window of adjacent dwelling and within 12m of private open space areas of adjacent dwellings. ie. 1.8m fence or privacy screening which has 25% max. openings and is permanently fixed • Privacy screen required if floor level > 1m height, window side/rear setback (other than bedroom) is	The development will not compromise privacy in the area due to the generous building separation.	Yes

DCP 2013: Dwellings, Dual occupancies, Dwelling houses, Multi dwelling houses & Ancillary development

	Requirements	Proposed	Complies
	less than 3m and sill height less than 1.5m • Privacy screens provided to balconies/verandahs etc which have <3m side/rear setback and floor level height >1m		
3.2.2.11	Roof terraces	N/A	N/A
3.2.2.13 onwards	Jetties and boat ramps	N/A	N/A

DCP 2013: General Provisions

	Requirements	Proposed	Complies
2.7.2.2	Design addresses generic principles of Crime Prevention Through Environmental Design guideline	No concealment or entrapment areas proposed. Adequate casual surveillance available.	Yes
2.3.3.1	Cut and fill 1.0m max. 1m outside the perimeter of the external building walls	Cut just over 1m proposed at rear of dwelling.	No but considered acceptable in this instance.
2.3.3.2	1m max. height retaining walls along road frontage	None proposed along road frontage.	N/A
	Any retaining wall >1.0 in height to be certified by structure engineer	Retaining wall over 1m proposed. Condition recommended to require engineering certification	Yes
	Combination of retaining wall and front fence height max 1.8m, max length 6.0m or 30% of frontage, fence component 25% transparent, and splay at corners and adjacent to driveway	No retaining wall front fence combination proposed.	N/A
2.3.3.8	Removal of hollow bearing trees	No hollow bearing trees proposed to be removed	N/A
2.6.3.1	Tree removal (3m or higher with 100mm diameter trunk at 1m above ground level and 3m from external wall of existing dwelling)	Two trees proposed to be removed	N/A
2.4.3	Bushfire risk, Acid sulphate soils, Flooding, Contamination, Airspace protection, Noise and	Refer to main body of report.	Yes

DCP 2013: General Provisions			
	Requirements	Proposed	Complies
	Stormwater		
2.5.3.2	New accesses not permitted from arterial or distributor roads	No new access proposed to arterial or distribution road.	N/A
	Driveway crossing/s minimal in number and width including maximising street parking	Driveway crossing minimal in width including maximising street parking	Yes
2.5.3.3	Parking in accordance with Table 2.5.1. 1 space per single dwelling (behind building line)	Double garage proposed.	Yes
2.5.3.11	Section 94 contributions	Refer to main body of report.	Yes
2.5.3.12 and 2.5.3.13	Landscaping of parking areas	Single dwelling only with 1 domestic driveway. No specific landscaping requirements recommended.	N/A
2.5.3.14	Sealed driveway surfaces unless justified	Sealed driveway proposed	Yes
2.5.3.15 and 2.5.3.16	Driveway grades first 6m or 'parking area' shall be 5% grade with transitions of 2m length	Driveway grades capable of satisfying Council standard driveway crossover requirements. Condition recommended for section 138 Roads Act permit	Yes
2.5.3.17	Parking areas to be designed to avoid concentrations of water runoff on the surface.	Single dwelling only with 1 domestic driveway. Stormwater drainage is capable of being managed as part of plumbing construction.	Yes

(iia) Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4:

No planning agreement has been offered or entered into.

iv) Any matters prescribed by the Regulations:

No matters prescribed by the regulations apply.

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, social and economic impacts in the locality:

The proposal will be unlikely to have any adverse impacts to existing adjoining properties and satisfactorily addresses the public domain.

The proposal is considered to be compatible with other residential development in the locality and adequately addresses planning controls for the area.

The proposal does not have a significant adverse impact on existing view sharing.

The proposal does not have significant adverse lighting impacts.

There are no significant adverse privacy impacts.

There is no adverse overshadowing impacts. The proposal does not prevent adjoining properties from receiving 3 hours of sunlight to private open space and primary living areas on 21 June.

Access, Traffic and Transport

The proposal will be unlikely to have any adverse impacts in terms access, transport and traffic. The existing road network will satisfactorily cater for any increase in traffic generation as a result of the development.

Water Supply Connection

There is a water supply service available, however due to the elevation of the proposed development and to ensure adequate water pressure final domestic water service details will need to be determined by a hydraulic consultant to suit this development. Direct pumping from Council's water supply will not be permitted. Details and calculations are to be shown on the plans that accompany the section 68 application.

Sewer Connection

Service available – details required with section 68 application.

Stormwater

Stormwater from the proposal is to be diverted via the existing swale drains that follow the land contours and direct stormwater runoff towards the drainage reserve to the north-east of the site. The existing swales and drainage reserve are capable of managing stormwater runoff from the proposed development. Details required with S.68 application.

Other Utilities

Telecommunication and electricity services are available to the site.

Heritage

This site does not contain or adjoin any known heritage item or site of significance.

Other land resources

The proposal will not sterilise any significant mineral or agricultural resource.

Water cycle

The proposed development will be unlikely to have any adverse impacts on water resources and the water cycle.

Soils

The proposed development will be unlikely to have any adverse impacts on soils in terms of quality, erosion, stability and/or productivity subject to a standard condition requiring erosion and sediment controls to be in place prior to and during construction.

Air and microclimate

The construction and/or operations of the proposed development will be unlikely to result in any adverse impacts on the existing air quality or result in any pollution. Standard precautionary site management condition recommended.

Flora and fauna

The proposed development includes removal of a Tallowwood and Turpentine tree on the site. The Biodiversity Offset Scheme doesn't apply for the following reasons:

- The land isn't identified on the Biodiversity Values Map;
- The extent of clearing is below the thresholds in Clause 7.2 of the Biodiversity Conservation Regulation 2017;
- The application of the test of significance (5 part test) demonstrates that the development will not have a significant impact on biodiversity values.

Waste

Satisfactory arrangements are in place for proposed storage and collection of waste and recyclables. No adverse impacts anticipated. Standard precautionary site management condition recommended.

Energy

The proposal includes measures to address energy efficiency and will be required to comply with the requirements of BASIX.

Noise and vibration

No adverse impacts anticipated. Condition recommended to restrict construction to standard construction hours.

Bushfire

The site is identified as being bushfire prone. The applicant has submitted a self-assessment bushfire report.

An assessment of bushfire risk having regard to section 4.3.5 of Planning for Bushfire Protection 2006 including vegetation classification and slope concludes that a Bushfire Attack Level 29 shall be required.

Management of bushfire risk is acceptable subject to BAL construction levels being implemented and APZ being maintained. An appropriate condition is recommended.

Safety, security and crime prevention

The proposed development will be unlikely to create any concealment/entrapment areas or crime spots that would result in any identifiable loss of safety or reduction of security in the immediate area.

Social impacts in the locality

Given the nature of the proposed development and its' location the proposal is unlikely to result in any adverse social impacts.

Economic impact in the locality

No adverse impacts. A likely positive impact is that the development will maintain employment in the construction industry, which will lead to flow impacts such as expenditure in the area.

Site design and internal design

The proposed development design satisfactorily responds to the site attributes and will fit into the locality. No adverse impacts likely.

Construction

No potential adverse impacts identified to neighbouring properties with the construction of the proposal.

Cumulative Impacts

The proposed development is not expected to have any adverse cumulative impacts on the natural or built environment or the social and economic attributes of the locality.

(c) The suitability of the site for the development:

The proposal will fit into the locality and the site attributes are conducive to the proposed development.

Site constraints have been adequately addressed and appropriate conditions of consent recommended.

(d) Any submissions made in accordance with this Act or the Regulations:

Three (3) written submissions have been received following public exhibition of the application.

Key issues raised in the submissions received and comments in response to these issues are provided as follows:

Submission Issue/Summary	Planning Comment/Response
While its acknowledged that only 6 trees are proposed to be removed its suggested Council ensure only those necessary are removed.	Following discussions with staff the applicant made amendments to the development proposal. The amendments included a change to driveway location, retention of two trees in the outer Asset Protection Zone and removal of shed from the development. The amended proposal will result in two trees being removed. Refer to revised site plan.
A large habitat (hollow bearing) tree exist behind the house site. It's hoped this can be saved. Unfortunately the subdivision removed several of these.	The large hollow bearing tree is to be retained and is setback approximately 27m from the house site. Refer to revised site plan.
The site is elevated and the proposal will stand out. The shed will also be clearly visible. It suggested the Council encourage a house roof and shed 'colour' that is not light and blends in with the forest and national park.	The shed is no longer proposed. The applicant has nominated 'medium' colours in terms of absorptance in meeting BASIX commitments. The colours within this range are suitable in terms of 'blending' in with the surrounding landscape.
Will the existing swale drain contain the additional stormwater runoff from the proposed development?	Stormwater from the proposal is capable of being adequately managed onsite. Refer to comments under stormwater heading of this report.
The land is zoned 7(d) Environment	Refer to comments under LEP 2011 heading

Submission Issue/Summary	Planning Comment/Response
Protection - Scenic and not E3 Environmental Management.	of this report.
The lot is under the 40 hectare lot size standard for a dwelling and no consistent with the zone objective.	Refer to comments under LEP 2011 heading of this report.
Environment protection - scenic has lot 106 partly on it to the north boundary.	The development proposal is contained to proposed lot 107.
A dwelling high on the cleared bank would have a view over all the neighbouring houses, which would cause privacy concerns.	There is approximately 70m of separation to the nearest existing dwelling (9 Bronzewing Terrace). Given the building separation no adverse privacy impacts will result.
The dwelling would be visually prominent at that height and out of character with the surrounding area.	The dwelling is single storey in nature and well-designed having regard to the surrounding landscape. Also refer to previous comments surrounding 'medium' colour scheme. A mixture of single and two-storey dwelling exist within the estate.
The ground floor level is above reduced level 30m AHD.	Noted.
The removal of more trees from the site will make the scenic view far worse than has been made by many trees being removed already, the battering of the bank and not using Gabion baskets.	Following amendments to the proposal only two trees are now proposed to be removed. The visual impact of the two trees being removed will be insignificant.
The dwelling is above the limit for water pressure.	Noted. Refer to water supply heading and comments in the report.
The site is not suitable and will effect neighbours in terms of overshadowing and loss of privacy.	The site is suitable. No adverse overshadowing or privacy impacts will result given the building separation of approximately 70m to the nearest dwelling.

(e) The Public Interest:

The proposed development satisfies relevant planning controls and will not adversely impact on the wider public interest.

4. DEVELOPMENT CONTRIBUTIONS

- Not applicable.

5. CONCLUSION AND STATEMENT OF REASON

The application has been assessed in accordance with Section 4.15 of the Environmental Planning and Assessment Act 1979.

Issues raised during assessment and public exhibition of the application have been considered in the assessment of the application. Where relevant, conditions have been recommended to manage the impacts attributed to these issues.

The site is considered suitable for the proposed development and the proposal adequately addresses relevant planning controls. The development is not considered to be contrary to the public's interest and will not result a significant adverse social,

environmental or economic impact. It is recommended that the application be approved, subject to the recommended conditions of consent provided in the attachment section of this report.

Attachments

- 1 [View](#). DA2019 - 314.1 Recommended Conditions
- 2 [View](#). DA2019 - 314.1 Plans.
- 3 [View](#). DA2019 - 314.1 Arborist Report

**FOR USE BY PLANNERS/SURVEYORS TO PREPARE LIST OF
PROPOSED CONDITIONS - 2011****NOTE: THESE ARE DRAFT ONLY****DA NO: 2019/314****DATE: 5/07/2019****PRESCRIBED CONDITIONS**

The development is to be undertaken in accordance with the prescribed conditions of Part 6 - Division 8A of the *Environmental Planning & Assessment Regulations* 2000.

A – GENERAL MATTERS

- (1) (A001) The development is to be carried out in accordance with the plans and supporting documents set out in the following table, as stamped and returned with this consent, except where modified by any conditions of this consent.

Plan / Supporting Document	Reference	Prepared by	Date
Development plans as stamped	19/017	Davy Watt and Associates	27 June 2019
BASIX Certificate	1006663S	Davy Watt and Associates	12 April 2019
Arboricultural Impact Assessment Report	Proposed Lot 107 Bronzewing Tree Lakewood, 24433	Accomplished Tree Management	5 July 2019

In the event of any inconsistency between conditions of this development consent and the plans/supporting documents referred to above, the conditions of this development consent prevail.

- (2) (A002) No work shall commence until a Construction Certificate has been issued and the applicant has notified Council of:

- the appointment of a Principal Certifying Authority and
- the date on which work will commence.

Such notice shall include details of the Principal Certifying Authority and must be submitted to Council at least two (2) days before work commences.

- (3) (A009) The development site is to be managed for the entirety of work in the following manner:
- Erosion and sediment controls are to be implemented to prevent sediment from leaving the site. The controls are to be maintained until the development is complete and the site stabilised with permanent vegetation;
 - Appropriate dust control measures;
 - Building equipment and materials shall be contained wholly within the site unless approval to use the road reserve has been obtained. Where work adjoins the public domain, fencing is to be in place so as to prevent public access to the site;

4. Building waste is to be managed via appropriate receptacles into separate waste streams;
5. Toilet facilities are to be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
6. Building work being limited to the following hours, unless otherwise permitted by Council;
 - Monday to Saturday from 7.00am to 6.00pm
 - No work to be carried out on Sunday or public holidays

The builder to be responsible to instruct and control his sub-contractors regarding the hours of work.

B - PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

- (1) (B001) Prior to release of the building Construction Certificate, approval pursuant to Section 68 of the Local Government Act, 1993 to carry out water supply, stormwater and sewerage works is to be obtained from Port Macquarie-Hastings Council. The following is to be clearly illustrated on the site plan to accompany the application for Section 68 approval:
 - Position and depth of the sewer (including junction)
 - Stormwater drainage termination point
 - Easements
 - Water main
 - Proposed water meter location

Due to the elevation of the proposed development and to ensure adequate water pressures final domestic water service details will need to be determined by a hydraulic consultant to suit this development. Details and calculations are to be shown on the plans that accompany the section 68 application. Direct pumping from Council's water supply is not permitted.
- (2) (B006) An application pursuant to Section 138 of the Roads Act, 1993 to carry out works required by the Development Consent on or within public road is to be submitted to and obtained from Port Macquarie-Hastings Council prior to release of the building Construction Certificate.

Such works include, but not be limited to:

 - i. Footway and gutter crossing
 - ii. Functional vehicular access
- (3) (B039) Detailed drawings and specifications prepared by a professional engineer for all retaining walls supporting:
 - i. earthworks that are more than 600mm above or below ground level (existing); or
 - ii. located within 1m of the property boundaries; or
 - iii. earthworks that are more than 1m above or below ground level (existing) in any other location;

are to be submitted to the Principal Certifying Authority with the application for the building Construction Certificate.
- (4) (B046) The building shall be designed and constructed so as to comply with the Bushfire Attack Level (BAL) 29 requirements of Australian Standard 3959 and the specifications and requirements of Planning for Bush Fire Protection. Details shall be submitted to the Principal Certifying Authority with the application for the building Construction Certificate demonstrating compliance with this requirement.

Please note: Compliance with the requirements of Planning for Bush Fire Protection 2006 to prevail in the extent of any inconsistency with the Building Code of Australia.

- (5) Evidence of proposed lot 107 being registered with the Lands and Property Information NSW shall be submitted to the Principal Certifying Authority prior to issue of the building Construction Certificate.

C – PRIOR TO ANY WORK COMMENCING ON SITE

- (1) (C015) Tree protection fencing, compliant with *AS 4970/2009 Protection of trees* on development sites must be provided in accordance with the Arboricultural Impact Assessment Report prepared by Accomplished Tree Management and dated 5 July 2019. The fencing shall be in place prior to the commencement of any works or soil disturbance and maintained for the entirety of the works.

D – DURING CONSTRUCTION

- (1) (D003) The Port Macquarie-Hastings area is known to contain rock that may contain naturally occurring asbestos (NOA). Should potential NOA be located on site notification shall be provided to Council and Workcover prior to works proceeding. No work shall recommence until a NOA management plan has been approved by Council or Workcover.
- (2) (D033) Should any Aboriginal objects be discovered in any areas of the site then all excavation or disturbance to the area is to stop immediately and the National Parks and Wildlife Service, Department of Environment and Conservation is to be informed in accordance with Section 91 of the *National Parks and Wildlife Act 1974*. Subject to an assessment of the extent, integrity and significance of any exposed objects, applications under either Section 87 or Section 90 of the *National Parks and Wildlife Act 1974* may be required before work resumes.

E – PRIOR TO OCCUPATION OR THE ISSUE OF OCCUPATION CERTIFICATE

- (1) (E001) The premises shall not be occupied or used in whole or in part until an Occupation Certificate has been issued by the Principal Certifying Authority.
- (2) (E058) Written confirmation being provided to the Principal Certifying Authority (PCA) from any properly qualified person (eg the builder), stating that all commitments made as part of the BASIX Certificate have been completed in accordance with the certificate.
- (3) (E034) Prior to occupation or the issuing of the Occupation Certificate provision to the Principal Certifying Authority of documentation from Port Macquarie-Hastings Council being the local roads authority certifying that all matters required by the approval issued pursuant to Section 138 of the Roads Act have been satisfactorily completed.
- (4) (E051) Prior to occupation or the issuing of any Occupation Certificate a section 68 Certificate of Completion shall be obtained from Port Macquarie-Hastings Council.

F – OCCUPATION OF THE SITE

- (1) (F004) The dwelling is approved for permanent residential use and not for short term tourist and visitor accommodation.
- (2) (F035) The consent only permits the use of the building as a single dwelling and does not permit the adaption or use of the building so as to create a second occupancy.

ABSA Assessor # 20374 April 2019 CDA Reference: 3222																																																																																									
Lot 107 Bronzewing Terrace LAKEWOOD NSW 2443																																																																																									
conceptdesigns@tbg.com.au Ph: 0418877571																																																																																									
Thermal Performance Specifications <table border="1"> <tr> <th>External Wall Construction</th> <th>Insulation</th> <th>Colour (Solar Absorptance)</th> <th>Detail</th> </tr> <tr> <td>Brick Veneer</td> <td>Antiglare foil + R2.0</td> <td>Medium</td> <td>Except Garage</td> </tr> <tr> <td>Brick Veneer</td> <td>Antiglare foil</td> <td>Medium</td> <td>Garage only</td> </tr> <tr> <td>Double Brick</td> <td>None</td> <td>Medium</td> <td></td> </tr> <tr> <th>Internal Wall Construction</th> <th>Insulation</th> <th></th> <th>Detail</th> </tr> <tr> <td>Plasterboard on studs</td> <td>None</td> <td></td> <td></td> </tr> <tr> <td>Plasterboard on studs</td> <td>R2.0</td> <td>Walls between Garage and adjoining rooms Walls between Ldry/WC/Bath and adjoining rooms</td> <td></td> </tr> <tr> <th>Ceiling Construction</th> <th>Insulation</th> <th></th> <th>Detail</th> </tr> <tr> <td>Plasterboard</td> <td>R3.5</td> <td>All ceilings adjacent to roof space (Except Garage)</td> <td></td> </tr> <tr> <th>Roof Construction</th> <th>Insulation</th> <th>Colour (Solar Absorptance)</th> <th>Detail</th> </tr> <tr> <td>Colorbond</td> <td>55mm anticon blanket</td> <td>Medium</td> <td></td> </tr> <tr> <th>Floor Construction</th> <th>Insulation</th> <th>Covering</th> <th></th> </tr> <tr> <td>Concrete</td> <td>None</td> <td>None, Carpet and Tiles</td> <td></td> </tr> <tr> <td>Timber</td> <td>None</td> <td>Carpet, Timber and Tiles</td> <td></td> </tr> <tr> <th>Windows</th> <th>Glass and frame type</th> <th>U Value</th> <th>SHGC</th> </tr> <tr> <td>ANS-001-02</td> <td>Aluminium framed single clear</td> <td>6.38</td> <td>0.72</td> </tr> <tr> <td>ANS-011-01</td> <td>Aluminium framed single clear</td> <td>6.24</td> <td>0.72</td> </tr> <tr> <td>ANS-005-02</td> <td>Aluminium framed single clear</td> <td>6.16</td> <td>0.71</td> </tr> <tr> <td>ANS-011-18</td> <td>Aluminium framed single low e CP</td> <td>4.36</td> <td>0.59</td> </tr> <tr> <td>ANS-005-19</td> <td>Aluminium framed single low e CP</td> <td>4.32</td> <td>0.59</td> </tr> <tr> <td>ANS-066-03</td> <td>Aluminium framed single low e CP</td> <td>3.91</td> <td>0.62</td> </tr> <tr> <td>ANS-066-07</td> <td>Aluminium framed single clear</td> <td>5.91</td> <td>0.75</td> </tr> </table> <p>U and SHGC values are according to AFRC. Alternate products may be used if the U value is the same or lower and the SHGC is within 10% of the above figures. This also applies to changes to the thickness of glass required to meet Bushfire and acoustic regulations.</p>		External Wall Construction	Insulation	Colour (Solar Absorptance)	Detail	Brick Veneer	Antiglare foil + R2.0	Medium	Except Garage	Brick Veneer	Antiglare foil	Medium	Garage only	Double Brick	None	Medium		Internal Wall Construction	Insulation		Detail	Plasterboard on studs	None			Plasterboard on studs	R2.0	Walls between Garage and adjoining rooms Walls between Ldry/WC/Bath and adjoining rooms		Ceiling Construction	Insulation		Detail	Plasterboard	R3.5	All ceilings adjacent to roof space (Except Garage)		Roof Construction	Insulation	Colour (Solar Absorptance)	Detail	Colorbond	55mm anticon blanket	Medium		Floor Construction	Insulation	Covering		Concrete	None	None, Carpet and Tiles		Timber	None	Carpet, Timber and Tiles		Windows	Glass and frame type	U Value	SHGC	ANS-001-02	Aluminium framed single clear	6.38	0.72	ANS-011-01	Aluminium framed single clear	6.24	0.72	ANS-005-02	Aluminium framed single clear	6.16	0.71	ANS-011-18	Aluminium framed single low e CP	4.36	0.59	ANS-005-19	Aluminium framed single low e CP	4.32	0.59	ANS-066-03	Aluminium framed single low e CP	3.91	0.62	ANS-066-07	Aluminium framed single clear	5.91	0.75
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Fixed shading – Eaves Width: As drawn Offset: As drawn Nominal only, refer to plan for detail Width includes guttering, offset is distance above windows																																																																																									
Fixed shading – Other Shaded areas and shade devices as drawn, adjoining buildings and boundary fences																																																																																									
Building Sealing External doors to be weather stripped and windows to comply with AS 2047. LED downlights to be sealed. Exhaust fans to be fitted with dampers as per NCC.																																																																																									



D+W
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Building Designers Association of Australia
Membership No. 076 Accreditation No. 6113

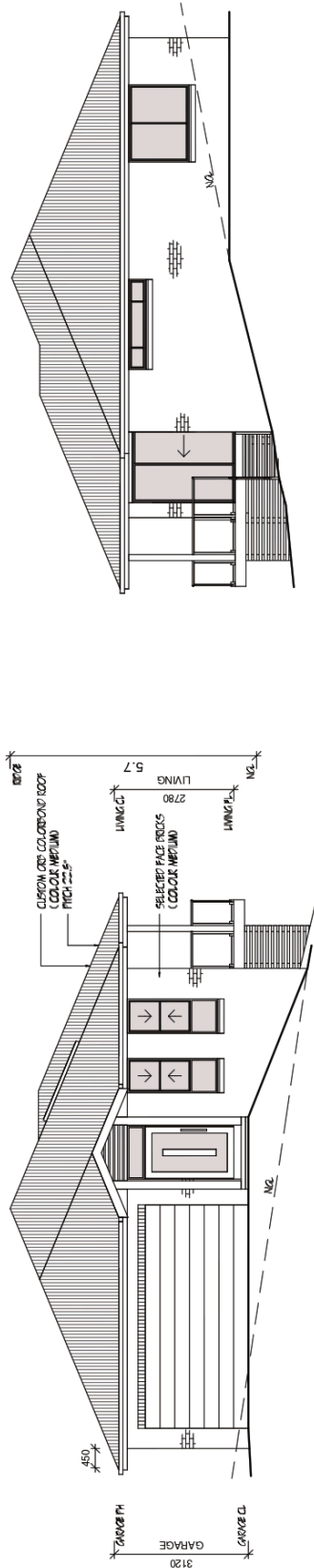
4.9
NATIONWIDE HOUSE
ENERGY RATING 4.9 stars
88.4 kJ/m²
www.nathers.gov.au

Certificate no.: 0003767621
Assessor Name: Stephen Collins
Accreditation no.: 20374
Certificate date: 11 Apr 2019
Dwelling Address: Bronzewing Terrace LAKEWOOD, NSW 2443
www.nathers.gov.au

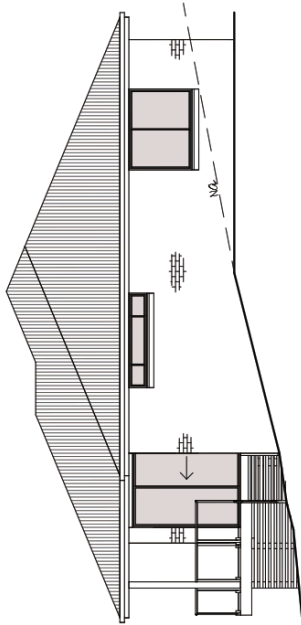


REFERENCE NO. 19 / 017
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ISSUE DEVELOPMENT APPLICATION

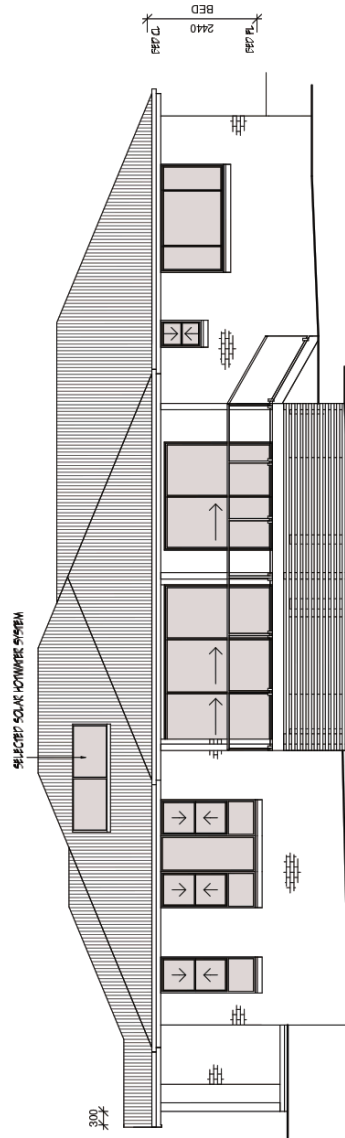
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A NORTH EAST ELEVATION ratio 1:100



B SOUTH WEST ELEVATION ratio 1:100



C NORTH WEST ELEVATION ratio 1:100



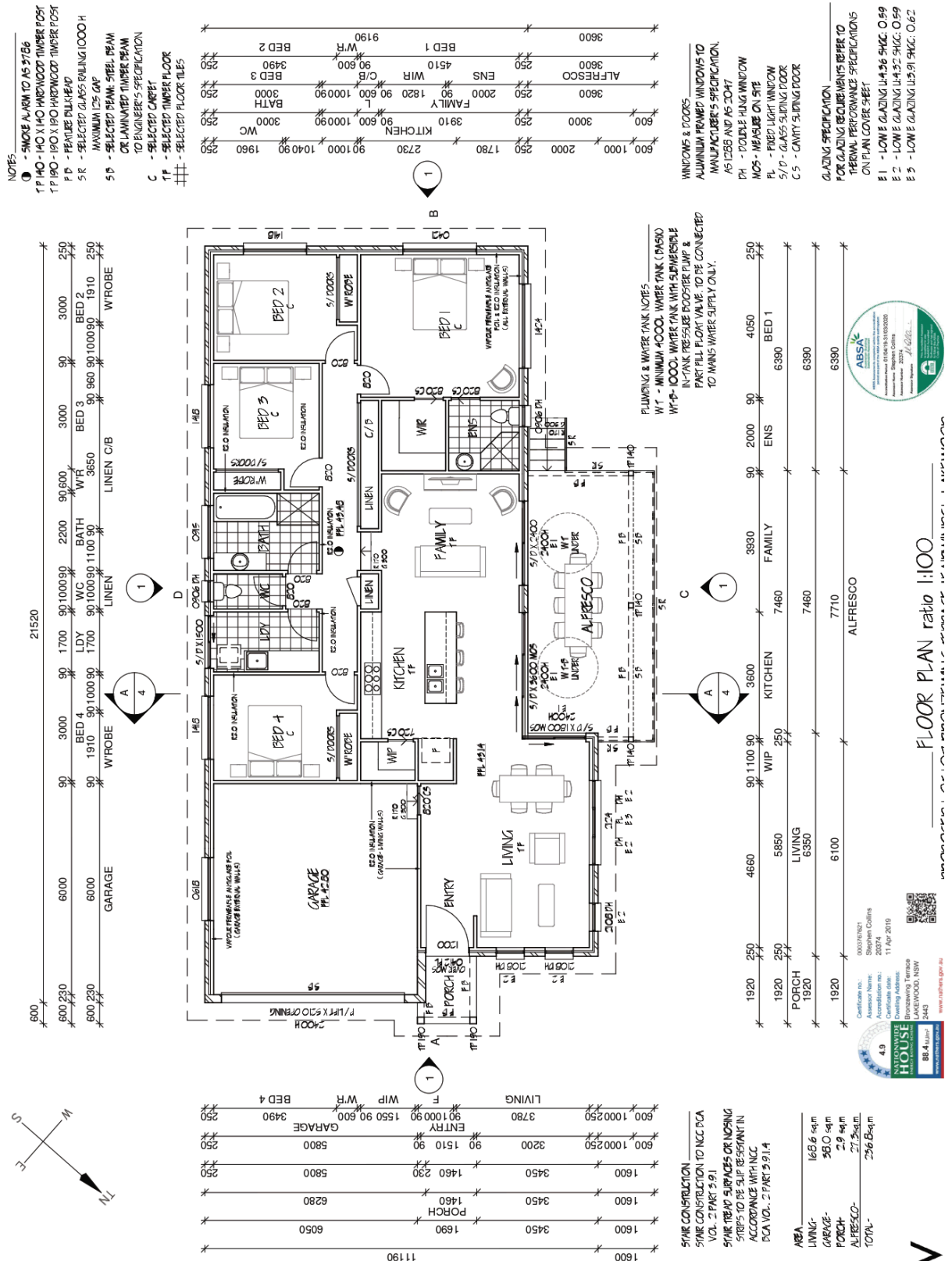
D SOUTH EAST ELEVATION ratio 1:100

ELEVATIONS ratio 1:100



D+W

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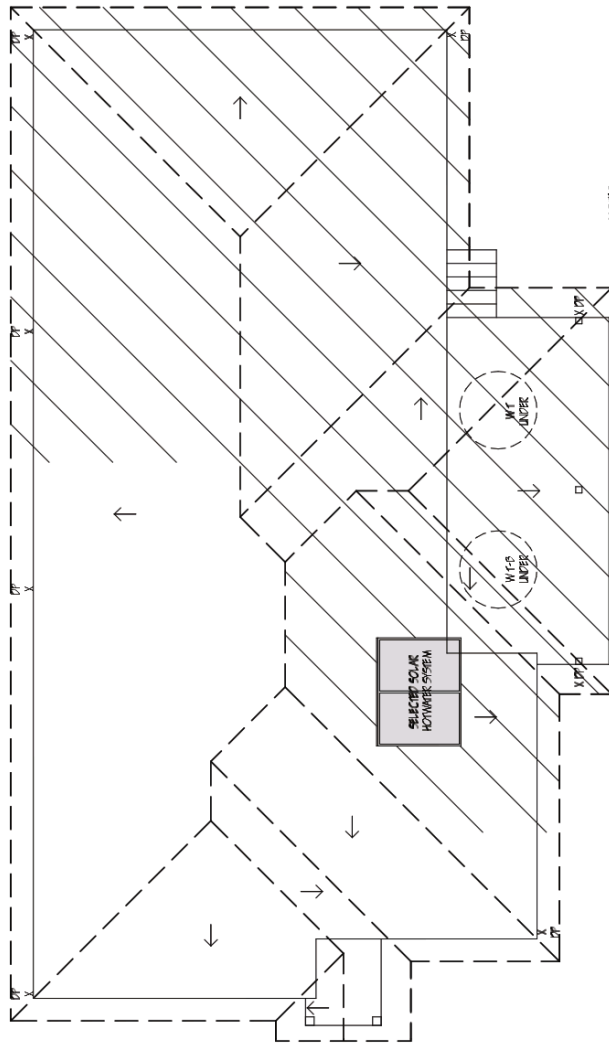


D+W

SUMMARY OF MINIMUM BASIC COMMITMENTS

SEE DWSK CERTIFICATE FOR FULL DEFINITIONS AND DETAILS

LANDSCAPING COMMITMENTS	1250 sqm
WATER COMMITMENTS	
RATING OF ALL INSTALLED SHOWER HEADS	3 STAR (7.5-9L/MIN)
RATING OF ALL INSTALLED TOILET FLUSHING SYSTEMS	3 STAR
RATING OF INSTALLED KITCHEN TAP FIXTURES	4 STAR
RATING OF ALL INSTALLED BATHROOM TAP FIXTURES	4 STAR
ALTERNATIVE WATER COMMITMENTS	
MINIMUM RAINWATER TANK CAPACITY	2000L
MINIMUM AREA OF ROOF DRAINING TO RAINWATER TANK	172.2 sqm
CONNECT RAINWATER TANK TO:	
ALL TOILETS IN THE DEVELOPMENT	
THE COLD WATER TAP THAT SUPPLIES EACH CLOTHES WASHER IN THE DEVELOPMENT	
AT LEAST ONE OUTDOOR TAP	
THERMAL COMFORT COMMITMENTS	
REFER TO THERMAL PERFORMANCE SPECIFICATIONS NOTED ON PLAN COVER SHEET	
ENERGY COMMITMENTS	
HOT WATER SYSTEM	SOLAR (ELECTRIC BOOSTED) MINIMUM 31-35 SCS
ACTIVE COOLING SYSTEM TO:	
AT LEAST ONE LIVING AREA	CEILING FANS
AT LEAST ONE BEDROOM AREA	CEILING FANS
ACTIVE HEATING SYSTEM TO:	
AT LEAST ONE LIVING AREA	NO ACTIVE HEATING SYSTEM
AT LEAST ONE BEDROOM AREA	AT LEAST ONE HEATING SYSTEM
VENTILATION TO:	
AT LEAST ONE BEDROOM	INDIVIDUAL FAN DUCTED TO FACADE OR ROOF
KITCHEN	MANUAL SWITCH ON / OFF INDIVIDUAL FAN DUCTED TO FACADE OR ROOF
LAUNDRY	MANUAL SWITCH ON / OFF NO MECHANICAL VENTILATION
ALL EXHAUST FANS TO BE FITTED WITH FANWIPS COMPLYING WITH NCC	
ARTIFICIAL LIGHTING	
ARTIFICIAL LIGHTING TO BE FLUORESCENT OR LIGHT EMITTING DIODE (LED) IN:	
AT LEAST 4 OF THE BEDROOMS / STUDY	DEDICATED
AT LEAST 3 OF THE LIVING / DINING ROOMS	DEDICATED
THE KITCHEN	DEDICATED
ALL BEDROOMS / TOILETS	DEDICATED
THE LAUNDRY	DEDICATED
ALL HALLWAYS	DEDICATED
APPROVED NON VENTILATED COVER OR SHIELD TO ANY NON-VENTED DOWNLIGHTS IF SELECTED	
WHICH ALLOWS FOR INSULATION TO BE CLOSELY INSTALLED TO SHEETS & TOP OF LIGHTS. THEN	
NO CEILING PENETRATION ALLOWANCE NEED BE MADE. NO ALLOWANCE HAS BEEN MADE FOR	
VENTED DOWNLIGHTS & THESE SHOULD NOT BE INCLUDED.	
COOKING REQUIREMENTS	ELECTRIC COOKTOP & ELECTRIC OVEN
CLOTHES LINE	FIXED OUTDOOR CLOTHES DRYING LINE



NOTES

DP X - DOWNPIPE

TO ROOF AREA DIVERGED

TO RAINWATER TANK

W1 - MINIMUM 4000L WATER TANK (PARK)

W1 - 1000L WATER TANK WITH SELF-IRRIGABLE

IN-TANK PRESSURE BOOSTER PUMP &

PART FULL FLOAT VALVE TO BE CONNECTED

TO MAINS WATER SUPPLY ONLY.

0003767621

Stephen Collins

20374

11 Apr 2019

Certificate no.:

Accreditation no.:

Certifying date:

Dwelling Address:

Bronzewing Terrace

LAKEWOOD, NSW

2443

www.natethers.gov.au

Certificate no.:

Assessor Name:

Accreditation no.:

Certifying date:

Dwelling Address:

Bronzewing Terrace

LAKEWOOD, NSW

2443

www.natethers.gov.au



ROOF LAYOUT PLAN ratio 1:100

D+W



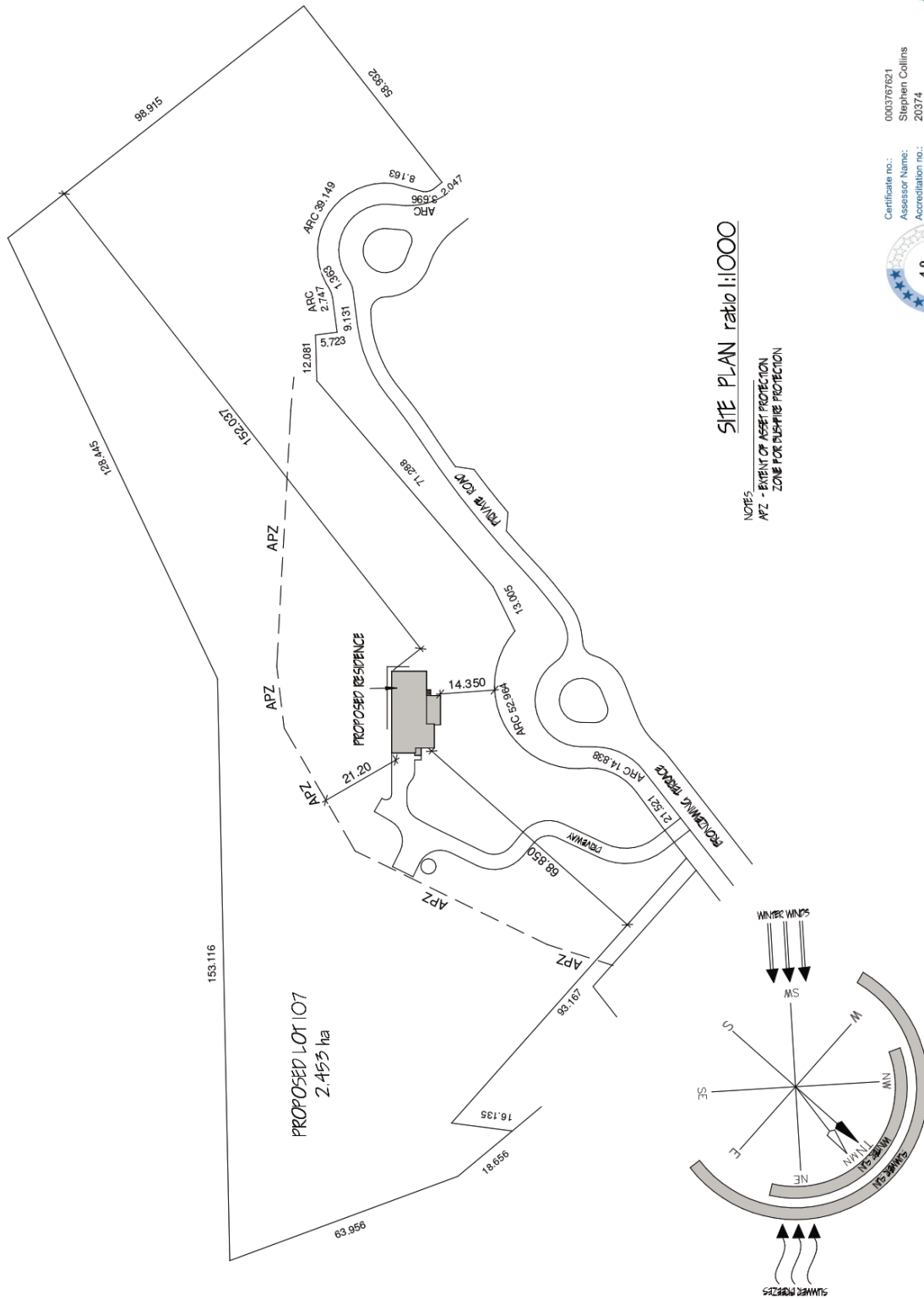
TRUSSES
TRUSS DESIGN DETERMINED USING
COMPUTER SOFTWARE PROVIDED
BY THE TECHNICAL DIVISION WITHIN
PRIMA TRUSS SYSTEM



CONSTRUCTION IN BUSHFIRE PRONE AREA: BAL 29
 CONSTRUCTION TO BAL 29 (BAL - 29) CONSTRUCTION TO 455059 & NCC VOL 2 PART 3.7.4 REQUIRED

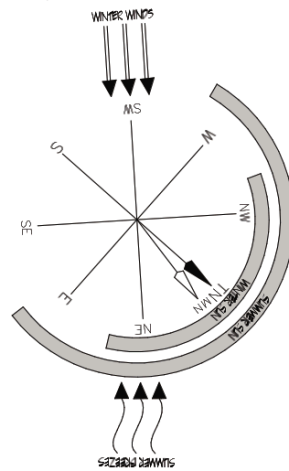
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SITE PLAN ratio 1:1000

NOTES
APZ - EXTENT OF ASSET PROTECTION
ZONE FOR PUBLIC PROTECTION



0003767621
Stephen Collins
20374
11 Apr 2019



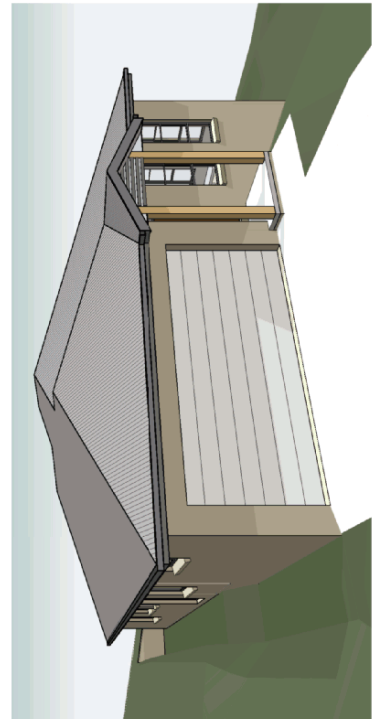
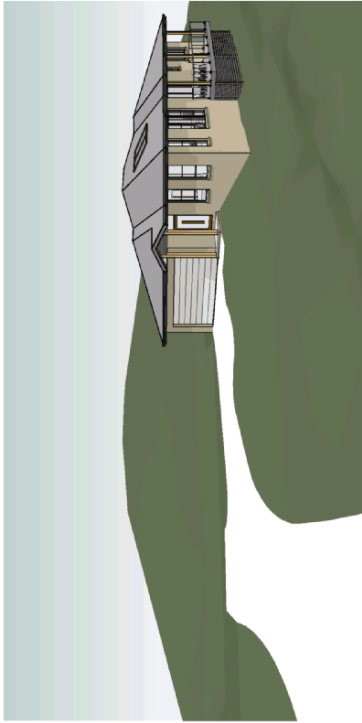
Certificate no.:
Assessor Name:
Accreditation no.:
Certificate date:
Dwelling Address:
Bromswood Terraces
LAKEWOOD, NSW
2443
www.nalibars.gov.au

REVISED 27-6-2019

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D+W

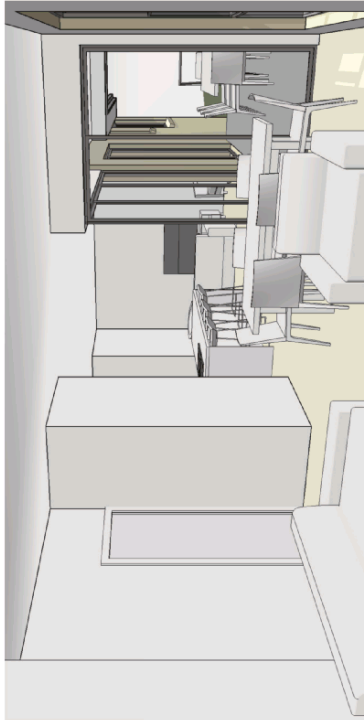
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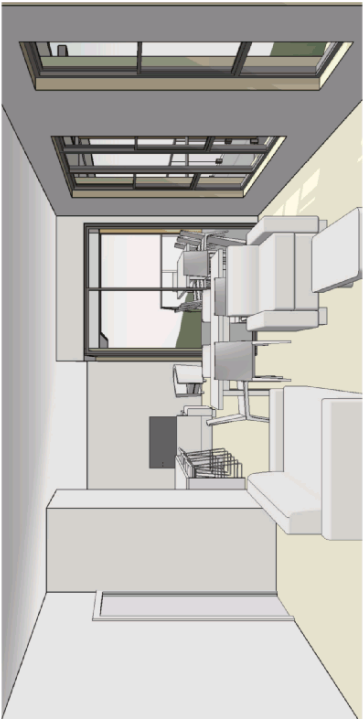
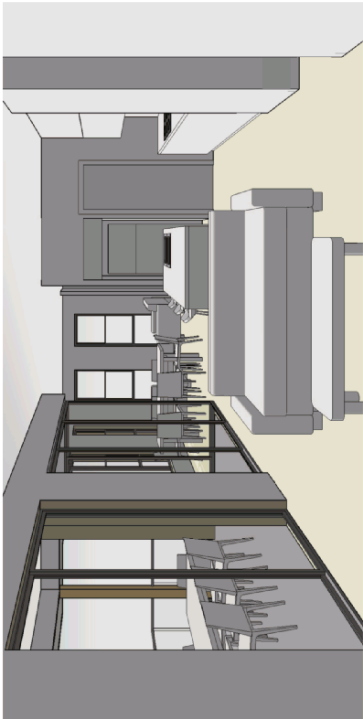
Architectural rendering of a two-story house with a grey roof and tan walls, viewed from the side. The house features a covered side porch with a wooden railing and a small balcony on the upper floor. The background shows a green hillside and a light blue sky.

D+W

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D+W





Arboricultural Impact Assessment Report

**Site location: Proposed Lot 107
Bronzewing Tce Lakewood, 2443**

**Prepared for: Port Ventures Pty Ltd
c/- Davy Watt & Associates**

**Prepared by: Rhys Mackney
Accomplished Tree Management Pty Ltd
5th July 2019 (Revised)**

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Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

EXECUTIVE SUMMARY

This impact assessment has been commissioned by Bevan Davy of Davy Watts and Associates in relation to the proposed development of Lot 107 Bronzewing Tce Lakewood; specifically the installation of a driveway servicing the dwelling, **DA 2009-215**.

It has been indicated that retention of trees regarding the installation of the driveway is paramount to prevent the requirement for additional ecological studies.

The driveway will be 100mm reinforced concrete construction with compacted sub-grade/road base.

A Tree Protection Plan and Tree Protection Plan (drawing) have been prepared and are included in this report.

Summarily it is recommended that all trees discussed within this report should be retained and tree protection measures installed in accordance with AS 4970-2009.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

1. INTRODUCTION

- 1.1 This impact assessment has been commissioned by Bevan Davy of Davy Watts and Associates in relation to the proposed development of Lot 107 Bronzewing Tce Lakewood; specifically the installation of a driveway servicing the dwelling, **DA 2009-215**. See appendix 1 for site map.
- 1.2 I have based this report on my site visit, observations, and the information provided. My conclusions and recommendations are based on my knowledge and experience, details of which are provided in appendix 2.
- 1.3 I carried out a site meeting with the Mr Davy on 6th June 2019 where I was onsite for approximately 40mins. All of my observations were carried out from ground level; I did not carry out any excavations.
- 1.4 A Tree Protection Plan and Tree Protection Plan (drawing) have been prepared and are included in this report.

2. SCOPE OF THE REPORT

- 2.1 This report has been undertaken to meet the following objectives;
- a) Assess the site conditions;
 - b) perform a Preliminary Tree Assessment;
 - c) produce a Tree Protection Plan and Tree Protection Plan (drawing);
 - d) compile an Arboricultural Impact Assessment Report.
- 2.2 Trees in excess of 15 metres from proposed driveway are not considered within this report.

3. INFORMATION UTILISED WITHIN REPORT

Plan Name	Plan #	Drawn By	Date
PROPOSED LOT 107 BRONZEWING TERRACE 'FAIRWINDS', LAKEWOOD. PART SITE PLAN - REVISED		Davy Watt & Associates	26/July/2019

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

5. LIMITATIONS

- 5.1 My observations and recommendations are based on my site inspection. The findings of this report are based on the observations and site conditions at the time of inspection.
- 5.2 The report reflects the subject tree(s) as found on the day of inspection. Any changes to the growing environment of the subject tree(s), or tree management works beyond those recommended in this report may alter the findings of the report. There is no warranty, expressed or implied, that problems or deficiencies relating to the subject tree(s), or subject site may not arise in the future.
- 5.3 Tree identification is based on accessible visual characteristics at the time of inspection. As key identifying features are not always available the accuracy of identification is not guaranteed. Where tree species is unknown, it is indicated with a *spp.*
- 5.4 All diagrams, plans and photographs included in this report are visual aids only, and are not to scale unless otherwise indicated.
- 5.5 Alteration of this report invalidates the entire report.
- 5.6 The ultimate safety of any tree cannot be categorically guaranteed. Even trees apparently free of defects can collapse or partially collapse in extreme weather conditions. Trees are dynamic, biological entities subject to changes in their environment, the presence of pathogens and the effects of ageing. These factors reinforce the need for regular inspections. It is generally accepted that hazards can only be identified from distinct defects or from other failure-prone characteristics of a tree or its locality.
- 5.7 Only the plans referred to above have been used in assessing the impact of the proposed DA on the tree(s). Where recommendations are made in this report including those recommendations contained in the Tree Protection Guidelines it is essential that these recommendations be able to be implemented. Any additional drawings, details or redesign that impact on the ability to do so may negate the conclusions made in this report.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

6. METHODOLOGY

- 6.1 The following information was collected during the assessment of the subject tree(s).
- 6.1.1 Tree common name.
 - 6.1.2 Tree botanical name.
 - 6.1.3 Tree age class.
 - 6.1.4 DBH (Trunk/Stem diameter at breast height/1.4m) - millimetres.
 - 6.1.5 DAB (Trunk/stem diameter directly above root buttress) - millimetres.
 - 6.1.6 Estimated overall height - metres.
 - 6.1.7 Health (see appendix for definition).
 - 6.1.1 Amenity value (see appendix for definition).
 - 6.1.2 Estimated remaining contribution years (SULE)¹
- 6.2 An assessment of the trees condition was made using the visual tree assessment (VTA) model (Mattheck & Breloer, 1994).²
- 6.3 All of my observations were carried out from ground level. I did not carry out any tests on the subject tree(s). I did not carry out any soil tests.
- 6.4 Trunk diameters were measured, Tree height and tree canopy spread was estimated. All other measurements were estimations unless otherwise stated.

7. TREE PROTECTION ZONE METHODOLOGY

- 7.1 The Tree Protection Zone (TPZ) was determined in accordance with Section 3 of the AS4970-2009 Protection of trees on development sites.³
- 7.2 Determining the TPZ involved multiplying each trees DBH x 12. **TPZ = DBH x 12**
- 7.3 Radius of TPZ is measured from centre of stem at ground level. In the case of Multi Stemmed trees the following calculation was performed to attain the TPZ. **Total DBH =**

$$\sqrt{(DBH_1)^2 + (DBH_2)^2 + (DBH_3)^2}$$

¹ Barrell Tree Consultancy, SULE: Its use and status into the New Millennium, TreeAZ/03/2001, <http://www.treeaz.com/>

² Mattheck, C. & Breloer, H., *The body language of trees - A handbook for failure analysis*, The Stationary Office, London, England (1994).

³ Australia, C. O. S., n.d. AS 4970-2009 *Protection of Trees on Development Sites*. s.l.:Standards Australia.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

8. STRUCTURAL ROOT ZONE METHODOLOGY

- 8.1 The Structural Root Zone (SRZ) was determined in accordance with Amendment No. 1 to AS4970—2009 Protection of trees on development sites.

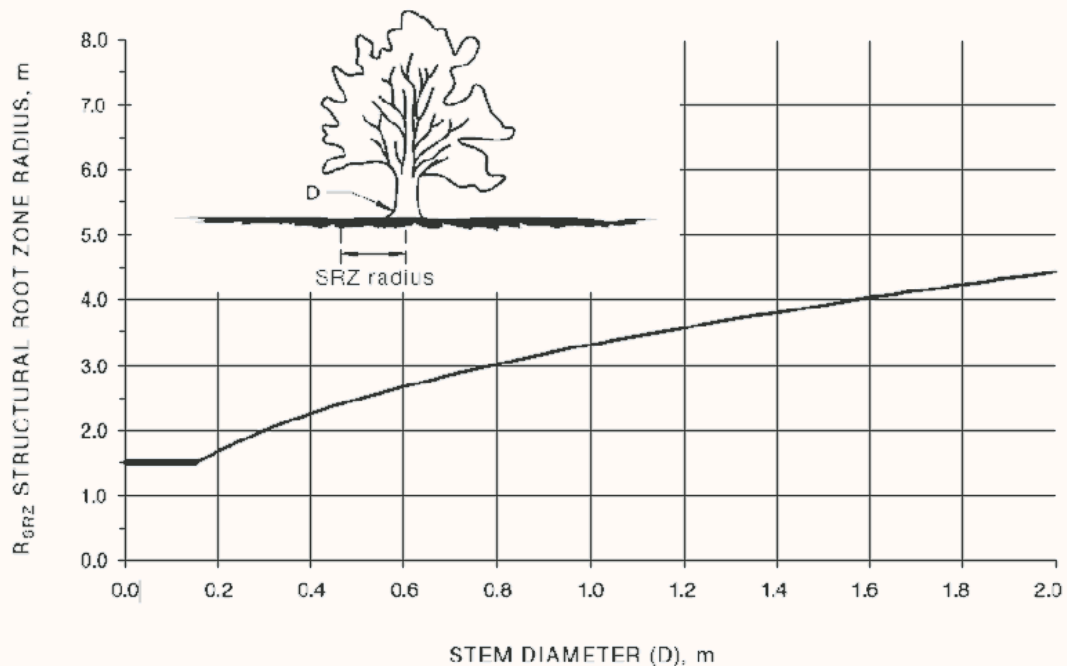


Table 1-Structural Root Zone Calculation

NOTES:

R_{SRZ} is the calculated structural root zone radius (SRZ radius).

D is the stem diameter measured immediately above root buttress.

The R_{SRZ} for trees less than 0.15 m diameter is 1.5 m.

The R_{SRZ} formula and graph do not apply to palms, other monocots, cycads and tree ferns.

This does not apply to trees with an asymmetrical root plate.

Site location: Proposed Lot 107 Bronzewing Tree Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

9. SITE LOCATION AND BRIEF SITE DESCRIPTION

- 9.1 The site is located in the Port Macquarie Hastings Council (PMHC) Local Government Area (LGA) and the subject trees are protected under the PMHC Local Environmental Plan (LEP) 2011 and Development Control Plan (DCP) 2013. It is my understanding that the site and adjoining properties are not located inside a heritage conservation area and do not form part of a heritage item. All tree pruning, removal or significant root pruning is subject to approval by PMHC.

10. OBSERVATIONS

- 10.1 **See Tree Schedule attached as appendix 6.**
- 10.1.1 All trees assessed are believed to be endemic to the area with an age less than or equal to 50 years.
- 10.1.2 The site is essentially north west facing with site topography in a similar direction. Located to the south east is mixed Eucalypt forest.
- 10.1.3 Several of the trees discussed within this report are specie considered strongly associated with Koala habitat.

11. DISCUSSION

11.1 Asset Protection Zone

- 11.1.1 None of my research or information provided by the client states that the property is subject to any requirement for an asset protection zone.
- 11.1.2 The site is contained within a current 10/50 zone and as such some trees located to the south west and south east may qualify for potential removal, however there is no indication at this stage that further removal of trees under this piece of legislation will be conducted notwithstanding the potential for such an outcome in the future (pending completion).

11.2 Tree Removal and Retention

- 11.2.1 It has been indicated that retention of trees regarding the installation of the driveway is paramount to prevent the requirement for additional ecological studies.
- 11.2.2 The driveway would most probably be 100mm reinforced concrete construction with compacted sub-grade/road base.

11.3 Root systems

- 11.3.1 The critical issue when developing adjacent to trees is the impact of that excavation on the root system. To understand this impact, it is important that we understand how the root system functions.
- 11.3.2 All roots start as '**pioneer roots**', pushing their way through the soil in order to take advantage of newly available soil moisture and solutes that are in the zone that they have entered (hence the term pioneer). This push by the roots is created by cell

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

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Date: 5th July 2019 (Revised).

division at the tip of the root and cell elongation behind this tip. This '**zone of elongation**' is typically a few millimetres to less than 100 mm in length.

- 11.3.3 Cell elongation uses water, and the presence or readily available water, solutes (soluble nutrients), and soil temperature (generally around 16°C for most temperate trees) stimulates root growth. Whilst cells absorb some water in the zone of elongation, at best they seldom meet their own needs.
- 11.3.4 Once the roots have fully elongated single celled hairs develop on the surface of the root and these roots with '**root hairs**' to form '**absorbing roots**'.
- 11.3.5 The absorbing roots are responsible for the uptake of nearly all the water and the majority of solutes used by the tree. They are highly ephemeral, often lasting only a few weeks. However, in association with beneficial fungi, they can last a year or more.
- 11.3.6 Where trees are already growing well, we can generally assume that soluble nutrients are present at satisfactory levels. Likewise, we can assume that the soil surface temperature often exceeds 16 degrees Celsius most of the year and that at depth, the soil temperature does not vary significantly throughout the year. The biggest limiting factor, therefore, is normally the ready availability of water.
- 11.3.7 A percentage of these pioneer/absorbing root structures survive the various environmental stresses and within a few weeks to a few months become woody.
- 11.3.8 '**Woody roots**' are essentially underground branches. These roots can be a little under a millimetre in diameter and can grow to be hundreds of millimetres in diameter over time. Their thick bark prevents them from drying out, but as a result, they are not able to absorb water and nutrients from the soil to any great extent.
- 11.4 Whilst many young woody roots die as a result of disease, environmental damage or competition, they have the potential to be long lived, sometimes lasting for hundreds of years. Woody roots act as the connection between the absorbing roots and the rest of the tree.
- 11.4.1 A small portion of the woody roots, closest to the stem, provide physical support for the tree. These '**structural roots**' grow directly from the trunk (first order lateral roots) or are roots that branch close to the trunk. These roots provide support in compression and tension. They have a greater wood content and, as a result, tend to be much thicker to allow for strength, as well as transport.
- 11.4.2 In response to the forces of compression and/or tension, these structural roots develop an asymmetric shape rather than the normal circular shape. As the roots grow further from the trunk, they get rapidly thinner (zone of rapid taper) and more circular in shape.
- 11.4.3 As this soil profile is of clay composition it is reasonable to expect that roots will more closely confined to the surface however this is not definitive and can only be verified by exploratory excavations.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

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Date: 5th July 2019 (Revised).

11.5 Damage to roots

- 11.5.1 Damage to larger roots inside the zone of rapid taper is extremely undesirable and, in most circumstances, should be avoided. These are woody roots and therefore excavation is more significant in its impact than careful constructing over the top of these roots.
- 11.5.2 Depending on the amount of root division, the cutting of a woody root with a diameter of 25mm could conceivably result in the death of many millions of root hairs. This loss of absorbing roots has a direct impact on a tree's ability to absorb water and solutes. In addition, it can impact on hormone production, resulting in reduced growth above ground until the root/foliage ratio is restored to its ideal levels.
- 11.5.3 The loss of roots can result in wilting or thinning of the foliage, the loss of foliage and death of smaller branch-lets and sometimes the death of specific larger branches. The ready availability of soil moisture is important in minimising this impact.
- 11.5.4 Not only do higher soil moisture levels, reduce the energy expended to absorb water, it also stimulates new root development. The faster that sufficient new roots are developed, the less the impact on normal function.
- 11.5.5 Roots are often close to the surface and therefore construction activity can indirectly impact on the health of roots through direct damage or soil compaction. Even regular pedestrian activity has an effect on the roots close to the surface. In addition altering of levels by adding fill has the potential to alter the movement of water into the soil and in some circumstances can cause the soil to become anoxic, in turn causing the death of the roots and potentially the death of the tree.
- 11.5.6 By far the easiest and most efficient way of limiting construction damage to trees is to establish and enclose a Tree Protection Zone using a ridged fence. The function of this fence is to eliminate all construction activity in this area.

11.6 Design Issues

- 11.6.1 The driveway incurs on the Tree Protection Zones of all trees discussed within this report however there is adequate undeveloped space to modify/compensate for the expected disturbance.
- 11.6.2 Major incursions appear to be tree 2 – 15%, tree 3 – 20%, tree 5 – 30% and tree 7 – 23%.
- 11.6.3 Indicative Structural Root Zones have been preserved with each respective tree; having said this, there will be needs for careful excavations and observation of works by a suitably qualified person to prevent/remediate root damage.
- 11.6.4 In the case of tree 5 there is a bias in weight distribution to the north east, which would thus conclude an asymmetrical Structural Root Zone (specifically tension roots) growing in the opposite direction (away from the proposed driveway). The incursion of 30% is probably irrelevant in this instance due to the predicted distribution of roots. Having said this care will need to be taken to assure root damage is managed adequately.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

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Date: 5th July 2019 (Revised).

- 11.6.5 Ovoid root distributions are not an unusual occurrence when considering angiosperms (flowering trees/hardwoods), as trees in this group overwhelmingly rely on tension for structure.

12. METHODS OF TREE PROTECTION

12.1 Protection of tree roots

- 12.1.1 As already explained the purpose of establishing a Tree Protection Zone is more than concerned with protecting the trunk of the tree. A Tree Protection Zone's primary function is the protection of the roots of the tree.
- 12.1.2 The most appropriate method of protecting a tree is to establish an exclusion zone using some form of rigid temporary fence (a Tree Protection Zone or TPZ). Whilst it may seem easier to use flexible fabric barrier fence, these products tend to fail over time and are easily pushed out of the way or damaged.
- 12.1.3 Sometimes, however, it may become necessary to work within or to gain access through a Tree Protection Zone. To do this, we need to develop a method to stop soil compaction and prevent direct physical damage to roots. A simple action such as walking on the same spot half a dozen times or more can lead to soil compaction. Pushing a full wheelbarrow will cause compaction on the first instance. It does not take long for that damage to accumulate and harm the roots of a tree.
- 12.1.4 There are a number of ways to protect roots against compaction and physical damage. We can divide these into two simple groups;

12.2 Systems that share the load

- 12.2.1 Load-sharing surfaces are temporary and usually lightweight systems. Load-sharing surfaces sometimes can be as simple as mulch beneath plywood or planks or the use of scaffolding, to heavier duty systems such as the use of plastic or metal road plates or even rail decking/sleepers.

12.3 Systems that are fully load bearing

- 12.3.1 Fully load-bearing structures include finished structures such as the slab of a building, a driveway or a pathway. Obviously each of these has a limit to the weight that it can bear and if this is exceeded the structure and things beneath it can be damaged. Load bearing systems can also include scaffolding and temporary bridging structures.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

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Date: 5th July 2019 (Revised).

12.4 Protection of the trunk

- 12.4.1 In most instances, establishment of a Tree Protection Zone ensures that the trunk of a tree cannot be damaged. Sometimes, however, work needs to take place within the TPZ and, as a result, there is a risk of impact to the trunk. Damage to the trunk is extremely undesirable. Where it is possible to treat the wound treatment is time critical/consuming. When treatment is not possible or is ineffective a trunk injury can lead to long-term structural and physiological problems. Where possible operating machinery or performing activities that may result in impact to the trunk of the tree should avoided. Where this is not possible, it is important to protect the trunk. Strapping pieces of timber to the trunk of the tree has been the traditional method for achieving this task.
- 12.4.2 Unfortunately and as explained by Newton's Third Law "for every action, there is an equal and opposite reaction" or Conservation of Momentum (as demonstrated by Newton's cradle) tells us that this impact force is simply transferred through the pieces of timber to the trunk of the tree often providing little to no protection and in some circumstances actually resulting in increased damage when considering the orientation of the opposing surface areas that are in direct contact.
- 12.4.3 In response to the failure of timber to absorb impact, hessian or carpet underlay have been used and whilst these improve the situation the timber still lacked the ability to absorb any of the energy. The use of fabric wraps also carried new problems; in particular they often held moisture which when left in situ for prolonged/indefinite periods causes softening of external bark tissues and subsequently allow the entry of pathogens.
- 12.4.4 A more appropriate system needs a hard but flexible outer surface bonded to a soft impact absorbing material that has a low water holding capacity (similar to that of a bicycle helmet). This system is better at absorbing the energy of an impact whilst minimising latent moisture contiguous with localised parts of the tree.
- 12.4.5 Lastly prevention is the best process. When machinery is operating in close proximity to the trunk of a tree using an observer can greatly reduce the likelihood of impact. To be effective the observer should maintain direct visual contact with the tree and the machine and should have direct audio contact with the operator. (Bluetooth® two-way earmuff systems are useful for this task).

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

12.5 **Protection of the canopy**

- 12.5.1 The canopy of the tree is often the part of the tree that is least harmed in the construction process. Even so there are two ways that the construction process can harm the canopy. The first is by direct impact between equipment and the branches of the tree and the second is from incorrect or excessive tree pruning.
- 12.6 Avoiding impact between machinery and branches simply requires care. When machinery needs to operate near branches an independent observer should be used. The observer should maintain direct visual contact with machine and the branches of the tree and should have direct audio contact with the operator.
- 12.6.1 All pruning work should be performed in accordance with the Australian Standard AS 4373-2007 "Pruning of Amenity Trees." Any person who does not fully understand this standard or who is unqualified should not attempt this work. The site arborist may provide instructions to workers on the site on making temporary cuts for later rectification by an arborist. **These instructions should be carefully followed.**

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

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Date: 5th July 2019 (Revised).

13. TREE PROTECTION PLAN/RECOMMENDATIONS**13.1 Design issues**

#	Recommendation	Reason
1.	Heavy equipment is to be retained within the footprint of the driveway.	Incursions into TPZ's are considerable and as such, movements of heavy equipment beyond the confines of the developable area will cause amplified damage.
2.	Excavations within any indicative Tree Protection Zone are to be observed by the project arborist.	To prevent unnecessary damage to tree roots as well as providing opportunity for remediation of roots damaged in development process.
3.	All copies of the plans must include a copy of the Tree Protection Plan (Drawing) and a reference must be made on each and every plan or drawing to "check the Tree Protection Plan (drawing)".	Trades people often read plans rather than notes, including the Tree Management Plan (drawing) in the plan set will help the awareness of all trades people.
4.	Establish a 'tree protection' policy document for inclusion as a part of the site induction process for all staff and contractors to undertake before commencing on site.	Ensuring all site staff and contractors understand the value and importance of protecting the tree reduces the likelihood of accidental damage.

13.2 Pre-construction

5.	In accordance with AS 4970-2009 (section 5.2) a copy of the Tree Protection Plan including the Tree Protection Plan (drawing) (Appendix 7) must be on site prior to any work commencing on the site.	To ensure that documentation is present and available as a reference for all site personnel.
6.	Prior to commencing work on the site, establish Tree Protection Zones around the trees, using a 1.8-metre high rigid temporary fence.	Fences create "no go" zones, show the importance of the trees and help prevent soil compaction and root damage.
7.	Attach two (2) signs to each Tree Protection Zone as detailed in section 5 of the Generic Tree Protection Guidelines attached as appendix 8.	Signs help to remind people why the fence is there and what should not be happening in that zone.
8.	Correct and complete installation of Tree "Protection measures are to be certified by the project arborist" AS 4970-2009 (5.3.2).	This is to ensure the tree protection is correct and completed in accordance with the Tree Protection Plan.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

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Date: 5th July 2019 (Revised).

13.3 During site works

9.	In accordance with AS 4970-2009, (5.4.1) the project arborist should perform regular site inspections. Pending discussion as to build time estimates.	To ensure a suitably qualified person has confirmed that the tree is in good health and the recommendations are being followed.
10.	If at any stage an inspection reveals the Tree Protection Plan has not been complied with the project arborist must specify any required remedial works and the timeframe in which these works must be completed.	To ensure that all problems are appropriately rectified and that any remedial works required are carried out in a timely manner.
11.	If an inspection reveals the Tree Protection Plan (recommendations) have not been followed, weekly inspections may become mandatory to assure compliance.	To avoid repeated or further problems and to ensure the correct and timely performance of remedial works.
12.	Maintain natural ground level within the Tree Protection Zone. Do not trench, stockpile materials or change grades within this zone.	To prevent unnecessary or unauthorised damage to the trunk, roots and branches of the tree.
13.	The Tree Protection Zones must remain in force until construction work is completed.	To ensure that the tree is protected for the duration of the works that may impact on the tree.
14.	Provide notification to the Site Arborist, the Council, and the Certifier not less than 7 days before removing the Tree Protection Fences.	To check to see whether trades remaining on site or landscaping works are likely to adversely impact on the trees.

13.4 Post construction

15.	At practical completion, the project arborist should "assess tree condition and provide certification" that the tree protection works have been in accordance with the Tree Protection Plan.	This is to provide a completion to the document trail for the certifier and or the certifying authority.
16.	"Certification should include a statement on the condition of the retained trees, details of the deviations from the approved tree protection measures and their impacts on (the) trees" and provide specifications for any remedial or rectification works required.	This is to comply with AS 4970-2009 (5.5.2). It provides a documented record of the final condition of the tree. It audits and certifies the correction of any problems.

Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

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Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

14. BIBLIOGRAPHY

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Barrell Tree Consultancy, April 2001. *SULE: Its use and status into the New Millennium*, TreeAZ/03/2001, <http://www.treeaz.com/>.. Sydney, NAAA Conference.

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Mattheck, C. & B. H., 1994. *The Body Language of Trees - A handbook for failure analysis*. Sixth impression (2001) ed. London, U.K.: The Stationery Office.

Port Macquarie Hastings Council - *Tree Preservation Order* (2009).

15. LIST OF APPENDICES

The following are included in the appendices:

Appendix 1 - Site map

Appendix 2 - Brief description of author's qualifications and experience

Appendix 3 - Tree Health categories

Appendix 4 - Structural Condition categories

Appendix 5 - SULE categories

Appendix 6 - Tree Schedule and Explanatory Notes

Appendix 7 - Tree Protection Plan (Drawing)

Rhys Mackney

Consulting Arborist

Accomplished Tree Management Pty Ltd

Diploma of Arboriculture (AQF5)

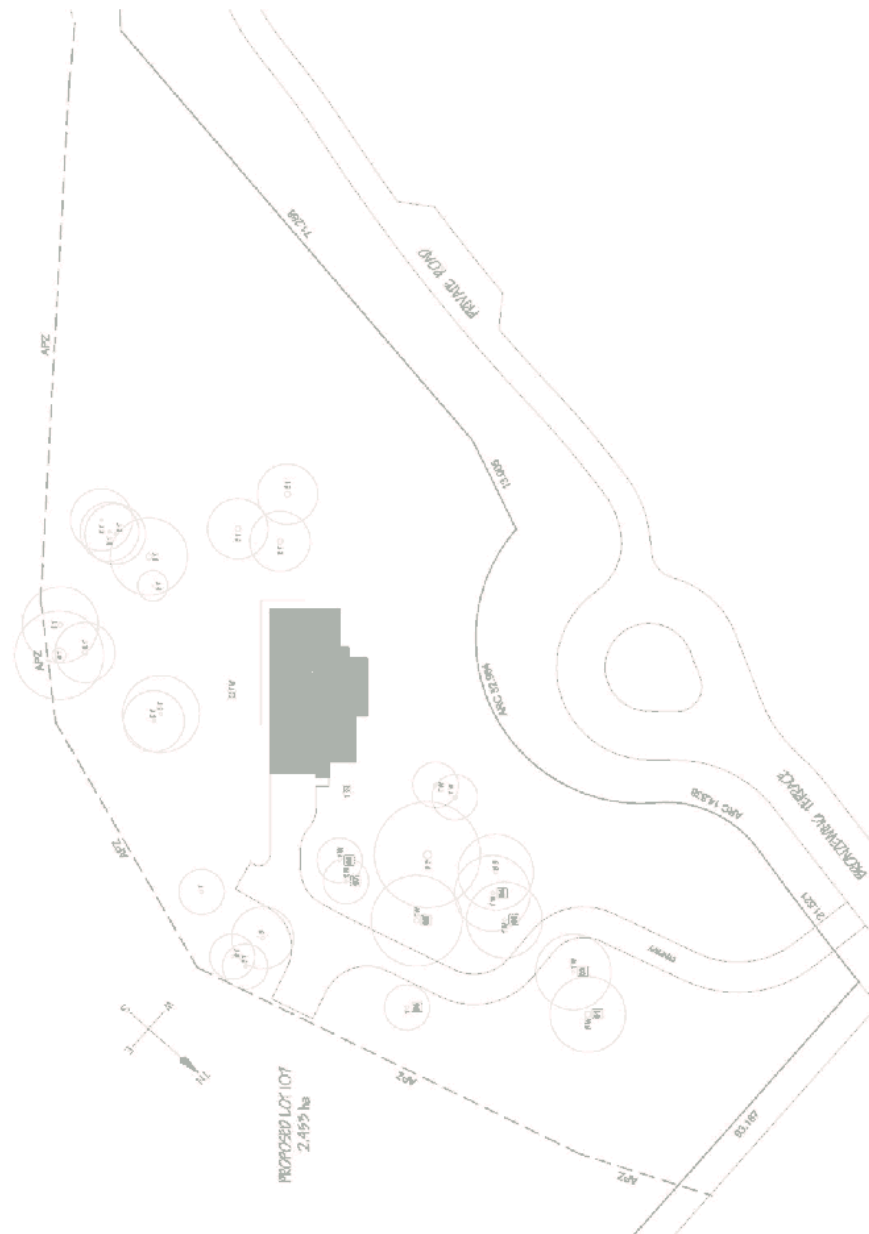
Site location: Proposed Lot 107 Bronzewing Tce Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atreem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

APPENDIX 1 – SITE MAP



Site location: Proposed Lot 107 Bronzewing Ice Lakewood, 2443.

Prepared for: Port Ventures Pty Ltd, c/- Davy Watt & Associates.

Prepared by: Rhys Mackney, Accomplished Tree Management Pty Ltd, info@atrem.com.au, (02) 6583 7631.

Date: 5th July 2019 (Revised).

APPENDIX 2 - BRIEF DESCRIPTION OF AUTHORS QUALIFICATIONS AND EXPERIENCE

Horticultural/Arboricultural Qualifications:

- Certificate II in Horticulture (Arboriculture (AQF2))
- Certificate III in Horticulture (Arboriculture (AQF3))
- Diploma in Horticulture (Arboriculture (AQF5))

2008 to Present - Director of Accomplished Tree Management Pty Ltd:

- Qualified as a consulting arborist in 2015, covering all aspects of written and verbal arboricultural consultancy for commercial and residential clients, including tree condition assessment and development related arborist reports and providing advice in relation to trees and development.
- **2011 to present** - Contract climbing for several companies in addition to private work within the Sydney metro area and more recently (January 2016 onwards) in the Port Macquarie Hastings and surrounding areas. Professional tree work has focused on residential/commercial aspects of arboriculture, predominantly removals and pruning. This in turn has led to further development as a climbing Arborist through greater exposure to skills and techniques utilised within the Arboricultural industry.
- **2008 to 2011** - Maintaining Energy Australia's (Ausgrid's) assets in the Hunter Valley, Gosford and Hornsby contracts for Active Tree Services and later on the Northern Beaches and Upper/Lower North Shore of Sydney for Australian Urban Tree Services. Tree climbing and EWP work involved pruning and removal of trees in either live or de-energised environments. Voltages ranged from Low Voltage – 132KV.
- **2005 to 2008** - Arborist (Leading Hand) Ryde City Council. This included a month's experience working in the role of Tree Management Officer (TMO).
- **2001 to 2005** - Ground Crew/Stump Grinder Operator. Bolans Tree Service.

APPENDIX 3 - PHYSIOLOGICAL CONDITION AND HEALTH

Category	Example Condition	Summary
Good	<ul style="list-style-type: none"> • Crown has good foliage density for species. • Tree shows no or minimal signs of pathogens that are unlikely to have an effect on the health of the tree. • Tree is displaying good vigour and reactive growth development 	<ul style="list-style-type: none"> • The tree is in above average health and condition and no remedial works are required.
Fair	<ul style="list-style-type: none"> • The tree may be starting to dieback or have over 25% deadwood. • Tree may have slightly reduced crown density or thinning. • There may be some discolouration of foliage. • Average reactive growth development. • There may be early signs of pathogens which may further deteriorate the health of the tree. • There may be epicormic growth indicating increased levels of stress within the tree. 	<ul style="list-style-type: none"> • The tree is in below average health and condition and may require remedial works to improve the trees health
Poor	<ul style="list-style-type: none"> • The may be in decline, have extensive dieback or have over 30% deadwood. • The canopy may be sparse or the leaves may be unusually small for species. • Pathogens or pests are having a significant detrimental effect on the tree health. 	<ul style="list-style-type: none"> • The tree is displaying low levels of health and removal or remedial works may be required.
Dead	<ul style="list-style-type: none"> • The tree is dead or almost dead. 	<ul style="list-style-type: none"> • The tree should generally be removed.

APPENDIX 4 - STRUCTURAL CONDITION

Category	Example Condition	Summary
Good	<ul style="list-style-type: none"> • Branch unions appear to be strong with no sign of defects. • There are no significant cavities. • The tree is unlikely to fail in usual conditions. • The tree has a balanced crown shape and form. 	<ul style="list-style-type: none"> • The tree is considered structurally good with well developed form.
Fair	<ul style="list-style-type: none"> • The tree may have minor structural defects within the structure of the crown that could potentially develop into more significant defects. • The tree may have a cavity that is currently unlikely to fail but may deteriorate in the future. • The tree is an unbalanced shape or leans significantly. • The tree may have minor damage to its roots. • The root plate may have moved in the past but the tree has now compensated for this. • Branches may be rubbing or crossing. 	<ul style="list-style-type: none"> • The identified defects are unlikely to cause major failure. • Some branch failure may occur in usual conditions. • Remedial works can be undertaken to alleviate potential defects.
Poor	<ul style="list-style-type: none"> • The tree has significant structural defects. • Branch unions may be poor or weak. • The tree may have a cavity or cavities with excessive levels of decay that could cause catastrophic failure. • The tree may have root damage or is displaying signs of recent movement. • The tree crown may have poor weight distribution which could cause failure. 	<ul style="list-style-type: none"> • The identified defects are likely to cause either partial or whole failure of the tree.

APPENDIX 5 - SAFE USEFUL LIFE EXPECTANCY (SULE) (BARRELL TREE CONSULTANCY, APRIL 2001)

A tree's safe useful life expectancy is determined by assessing a number of different factors including the health and vitality, estimated age in relation to expected life expectancy for the species, structural defects, and remedial works that could allow retention in the existing situation.

Category	Description
1. Long - Over 40 years	<ul style="list-style-type: none"> (a) Structurally sound trees located in positions that can accommodate future growth. (b) Trees that could be made suitable for retention in the long term by remedial tree care. (c) Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.
2 Medium - 15 to 40 years	<ul style="list-style-type: none"> (a) Trees that may only live between 15 and 40 more years. (b) Trees that could live for more than 40 years but may be removed for safety or nuisance reasons. (c) Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting. (d) Trees that could be made suitable for retention in the medium term by remedial tree care.
3. Short - 5 to 15 years	<ul style="list-style-type: none"> (a) Trees that may only live between 5 and 15 more years. (b) Trees that could live for more than 15 years but may be removed for safety or nuisance reasons. (c) Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting. (d) Trees that require substantial remedial tree care and are only suitable for retention in the short term.
4 Remove - Under 5 years	<ul style="list-style-type: none"> (a) Dead, dying, suppressed or declining trees because of disease or inhospitable conditions. (b) Dangerous trees because of instability or recent loss of adjacent trees. (c) Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form. (d) Damaged trees that are clearly not safe to retain. (e) Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting. (f) Trees that are damaging or may cause damage to existing structures within 5 years. (g) Trees that will become dangerous after removal of other trees for the reasons given in (a) to (f). (h) Trees in categories (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.
5 Small/Young	<ul style="list-style-type: none"> (a) Small trees less than 5m in height. (b) Young trees less than 15 years old but over 5m in height. (c) Formal hedges and trees intended for regular pruning to artificially control growth.

APPENDIX 6:

Tree Schedule and Explanatory Notes

TREE SCHEDULE 1/2

TREE #	AGE	SPECIES	COMMON NAME	Overall Height (m)	CANOPY SPREAD	DBH (m)	TPZ (m-R)	DAB (m)	SRZ (m-R)	HEALTH	Structural Condition	SULE	Retention Value	COMMENTS	RECOMMENDATION
01	Mature	<i>Corymbia gummifera</i>	Red Bloodwood	22	18	.6	7.2	.7	2.8	Fair	Good	2a	M	Minor Incursion	Preserve
02	Mature	<i>Eucalyptus microcorys</i>	Tallow Wood	22	15	.5	6	.6	2.7	Fair	Good	2a	M	Incursion 15% Excavations to be observed by arborist	Preserve
03	Mature	<i>Eucalyptus microcorys</i>	Tallow Wood	20	14	.6	7.2	.7	2.8	Fair	Good	2a	M	Incursion 20% Excavations to be observed by arborist	Preserve
04	Mature	<i>Eucalyptus microcorys</i>	Tallow Wood	22	14	.6	7.2	.7	2.8	Fair	Good	2a	M	Minor Incursion	Preserve
05	Mature	<i>Eucalyptus microcorys</i>	Tallow Wood	25	16	.9	10.8	1	3.3	Good	Good	2a	M	Incursion 30% Excavations to be observed by arborist	Preserve
06	Mature	<i>Syncarpia glomulifera</i>	Turpentine	12	8	.4	4.8	.5	2.8	Fair	Good-Fair	3a	L	Incursion 11%	Preserve

Site location: Proposed Lot 107 Bronzewing Ice Lakewood, 2443.

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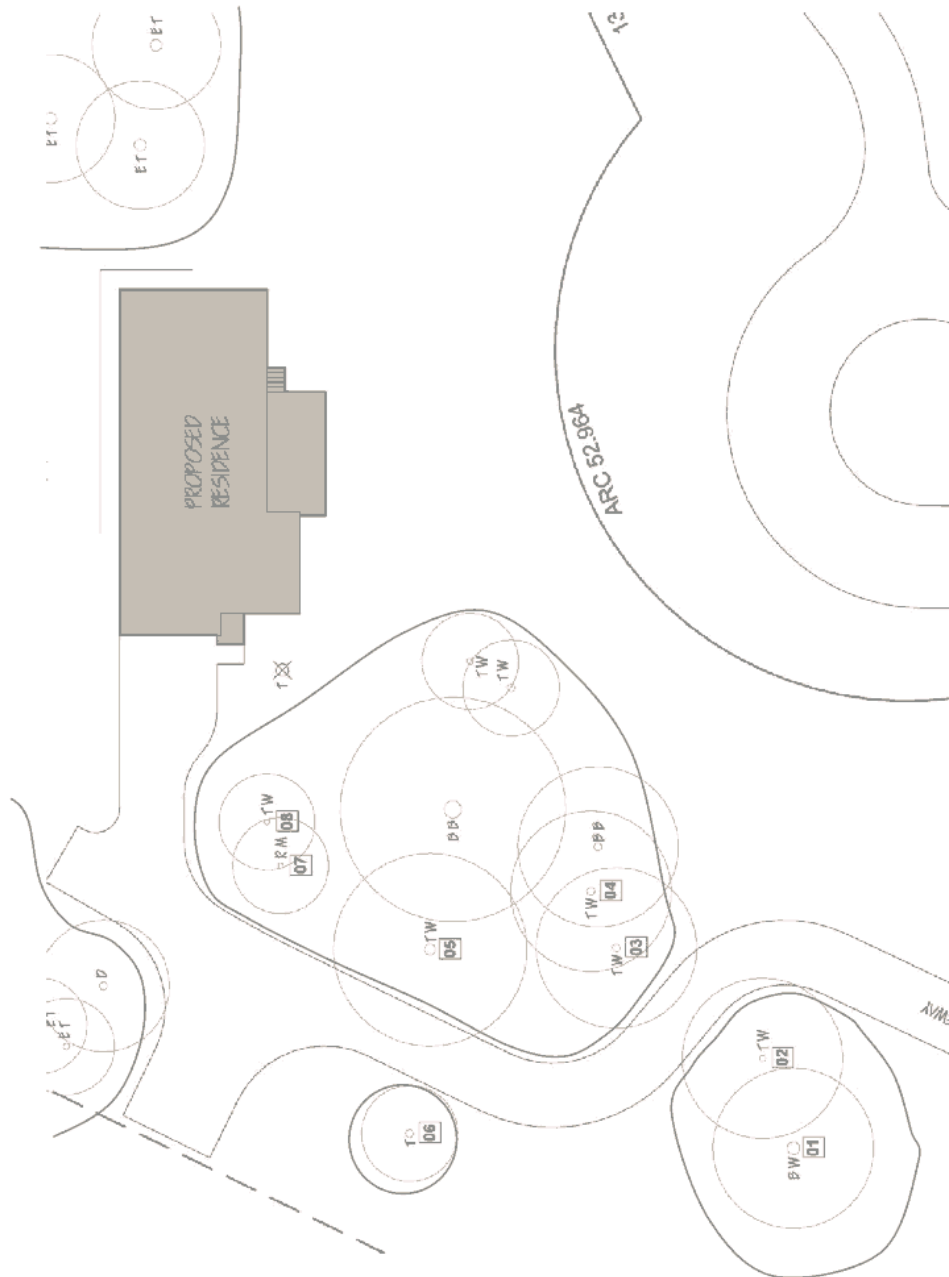
TREE #	AGE	SPECIES	COMMON NAME	Overall Height (m)	CANOPY SPREAD	DBH (m)	TPZ (m-R)	DAB (m)	SRZ (m-R)	HEALTH	Structural Condition	SULE	Retention Value	COMMENTS	RECOMMENDATION
07	Mature	<i>Eucalyptus resinifera</i>	Red Mahogany	22	14	.9	10.8	1	3.3	Fair	Good	2a	M	Incursion 23% Excavations to be observed by arborist	Preserve
08	Mature	<i>Eucalyptus microcorys</i>	Tallow Wood	20	14	.8	10.8	.9	3.2	Good	Good	2a	M	Minor incursion	Preserve

EXPLANATORY NOTES

Age	Age class according to overall size/canopy volume/live canopy ratio/presence of hollows or lack thereof
Scientific Name/Common Name	Identification is made on the basis of visual features visible from ground level at the time of inspection
Height (m)	Estimated - however, generally comparative to other trees
Spread (m)	Estimated - paced out
DBH (cm)	Trunk diameter - measured or approximated at 1.4m above ground
	Est - Estimated equivalent trunk diameter where multiple trunks and branching exist
	E = Essential - Site suitability 40 plus years, good condition, able to be retained without design changes
	H = High - Site suitability 40 plus years fair condition or better able to be retained with minor design changes
	M = Moderate - Site suitability 20 - 40 years, or only retainable with moderate impact on the development of the site
Retention Value	L = Low - Site suitability less than 20 years, or retention impacts significantly on development of the site
	N = Nil - Site suitability less than 5 years, or retention sterilises development of site
	Note: Site suitability considers health, life expectancy, risk of harm, desirability of species and impacts on current and proposed land use. Impact on development needs to be considered throughout the planning stage
Health	See appendix 3
Structural Condition	See appendix 4
SULE	See appendix 5
Recommendations	Unless otherwise stated trees are to be retained

APPENDIX 7:

Tree Protection Plan (Drawing)



APPENDIX 8 – GENERIC TREE PROTECTION GUIDELINES**16. PRE-CONSTRUCTION**

- 16.1 Prior to the commencement of construction, the consulting Arborist will issue a report outlining the following:
 - 16.1.1 The trees that have been protected, the maintenance activities (if any) for each tree that have already been performed, that the protective fence or fences have been installed in accordance with the Arborist's Report.
 - 16.1.2 A statement that the physical protection (Section 4 of the AS 4970-2009) of the trees has been performed, to the above standards or if not, any non-conformances and why. E.g. the fences surrounding trees are incomplete because of boundary fences.
 - 16.1.3 All trees to be removed are to be marked with a single white line around the trunk. No tree shall be so marked until council consent for its removal has been given.
 - 16.1.4 Prior to removal one of the following will confirm the tree is to be removed by marking the tree with a single horizontal yellow or orange line. One of the following persons, Surveyor, Landscape Architect, Arborist, Project Manager, and Tree Preservation Officer, should do this.

17. TREE PROTECTION ZONES

- 17.1 The trees are to be protected by a 1.8 metre high fence to be constructed within 500mm of any construction activity and to include as much of the Primary Root Zone as possible.
- 17.2 Where the Tree Protection Zone occurs impart on the adjacent property, the fence will stop at the boundary lines.
- 17.3 Provision will be made to these protection zones for pedestrian access only.

18. MAINTENANCE ACTIVITIES

- 18.1 The following maintenance activities will be required for this site:
 - 18.2 Irrigation – by hand to comply with current specifications
 - 18.3 Soil Amelioration
 - 18.4 Mulching
 - 18.5 Crown cleaning in accordance with AS 4373-2007
 - 18.6 Pruning of Amenity Trees, removal of trees by sectional felling and stump grinding
 - 18.6.1 Tree Removal Timing: Maintenance activities are to be at the commencement of the construction process by qualified Arborists and then as required during the construction period.
 - 18.7 Irrigation:
 - 18.7.1 Soil moisture during construction shall be maintained at not less than 60% of field capacity.

- 18.7.2 Irrigation is to be applied by hand. No construction activities are to take place within the Primary Root Zone until irrigation has been initiated and soil moisture reaches 70% of field capacity at a depth of 300mm.
- 18.7.3 On each visit, the consulting arborist shall check the soil moisture and manually check the irrigation system, when installed.
- 18.7.4 Soil moisture levels should be checked by physical touch or with a tensiometer.
- 18.8 Soil Amelioration:
 - 18.8.1 An application of rooting hormones, humic acids, soil micro-flora and mycorrhizae may be applied by an arborist in accordance with the manufacturer's instructions.
 - 18.8.2 Chemical/synthetic fertilisers are to be used only after representative soil testing and based on the soil scientist's recommendations.
- 18.9 Mulching:
 - 18.9.1 The fenced area should be mulched with seed free mulch to a depth of at least 50mm.
- 18.10 Weed Control:
 - 18.10.1 Weed control shall be by hand pulling, wiping or spraying with a glyphosate based herbicide. Material likely to be root grafted to trees to be retained shall be removed manually.
 - 18.10.2 Weed control shall not be performed by mechanical cultivation or by scraping or back burning.
- 18.11 Crown Cleaning:
 - 18.11.1 Crown cleaning (AS4373-1996, Pruning of Amenity Trees) shall be performed in accordance with the standard, by an arborist and in compliance with the appropriate occupational health and safety regulations. All branches down to 50mm in size shall be inspected and appropriately treated.
 - 18.11.2 Any concerns about health or safety that are observed by the arborist on the site will be reported in writing within 7 days to the superintendent/principal/client and/or head contractor.
 - 18.11.3 The use of spurs on live trees and inter-nodal cutting is strictly prohibited.
- 18.12 Tree Removal and Stump Grinding:
 - 18.12.1 Remove trees in a controlled or sectional felling to avoid any damage to the trees to be retained.
 - 18.12.2 All shrubs, under-scrub and woody weeds that are to be removed shall be removed by hand as per 3.5 above.
 - 18.12.3 No tree shall be removed unless it has been marked with a horizontal white and yellow/orange line around the trunk.

19. FENCES

- 19.1.1 The fencing of the Tree Protection zone as defined in section 4.3 of the AS 4970-2009, should be commenced prior to the commencement of ANY work, including demolition and land clearing by earth moving machinery but may be erected after tree maintenance activities.

- 19.1.2 The fence surrounding the Tree Protection Zone must be a rigid fence not less than 1.8m high.

20. SIGNS

- 20.1 At least every 25 metres attached to all tree protection fences there shall be a sign, a minimum of 600mm x 600mm, bearing the following phrase in red letters on white background at least 50mm in height:

“TREE PROTECTION ZONE – KEEP OUT”

- 20.2 On the same sign above or on a separate sign attached adjacent, in red lettering on white background not less than 25mm in height is to be the following:

“PROHIBITED ACTIVITIES”

- 20.3 Followed by the list below in black letters not less than 15mm in height.
- a) Entry of machinery or people.
 - b) Storage of building materials.
 - c) Parking of any kind.
 - d) Erection or placement of site facilities.
 - e) Removal or stockpiling of soil or site debris.
 - f) Disposal of liquid waste including paint and concrete wash.
 - g) Excavation or trenching of any kind (including irrigation or electrical connections).
 - h) Attaching any signs or any other objects to the tree.
 - i) Placing of waste disposal or skip bins.
 - j) Pruning and removal of branches, except by a qualified Arborist.
- 20.4 In letters not less than 25mm in height on the above sign should be the name of the supervising Arborist or arboricultural company or other appropriate contact and a contact phone number.

21. ROOT SEVERANCE

- 21.1 All roots greater than 50mm in diameter that are required to be removed shall be cleanly cut and kept moist at all times and shall not be left exposed to the air for more than 10 to 15 minutes.

22. MAINTENANCE REPORTS

- 22.1 Fortnightly inspections and monthly reports should be made until the end of construction.
- 22.2 A consulting Arborist should be on site during any excavation work within the Structural Root Zone and will report on that work in the monthly report.
- 22.3 A site log shall be maintained and include the date of each inspection, the person who performed the inspection, the items inspected or tested, the maintenance activities performed, any repairs undertaken or required to be undertaken, and any substantial breaches or non-conformances.
- 22.4 The arborist performing the inspection should sign the entries in the logbook
- 22.5 The log shall be maintained on site or alternatively copies of the log entries for the month shall be submitted each month with the monthly report.
- 22.6 All maintenance shall continue for the 3 months after completion of construction.

23. NON-CONFORMANCE REPORTS

- 23.1 The following are non-conformances that need to be managed when they occur.
 - 23.1.1 The removal or relocation closer to the tree of all or part of any protective fence prior to landscaping.
 - 23.1.2 The performing of any activity noted as prohibited on protection zone signage
 - 23.1.3 The failure to maintain adequate soil moisture or the failure in the operation of the irrigation system.
 - 23.1.4 Mechanical damage to the trunk, stems, branches, or retained roots.
 - 23.1.5 The sudden and abnormal or premature shedding or decline of the tree.
- 23.2 Substantial breaches and non-conformances:
 - 23.2.1 Any breach or non-conformance of the tree protection zone, by any party, shall be notified in writing within 2 working days of it being first observed.
 - 23.2.2 Notification of any non-conformance should be made in writing to the site foreman, the consent authority and any independent certifier.

Item: 06

Subject: DA2017 - 16.2 MODIFICATION TO DUAL OCCUPANCY- WINDOW ALTERATIONS AT LOT 2 DP1241566, NO. 5 BLACK CAVIAR PARADE, PORT MACQUARIE

Report Author: Development Assessment Planner, Fiona Tierney

Applicant: BDM Constructions
Owner: K A & A J & M A Bell
Estimated Cost: \$1000
Parcel no: 67636

Alignment with Delivery Program

4.3.1 Undertake transparent and efficient development assessment in accordance with relevant legislation.

RECOMMENDATION

That modification to DA 2017 - 16.2 to modify windows in living room of dwelling 2 at Lot 2, DP 1241566, No. 5 Black Caviar Parade, Port Macquarie, be determined by granting consent subject to the recommended conditions (as modified).

Executive Summary

This report considers a Section 4.55(1A) modification of development consent application at the subject site and provides an assessment in accordance with the Environmental Planning and Assessment Act 1979.

Following exhibition of the application, one submission was received.

This report recommends that the request to modify the development consent (D2017-16.2) be approved subject to the amended conditions included in **Attachment 1**.

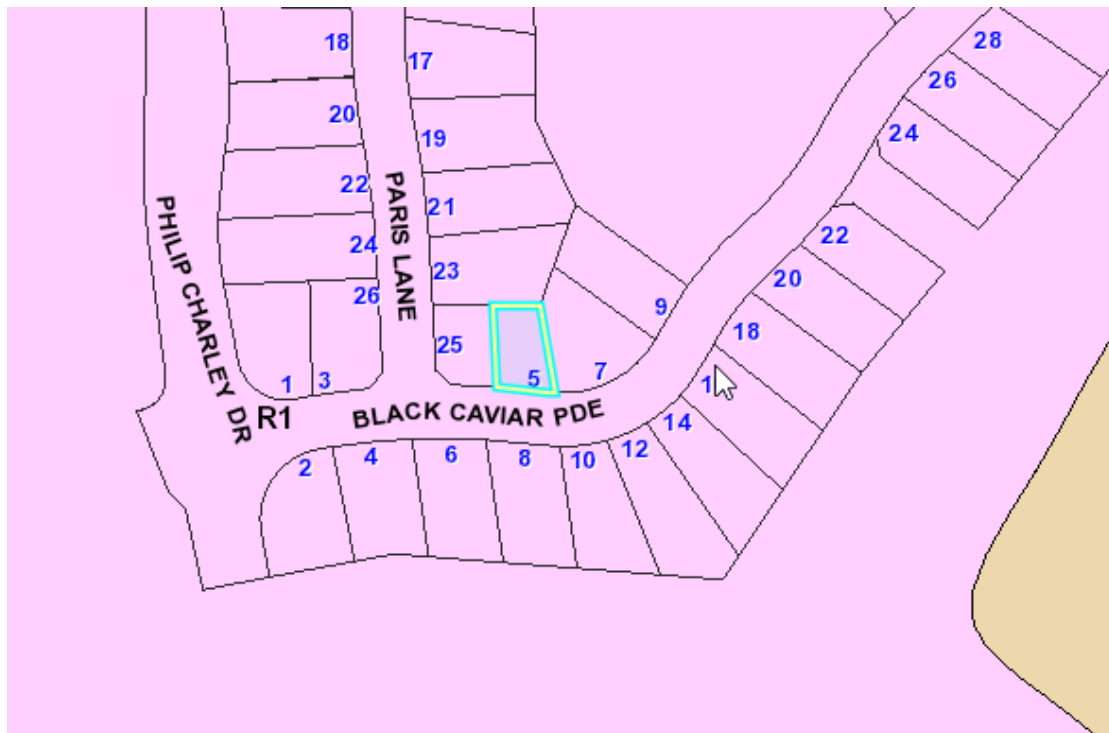
1. BACKGROUND

History

The original development application was approved under delegated authority on 11 May 2017. The proposal was for a dual occupancy and Torrens Title subdivision. One dwelling (at site now known 25 Paris Lane) was constructed and completed and subdivision issued. The second dwelling (the subject of this modification) is currently nearing completion and awaiting issue of occupation certificate.

Existing sites features and surrounding development

The site is zoned R1- General Residential in accordance with the Port Macquarie-Hastings Local Environmental Plan 2011, as shown in the following zoning plan:



The existing subdivision pattern and location of existing development within the locality is shown in the following aerial photograph:



2. DESCRIPTION OF DEVELOPMENT

Key aspects of the proposed modification include the following:

- Increased window size from highlight windows to larger lower sill height windows in living room area in eastern elevation of dwelling 2.

Refer to attachments at the end of this report.

Application Chronology

- 5 April 2019 - Modification application lodged.
- 15 April -1 May 2019 – Application notified.
- 1 April 2019- Request to applicant - screen provision options
- 29 April 2019 – Submission received.

2. STATUTORY ASSESSMENT

Section 4.55 of the Environmental Planning and Assessment Act 1979 enables the modification of consents and categorises modification into three categories - 4.55(1) for modifications involving minor error, mis-description or miscalculation; 4.55(1A) for modifications involving minimal environmental impact; and 4.55(2) for other modifications. Each type of modification must be considered as being substantially the same to that which was originally consented to.

Is the proposal substantially the same?

The subject application is being considered under the provisions of Section 4.55(1A). The proposal is considered to be substantially the same development to that which was originally consented to and will have minimal environmental impact. Having regard to the above principles, the proposed modification is not considered to alter the fundamental essence of the original development.

Does the application require notification/advertising in accordance with the regulations and/or any Development Control Plan?

Neighbour notification has been undertaken.

Any submissions made concerning the modification?

One submission has been received following completion of the neighbour notification period. The submission is considered later in this report.

Any matters referred to in section 4.15(1) relevant to the modification?**Section 4.15(1) Matters for Consideration**

In determining the application, Council is required to take into consideration the following matters as are relevant to the development that apply to the land to which the development application relates:

(a) The provisions (where applicable) of:

•

(a)(i) Any environmental planning instrument

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

A revised BASIX certificate (number 793851M_02) has been submitted demonstrating that the modified proposal will comply with the requirements of the SEPP.

(ii) Any Development Control Plan in force

Port Macquarie-Hastings Development Control Plan 2013

The relevant provisions of this plan are addressed as follows:

	Requirements	Proposed	Complies
3.2.2.5	Side setbacks: • Ground floor = min. 0.9m	Setback to the eastern side boundary remains unchanged.	Yes
3.2.2.10	Privacy: • Direct views between living areas of adjacent dwellings screened when within 9m radius of any part of window of adjacent dwelling and within 12m of private open space areas of adjacent dwellings. ie. 1.8m fence or privacy screening which has 25% max. openings and is permanently fixed • Privacy screen required if floor level > 1m height, window side/rear setback (other than bedroom) is less than 3m and sill height less than 1.5m • Privacy screens provided to balconies/verandahs etc which have <3m side/rear setback and floor level height >1m	Windows have overlooking into rear yard areas but not into adjoining living area windows. Applicant has installed screens attached to fence that vary in height from 2.3m to 2.7m. Fig a Whilst these are well done and pleasing in appearance they do create a large expanse of timber structure that can be overbearing and create undesirable precedents.	No-recommend lower half of window to be screened and condition of consent applied. Fig b.



Fig. a. Current Screens on fence -> 2.7m b. Possible screen alternative



c. View from adjoining neighbour yard- no screens in place

(iiiia) Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4

No planning agreement has been offered or entered into.

iv) Any matters prescribed by the Regulations:

No matter prescribed by the regulations apply.

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, social and economic impacts in the locality:

No adverse impacts will result from development as modified.

(c) The suitability of the site for the development:

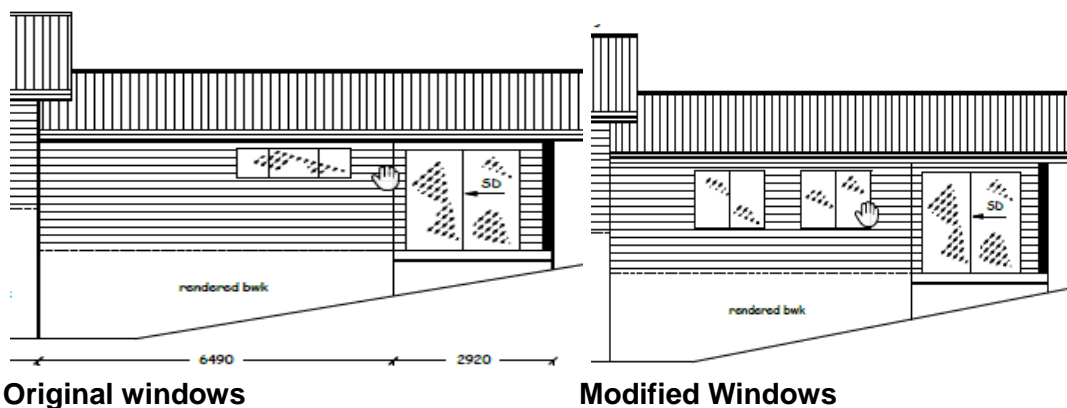
The proposal consists of the enlargement of windows in an area previously approved as a living room to provide additional light and outlook to this room. The proposal is suitable for the site.

(d) Any submissions made in accordance with this Act or the Regulations:

One (1) written submission has been received following public exhibition of the application.

Key issues raised in the submission received and comments in response to these issues are provided as follows:

Submission Issue/Summary	Planning Comment/Response
Windows have been changed so that they now overlook property, living area and bathroom.	<p>Due to the changes in levels between properties there is unavoidable overlooking between properties. The enlargement of the windows has increased the loss of privacy and it is recommended that screening be provided.</p> <p>Whilst the timber screens have been provided they do create an undesirable impact in regards to dominance and appearance. It is recommended that smaller half height screens be installed external to the windows that still allow light but prevent immediate routine overlooking in the utilisation of the room.</p>

**(e) The Public Interest:**

The proposed development satisfies relevant planning controls and will not adversely impact on the wider public interest.

4. DEVELOPMENT CONTRIBUTIONS APPLICABLE

No changes for this proposed modification.

5. CONCLUSION AND STATEMENT OF REASON

The application has been assessed in accordance with Section 4.55 of the Environmental Planning and Assessment Act 1979.

Issues raised during assessment and public exhibition of the application have been considered in the assessment of the application. Where relevant, a conditions has been recommended to manage the impacts attributed to these issues.

The site is considered suitable for the proposed modified development and the proposal adequately addresses relevant planning controls. The development is not considered to be contrary to the public's interest and will not result a significant adverse social, environmental or economic impact. It is recommended that the modification application be approved, subject to the recommended conditions of consent provided in the attachment section of this report.

Attachments

- 1 [View](#). DA2017 - 16.2 Modification of Consent
- 2 [View](#). DA2017 - 16.2 Plans

Port Macquarie Hastings Council
PO Box 84
Port Macquarie
NSW Australia 2444
DX 7415
e council@pmhc.nsw.gov.au

ABN 11 238 901 601



>>Insert date<<

Parcel Number: 67636

BDM Constructions
PO Box 550
WAUCHOPE NSW 2446

Dear Sir/Madam

DA 2017/16.2 - Modification of Consent Pursuant to Section 4.55 (1A) of the Environmental Planning & Assessment Act 1979

I refer to your application dated 5 April 2019 to modify living room windows in dwelling 2as part of previous approved dual occupancy and torrens title subdivision under DA 2017/16 at LOT: 2 DP: 1241566 5 Black Caviar Parade PORT MACQUARIE.

Please be advised that pursuant to Section 4.55 (1A) of the Act, your application to modify the consent has been granted, subject to:

- A. Add the following conditions as outlined in modified consent:
 - E(9)
- B. Reimposition of all other previously approved conditions of consent as originally determined 11 May 2017 and as modified with this approval dated >>insert date<<.

The applicant is advised that Section 8.9 of the Act confers on an applicant who is dissatisfied with the determination, right of appeal to the Land and Environment Court.

A revised schedule of development consent conditions is attached.

Yours sincerely

Apply electronic signoff

pmhc.nsw.gov.au

PORT MACQUARIE OFFICE

WAUCHOPE OFFICE

LAURIETON OFFICE



SCHEDULE OF CONDITIONS ATTACHED TO THIS CONSENT

The conditions of consent referred to in the Notice of Determination for DA No 2017/16 are as follows:

1>	Modification 1	>>insert date<<
----	----------------	-----------------

PRESCRIBED CONDITIONS

The development is to be undertaken in accordance with the prescribed conditions of Part 6 - Division 8A of the *Environmental Planning & Assessment Regulations* 2000

A – GENERAL MATTERS

- (1) (A001) The development is to be carried out in accordance with the plans and supporting documents set out in the following table, as stamped and returned with this consent, except where modified by any conditions of this consent.

Plan / Supporting Document	Reference	Prepared by	Date
Architectural Plans & Specifications	Job 2016-33 E4151.06D2	Whiteze Drafting Services And revised East and South elevations By Roger Veness for storage/workshop area under	December 2018
SOEE		Perry Cassell	2/9/2017
BASIX	793851M_02	Concept Designs Australia	12 December 2018
Bushfire		David Pensini Building Certification and Environmental Services	September 2016

In the event of any inconsistency between conditions of this development consent and the plans/supporting documents referred to above, the conditions of this development consent prevail.

- (2) (A002) No work shall commence until a Construction Certificate has been issued and the applicant has notified Council of:

- the appointment of a Principal Certifying Authority; and
- the date on which work will commence.

Such notice shall include details of the Principal Certifying Authority and must be submitted to Council at least two (2) days before work commences.



- (3) (A003) The proponent shall submit an application for a Subdivision Certificate for Council certification with all relevant documentation.
- (4) (A004) An application for a Construction Certificate will be required to be lodged with Council prior to undertaking subdivision works and a Subdivision Certificate is required to be lodged with Council on completion of works.
- (5) (A007) The development must only proceed in accordance with the approved stages as set out below:
- Stage 1-Dwelling 1 and Subdivision in accordance with the Draft Linen and 88b restriction for construction of approved dwellings
 - Stage 2-Dwelling 2 (Note: this consent allows separate construction of each dwelling and issue of the appropriate Occupation Certificates subject to compliance with the relevant conditions at the release of each stage.)

Unless specified, the conditions of this consent will apply to all stages, with any decision on any discrepancy with conditions and associated staging resting with Council. Any decision to allow a change to staging will rest with Council along with applicable conditions and any contributions payable.

- (6) (A008) Any necessary alterations to, or relocations of, public utility services to be carried out at no cost to council and in accordance with the requirements of the relevant authority including the provision of easements over existing and proposed public infrastructure.
- (7) (A009) The development site is to be managed for the entirety of work in the following manner:
1. Erosion and sediment controls are to be implemented to prevent sediment from leaving the site. The controls are to be maintained until the development is complete and the site stabilised with permanent vegetation;
 2. Appropriate dust control measures;
 3. Building equipment and materials shall be contained wholly within the site unless approval to use the road reserve has been obtained. Where work adjoins the public domain, fencing is to be in place so as to prevent public access to the site;
 4. Building waste is to be managed via an appropriate receptacle;
 5. Toilet facilities are to be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
 6. Building work being limited to the following hours, unless otherwise permitted by Council;
 - Monday to Saturday from 7.00am to 6.00pm
 - No work to be carried out on Sunday or public holidaysThe builder to be responsible to instruct and control his sub-contractors regarding the hours of work.

- (8) (A011) The design and construction of all public infrastructure works shall be in accordance with Council's adopted AUSPEC Specifications.
- (9) (A013) The general terms of approval from the following authorities, as referred to in section 93 of the Environmental Planning and Assessment Act



1979, and referenced below, are attached and form part of the consent conditions for this approval.

- **NSW Rural Fire Service** - The General Terms of Approval, Reference D17/265 DA17012505812WS and dated 20 April 2017, are attached and form part of this consent.

- (10) (A057) The applicant is to ensure the proposed development will drain to the existing point of connection to Council's sewerage system.

B – PRIOR TO ISSUE OF A CONSTRUCTION CERTIFICATE

- (1) (B001) Prior to release of the Construction Certificate, approval pursuant to Section 68 of the Local Government Act, 1993 to carry out water supply, stormwater and sewerage works is to be obtained from Port Macquarie-Hastings Council. The following is to be clearly illustrated on the site plan to accompany the application for Section 68 approval:
 - Position and depth of the sewer (including junction)
 - Stormwater drainage termination point
 - Easements
 - Water main
 - Proposed water meter location
- (2) (B003) Submission to the Principal Certifying Authority prior to the issue of a Construction Certificate detailed design plans for the following works associated with the developments. Public infrastructure works shall be constructed in accordance with Port Macquarie-Hastings Council's current AUSPEC specifications and design plans are to be accompanied by AUSPEC DQS:
 1. Sewerage reticulation.
- (3) (B008) This consent approves the staging of the subdivision subject to:
 - a. the applicant supplying an updated staging plan when lodging a Construction Certificate application showing each of the preceding stages and the proposed stages of the subdivision;
 - b. compliance with any other conditions of consent in relation to the staging of works.
- (4) (B010) Payment to Council, prior to the issue of a Construction Certificate or Subdivision Certificate, whichever occurs first, of the Section 94 contributions set out in the "Notice of Payment – Developer Charges" schedule attached to this consent unless deferral of payment of contributions has been approved by Council. The contributions are levied, pursuant to the Environmental Planning and Assessment Act 1979 as amended, and in accordance with the provisions of the following plans:
 - Hastings S94 Administration Building Contributions Plan
 - Hastings Administration Levy Contributions Plan
 - Community Cultural and Emergency Services Contributions Plan 2005
 - Hastings S94 Major Roads Contributions Plan
 - Hastings S94 Open Space Contributions Plan
 - Innes Peninsula



The plans may be viewed during office hours at the Council Chambers located on the corner of Burrawan and Lord Streets, Port Macquarie, 9 Laurie Street, Laurieton, and High Street, Wauchope.

The attached "Notice of Payment" is valid for the period specified on the Notice only. The contribution amounts shown on the Notice are subject to adjustment in accordance with CPI increases adjusted quarterly and the provisions of the relevant plans. Payments can only be made using a current "Notice of Payment" form. Where a new Notice of Payment form is required, an application in writing together with the current Notice of Payment application fee is to be submitted to Council.

- (5) (B011) As part of Notice of Requirements by Port Macquarie-Hastings Council as the Water Authority under Section 306 of the Water Management Act 2000, the payment of a cash contribution, prior to the issue of a Construction Certificate or subdivision certificate, whichever occurs first, of the Section 64 contributions, as set out in the "Notice of Payment – Developer Charges" schedule attached to this consent unless deferral of payment of contributions has been approved by Council. The contributions are levied in accordance with the provisions of the relevant Section 64 Development Servicing Plan towards the following:
- augmentation of the town water supply headworks
 - augmentation of the town sewerage system headworks
- (6) (B024) Submission to Council of an application for water meter hire, which is to be referred to the Water Supply section so that a quotation for the installation can be prepared and paid for prior to the issue of a Construction Certificate. This application is also to include an application for the disconnection of any existing service not required.
- (7) (B038) Footings and/or concrete slabs of buildings adjacent to sewer lines or stormwater easements are to be designed so that no loads are imposed on the infrastructure. Detailed drawings and specifications prepared by a practising chartered professional civil and/or structural engineer are to be submitted to the Principal Certifying Authority with the application for the Construction Certificate.
- (8) (B046) The building shall be designed and constructed so as to comply with the Bush Fire Attack (BAL) 12.5 requirements of Australian Standard 3959 and the specifications and requirements of Planning for Bush Fire Protection. Details shall be submitted to the Principal Certifying Authority with the application for Construction Certificate demonstrating compliance with this requirement.
- Please note: Compliance with the requirements of Planning for Bush Fire Protection 2006 to prevail in the extent of any inconsistency with the Building Code of Australia.
- (9) (B057) The existing sewer including junction and/or stormwater drainage shall be located on the site and the position and depth indicated on the plans which accompany the application for the Construction Certificate.
- (10) (B195) Design certification will be required on the drawings,
e.g., "Design certification - this is to certify that the design of piers within the zone of influence of the existing sewer main and/ or inter-allotment drainage



is adequate to support the structure without any additional loads on the sewer main. And inter-allotment drainage as required under AUSPEC D 12.

- (11) (B196) Council records indicate that the development site has an existing 20mm metered water service from the 100mm PVC water main on the opposite side of Paris Lane. The existing water service can be adopted for Stage 1 with only a water meter being required. A second metered water service will be required for Stage 2 from the existing 150mm PVC water main on the same side of Black Caviar Parade. The engineering plans accompanying the application are acceptable for Water Supply Section purposes.
- (12) (B197) Council records indicate that there are 150mm gravity sewer mains along the east and southern boundaries of the development site. The existing junction will be able to service Stage 2 with a new sewer junction required to service Stage 1. The building will be close to or over the gravity sewer main along the eastern boundary. Details of the proposed courtyard fencing are required and if proposed to be masonry, then structural engineer's details will be required as well as structural details of the building foundations. The engineering plans accompanying the application are not acceptable for Sewer Section purposes.

C – PRIOR TO ANY WORK COMMENCING ON SITE

- (1) (C011) Work associated with the construction of a new building shall not commence until a water meter provided by the Council has been installed on the site.
- (2) (C013) Where a sewer manhole exists within a property, access to the manhole shall be made available at all times. Before during and after construction, the sewer manhole must not be buried, damaged or act as a stormwater collection pit. No structures, including retaining walls, shall be erected within 1.0 metre of the sewer manhole or located so as to prevent access to the manhole.
- (3) (C004) Prior to works commencing an application being made to the electricity and telecommunications service providers. Services are required to be underground.

D – DURING WORK

- (1) (D003) The site is in an area known to contain rock that may contain naturally occurring asbestos (NOA). Should potential NOA be located on site notification shall be provided to Council and Workcover prior to works proceeding. No work shall recommence until a NOA management plan has been approved by Council or Workcover.
- (2) (D006) A copy of the current stamped approved construction plans must be kept on site for the duration of site works and be made available upon request to either the Principal Certifying Authority or an officer of the Council.
- (3) (D007) A survey certificate from a registered land surveyor is to be submitted to the Principal Certifying Authority at footings and/or formwork stage. Such certificate shall set out the boundaries of the site, the actual situation of the



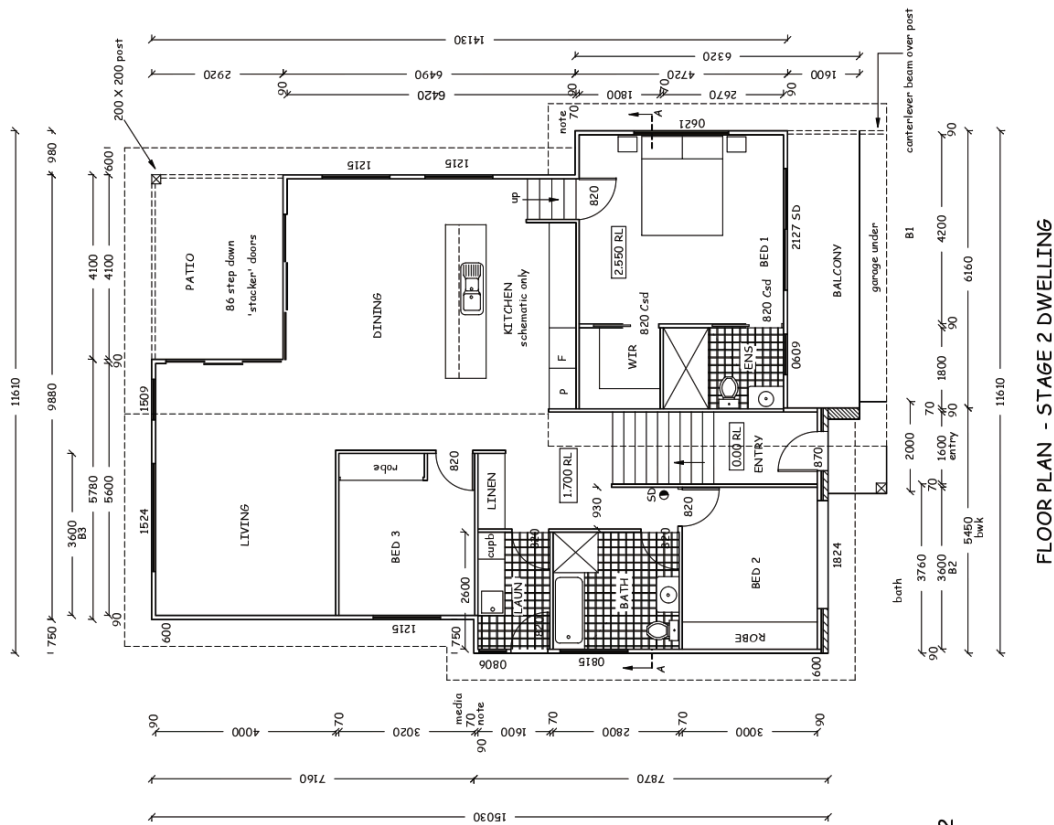
buildings and include certification that siting levels comply with the approved plans.

E – PRIOR TO OCCUPATION OR THE ISSUE OF OCCUPATION CERTIFICATE

- (1) (E001) The premises shall not be occupied or used in whole or in part until an Occupation Certificate has been issued by the Principal Certifying Authority.
- (2) (E015) Prior to occupation or issue of an Occupation Certificate, details of compliance with the bushfire risk assessment is to be provided to the Principal Certifying Authority.
- (3) (E051) Prior to occupation or the issuing of any Occupation Certificate a section 68 Certificate of Completion shall be obtained from Port Macquarie-Hastings Council.
- (4) (E058) Written confirmation being provided to the Principal Certifying Authority (PCA) from any person responsible for the building works on the site, stating that all commitments made as part of the BASIX Certificate have been completed in accordance with the certificate.
- (5) (E082) Submission of a compliance certificate accompanying Works as Executed plans with detail included as required by Council's current AUSPEC Specifications. The information is to be submitted in electronic format in accordance with Council's "CADCHECK" requirements detailing all infrastructure for Council to bring in to account its assets under the provisions of AAS27. This information is to be approved by Council prior to issue of the Subdivision or Occupation Certificate. The copyright for all information supplied, shall be assigned to Council.
- (6) (E195) (E056) A Certificate of Compliance under the provisions of Section 307 of the Water Management Act must be obtained prior to the issue of any occupation or subdivision certificate. The application for the certificate is to include a copy of the Work-as-Executed plan and Registered Surveyor's Linen Plan.
- (7) (E196) The subdivision certificate shall not be issued until such time that the dwellings associated with this development are substantially commenced (as determined by Council) or where a strata management statement, or restriction as to user, prohibits any dwelling on each lot other than the dwelling approved as part of this consent.
- (8) The courtyard fence is to be a maximum 1.8m high of lightweight construction and 50% open materials.
- (9) The living room windows in the eastern elevation of dwelling 2 are to be provided with half height (externally fixed) screens or half height opaque window treatment minimum extending 450mm from the bottom of the window sill.¹

F – OCCUPATION OF THE SITE

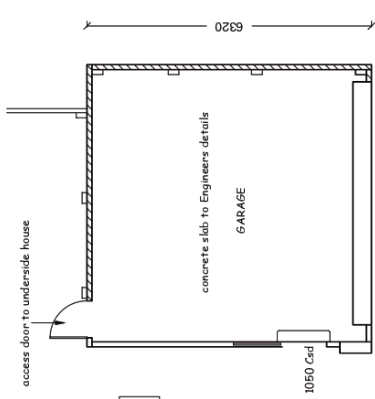
- (1) (F004) The dwellings are approved for permanent residential use and not for short term tourist and visitor accommodation.
- (2) The lower ground storage area/ workshop is not to be used for habitable, commercial or industrial purposes.



FLOOR PLAN - STAGE 2 DWELLING

Slab Footing Construction Notes
Concrete slabs & footings to be in accordance with AS2870
Strip underside area of all topsail, debris & organic matter
If earthworks reveal ground anomalies including rock or questionable material, an engineering inspection must be carried out
Edge rebates not less than 20mm & external masonry must not overhang slab by more than 15mm
Vapour barrier under slabs 200um medium impact resistant branded polythene film with laps not less than 200mm at all joints. Tape & seal with a close fitting sleeve around all service penetrations

Timber Wall Framing
In accordance with AS1684.2-1999
Timber wall framing generally 70/90 x 35 MGP 10 pine with 70/90x 45 top plates to loadbearing walls & studs at 600 centres with one row noggings
Non loadbearing walls 70x35 MGP 10 pine with studs at 600 centres with 1 row noggings



Floor Area - 201.45M2

Bulk & Scale
The max height of external walls not including gables when measured vertically from the junction of the wall with the roof, gutter or eaves to a point on the existing ground level immediately below shall not exceed 6.0m
The max height of the roof when measured at any point above the existing ground level immediately below shall not exceed 8.0m

Windows
Windows to be aluminium powercoat finish manufactured & installed in accordance with:
* AS2047-1995 Australian Window Code
* AS4055-1995 Wind Load for Housing
* AS1288-1994 Residential Guides for Bathroom Windows
* AS1770-Part 2 & AS2048 Australian Installation Standards

Brickwork
Brickwork to be articulated in accordance with AS3700
Galvanised steel lintels to AS 1650
Lintel spurs to comply with certified span & loading tables
Control joints in unbroken walling more than 10m in length positioned min 600mm & max 3000mm from corner
Weep holes to be provided at 1200mm centres

Termite Protection
BCA 3.1.3.1.8 acceptable construction practice requires compliance to satisfy requirement P2.1
The intent is to provide for a termite barrier that will ensure that termites will not enter a building by a concealed route

1. Termimesh system by approved installer to concrete slabs
2. Termiguard chemical system by approved installer
3. Continuous antcap to floor perimeter walls, isolated antcaps to piers.

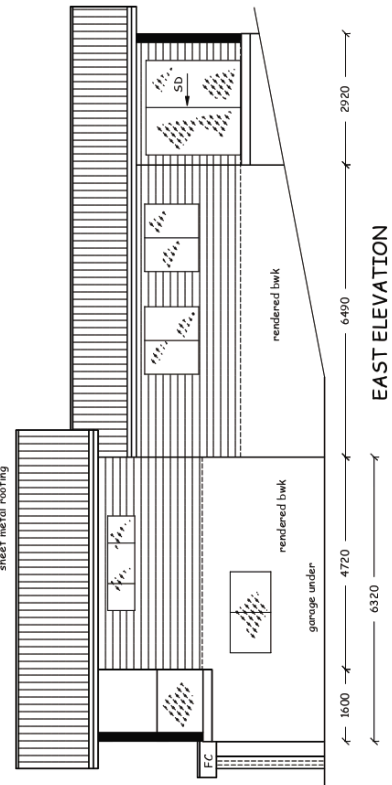
NOTE: all internal timber frame walls 70mm EXCEPT cavity sliders - 90mm

Roofing
Roofing to comply with BCA Part 3.5.1. Roof Cladding
Colourbond zincalume custom orb roofing fixed to timber battens 900 end span 1200 intermediate span
Refer to "Using Lysaght Roofing & Walling" for detailed installation recommendations

Roof Framing
Engineered timber roof trusses designed to AS1720.1
Always refer to Manufacturers engineering drawings

Amendment to previous approved DA
Lot 229 DP 1218524 Building Envelope 227.8 SQM

Proposed New Residence For BDM Constructions Cnr Paris Lane & Black Caviar Parade Port Macquarie			
Drawing FLOOR PLAN	Job No. 2016 - 33	Sheet No. 2 OF 5	Issue A3
Date December 2018	Scale 1 : 100	DRAWN BY : Gaz White Drafting Port Macquarie Phone 65 825821 mobile 0437 907383 Email cadnongaz@gmail.com	

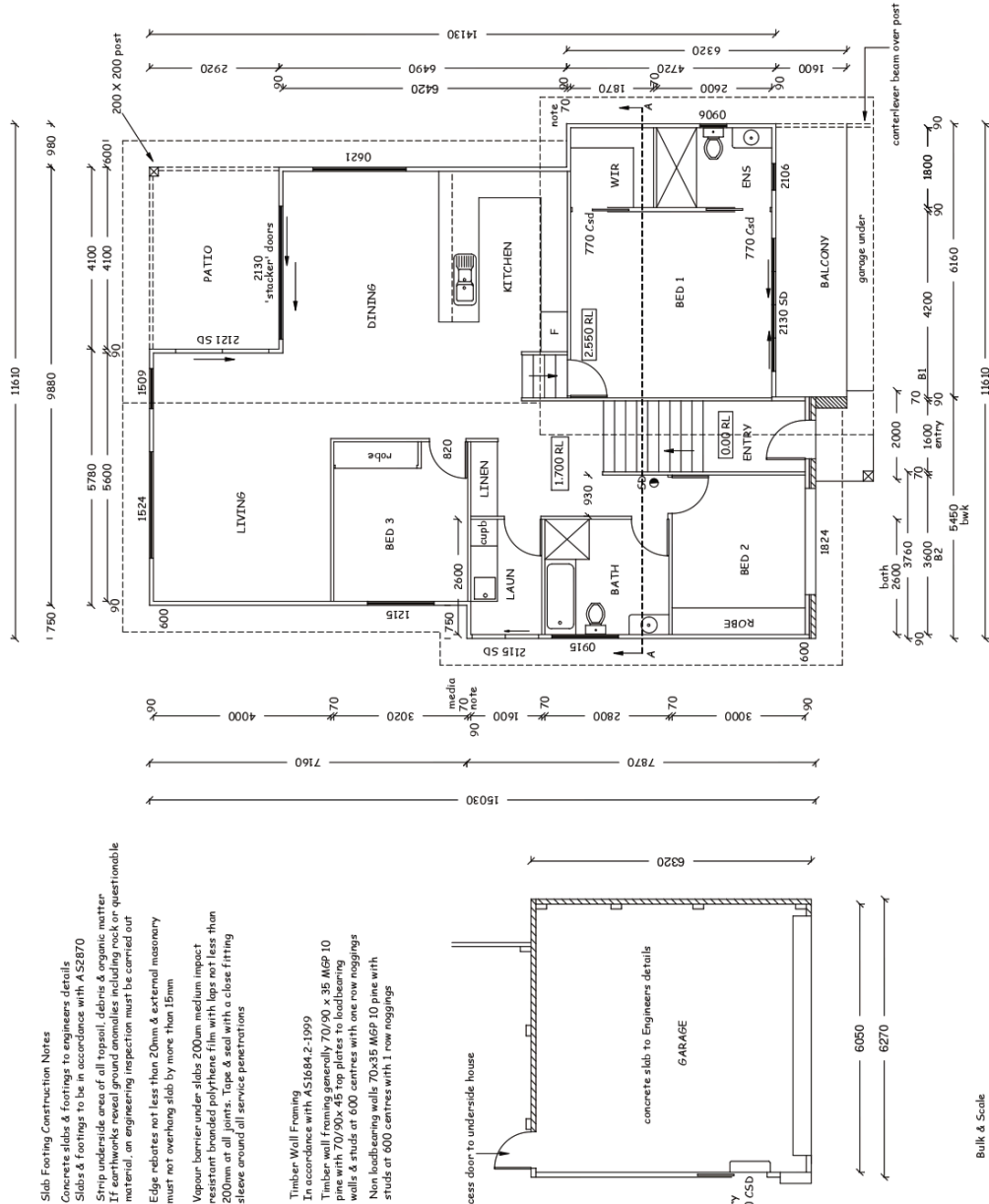


Amendment to previous approved DA

Lot 229	DP 1218524	Building Envelope 227.8 SQM
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<p>Proposed New Residence For BDM Constructions Cnr Paris Lane & Black Caviar Parade Port Macquarie</p>		<p>Sheet No. 2 OF 5</p>
<p>Drawing FLOOR PLAN</p>	<p>Job No. 2016 - 33</p>	<p>1: true A3</p>
<p>Date December 2018</p>	<p>Scale 1: 100</p>	
<p>Gaz White Drafting Port Macquarie Phone 65 825821 mobile 0437 907383 Email coddimgaz@gmail.com</p>		
<p>DRAWN BY :</p>		





FLOOR PLAN - STAGE 2 DWELLING

Refer amended plans for approved floor levels

These are the plans referred to in Development Application No.:

2017-16

and determined as APPROVED on: 11 May 2017
PORT MACQUARIE-HASTINGS COUNCIL

The max height of the roof when measured at any point above the existing ground level immediately below shall not exceed 6.0m

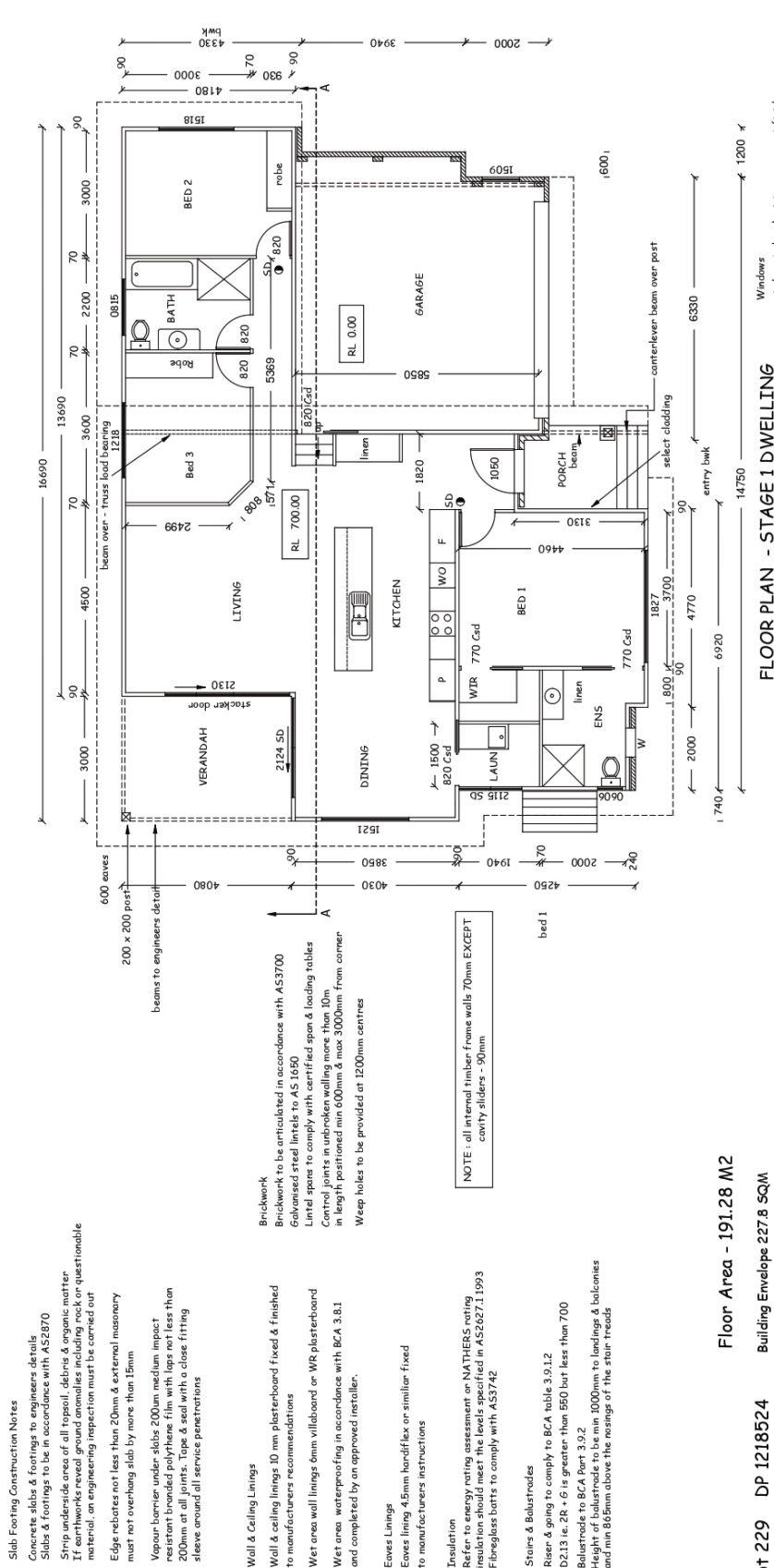
Bulk & Scale

The max height of external walls not including gables when measured vertically from the junction of the wall with the roof, gutter or eaves to a point on the existing ground level immediately below shall not exceed 6.0m

Floor Area - 201.45M2

Lot 229 DP 1218524 Building Envelope 227.8 SQM

Proposed new dwelling - stage 2			
For Mr. Perry Cassell			
Cnr Paris Lane & Black Caviar Parade			
Port Macquarie			
Drawing	Job No.	Sheet No.	
Section A-A	2016 - 33	2 OF 5	
Date	July 2016	Scale	1:100
		Issue	A3
DRAWN BY: WHITEZE DRAFTING SERVICES			
Port Macquarie			
Phone 06 825821 Mobile 0437 907383			
Email cadnangaz@gmail.com			



FLOOR PLAN - STAGE 1 DWELLING

Floor Area - 191.28 M2

Lot 229 DP 1218524 Building Envelope 227.8 SQM

Proposed new dwelling - stage 1 For Mr. Perry Cassell Cnr Paris Lane & Black Caviar Parade Port Macquarie			
Drawing Floor Plan	Job No. 2016 - 33	Sheet No. 2 OF 5	
Date August 2016	Scale 1 : 100	Page AS	
DRAWN BY : WHITEZE DRAFTING SERVICES Port Macquarie Phone 65 825821 mobile 0437 907383 Email cadmangaz@gmail.com			

These are the plans referred to in
Development Application No.:

2017-16

and determined as APPROVED on: 11 May 2017
PORT MACQUARIE-HASTINGS COUNCIL

Item: 07

Subject: DA2017 - 885.3 MODIFICATION TO TOURIST AND VISITOR
ACCOMMODATION AT LOT 331 DP 828346, LOT 24 DP 22883, 14-20
FLYNN STREET, PORT MACQUARIE

Report Author: Development Assessment Planner, Benjamin Roberts

Applicant: Hopkins Consultants Pty Ltd
Owner: Permanent Trustee Australia Ltd
Estimated Cost: \$10,942,792
Parcel no: 6779

Alignment with Delivery Program

4.3.1 Undertake transparent and efficient development assessment in accordance with relevant legislation.

RECOMMENDATION

That modification to DA2017 - 885.3 for tourist and visitor accommodation at Lot 331, DP 828346 and Lot 24, DP 22883, No. 14-20 Flynn Street, Port Macquarie be determined by granting consent subject to the recommended conditions as modified.

Executive Summary

This report considers a modification to the development application for tourist and visitor accommodation at the subject site and provides an assessment of the application in accordance with the Environmental Planning and Assessment Act 1979.

Following exhibition of the application, four (4) submissions have been received.

This report recommends that the request to modify the development consent (D2017-885.3) be approved subject to the amended conditions included in **Attachment 1**.

1. BACKGROUND

History

The development application was reported to, and approved by the Development Assessment Panel subject to conditions on 27 June 2018. The application was subsequently modified on 6 November 2018 to incorporate staging.

Existing Sites Features and Surrounding Development

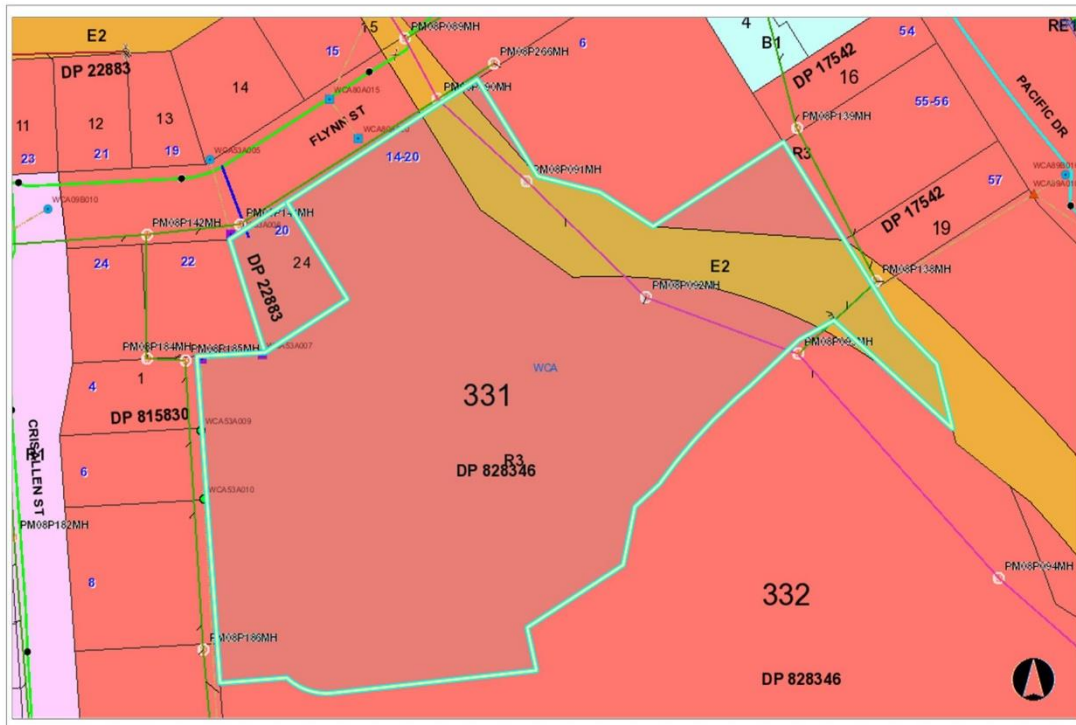
The site comprises two separate parcels being; Lot 331 DP 828346 and Lot 24 DP 22883 with a combined land area of 18,053.87m². The property is relatively flat with Wrights Creek traversing its eastern portion.

The site currently comprises a four (4) storey serviced apartment building fronting Flynn Street, comprising sixty (60) serviced apartments in three blocks with basement parking, swimming pool and children's playground area.

These existing buildings and amenities were constructed as part of the first stage of a development consent issued by Council on 19 February 2003 for a tourist accommodation complex (DA2002/920). This consent provides for a further 4 detached buildings (4 storeys in height)) which have not yet commenced. A copy of the approved site plan is reproduced below for reference:



The site is zoned R3 Medium Density and E2 Environmental Conservation in accordance with the Port Macquarie-Hastings Local Environmental Plan 2011, as shown in the following zoning plan:



The existing subdivision pattern and location of existing development within the locality is shown in the following aerial photograph:



2. DESCRIPTION OF DEVELOPMENT

Key aspects of the proposed modification include the following:

- Reconfiguration to villa locations and villa designs.

- Removal of elevated villas above western car park.
- Conversion of sales area to 2 x 1 bedroom units removed.
- Reconfiguration of internal floor areas of stage 1 to main building comprising:
 - Conversion of existing sales area to new reception and administration;
 - Conversion of existing reception to administration/sales area, including increased floor area for offices, disabled access and kids room;
 - Conversion of existing recreation/games room to food and beverage precinct with covered alfresco area and modification to existing gym.
- Overall reduction in building height of villas by 100mm.
- Addition of two villas on eastern side of Wrights Creek.
- Total reduction in villa numbers from 59 to 53.
- Reduction in onsite parking from 140 to 133 spaces.

Refer to attachments at the end of this report.

Application Chronology

- 26 February 2019 - Application lodged.
- 1 March 2019 - Referral to NSW Rural Fire Service.
- 1 March 2019 - Referral to Water NSW.
- 4 March 2019 - Additional information request - application fees.
- 6 March to 4 April 2019 - Public exhibition via neighbour notification.
- 3 April 2019 - Additional fees paid.
- 9 May 2019 - Additional information request.
- 31 May 2019 - Additional information response and revised plans.
- 21 June 2019 - Additional information request.
- 8 July 2019 - Additional information response and revised plans.

3. STATUTORY ASSESSMENT

Section 4.55 of the Environmental Planning and Assessment Act 1979 enables the modification of consents and categorises modification into three categories - 4.55(1) for modifications involving minor error, mis-description or miscalculation; 4.55(1A) for modifications involving minimal environmental impact; and 4.55(2) for other modifications. Each type of modification must be considered as being substantially the same to that which was originally consented to.

Is the proposal substantially the same?

The subject application is being considered under the provisions of Section 4.55(2). The proposal is considered to be substantially the same development to that which was originally consented to and will have minimal environmental impact. Specifically the use of the site as tourist and visitor accommodation and building footprint remains relatively unchanged. The fundamental characteristics and essence of the development remains essentially the same.

Does the application require notification/advertising in accordance with the regulations and/or any Development Control Plan?

Neighbour notification has been undertaken.

Any submissions made concerning the modification?

Four (4) submissions were received following completion of the neighbour notification period. The submissions are considered later in this report.

Any matters referred to in section 4.15(1) relevant to the modification?**Section 4.15(1) Matters for Consideration**

In determining the application, Council is required to take into consideration the following matters as are relevant to the development that apply to the land to which the development application relates:

- (a) The provisions (where applicable) of:**
- (i) Any Environmental Planning Instrument:**

State Environmental Planning Policy No. 44 - Koala Habitat Protection

A Koala Plan of Management applies to the land. It was approved as part of the development. Under this modification application, the planting location of one offset Koala Feed Tree (KFT) is to be moved due to a villa location change. Furthermore, under this modification the additional removal of a cottonwood and radiata pine is proposed. This will provide space for two additional primary KFT plantings as recommended by the author of the plan of management (Biolink). Accordingly, 11 primary Koala trees are still to be removed and these will be replaced at the specified ratio of 3:1 consistent with the plan of management. The modification will actually result in a further two primary KFTs being provided bringing the total primary KFT offset plantings onsite to 35.

In accordance with clause 9 of this policy a plan of management applies to the land and Council staff are of the view that the modified proposal is not inconsistent with the approved plan of management.

Port Macquarie-Hastings Local Environmental Plan 2011 (LEP 2011)

The proposal is consistent with the LEP having regard to the following:

- Clause 7.3, the site is mapped as within the "Flood planning area" on the Flood Planning Map as illustrated below:



Consistent with this clause, development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:

- (a) is compatible with the flood hazard of the land, and
- (b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and
- (c) incorporates appropriate measures to manage risk to life from flood, and
- (d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and
- (e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.

The site is impacted by localised flooding stemming from the Wrights Creek catchment. The flood characteristics applicable to this site are detailed under the Wrights Creek Flood Study (2007). This flood study and model has been used as the basis of assessment of the development from a floodplain management perspective. The modification application was supported by a revised flood impact assessment prepared by GHD dated July 2019. The 2007 flood study and model has been used by the consultant to generate a localised TUFLOW model to assess both the impacts of the additional cabins within flood prone areas and evacuation of the site. The TUFLOW model has been updated by incorporating additional feature survey and localised floodplain details.

The development as modified is required to meet the provisions of the Port Macquarie-Hastings Flood Policy (2015). The Flood Policy contains the relevant flood

related planning controls applicable to the proposed development. In this regard the development must meet the following prescriptive controls:

- Floor Level
- Flood Proofing
- Flood Impact on Other Properties
- Site Access and Flood Evacuation Requirements

The applicant has submitted a revised flood reports which aim to quantify the flood risk and flood impact that the development as proposed to be modified is likely to have on the floodplain. The flood report also aimed to assess the response and risk reduction measures in order to ensure that the prescriptive controls of the Flood Policy were met.

Council's technical staff have reviewed the latest revisions of the flood impact assessment and are satisfied that the development as proposed to be modified will pose minimal impact on existing and proposed development and ensures the safety of future occupants and visitors of the development site would be achieved.

It is considered that the impacts of the modified development on the floodplain are manageable and that no adverse impacts will be experienced both on the subject site and on adjoining land. However, certain flooding conditions are recommended to be modified and added to ensure these impacts are managed in an appropriate manner.

(ii) Any draft instruments that apply to the site or are on exhibition:

No draft instruments apply.

(iii) Any Development Control Plan in force:

Port Macquarie-Hastings Development Control Plan 2013

Building setbacks

The side and rear setbacks to all villas as modified remain substantially the same. The proposed villas are of a scale and nature (i.e. similar to dwellings that only need a 900mm setback) that allows adequate natural light and ventilation between buildings and private open space areas.

Car parking

Off-street parking in accordance with Table 2.5.1:

- 1.1 per unit + 1 per 2 employees (onsite at any one time) + 1 for on-site manager.

The approved development was required to provide 138 spaces. The proposal as modified includes a reduction in total villas from 59 to 53. Therefore $6 \times 1.1 = 6.6$ spaces are no longer required to meet the parking requirements. A total of 132 spaces would be required to serve the modified proposal.

There are 61 existing basement parks under the apartment building and 9 existing visitor spaces along the entrance driveway and 63 new parking spaces proposed at grade. It is noted that 64 new spaces are illustrated however the parking space

numbered 26 is a turning bay for the western carpark. A total of 133 usable spaces are proposed which satisfies the parking demand requirements.

Similar to the original design it is noted that the modified café and alfresco areas are only accessible and available for staying guests. No additional parking demand would be generated from this component.

(iiia) Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4:

No planning agreement has been offered or entered into.

iv) Any matters prescribed by the Regulations:

No matter prescribed by the regulations applicable to the modification.

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, social and economic impacts in the locality:

Having regard to existing development with the locality and adopted building height and floor space ratio controls, the proposal as modified is considered to be consistent with the locality and adequately addresses planning controls for the area.

The modified proposal will be unlikely to have any adverse impacts to existing adjoining properties and satisfactorily addresses the public domain.

There are no adverse impacts on existing view sharing and there are no adverse privacy impacts from the modified proposal

There are no adverse overshadowing impacts and the modified proposal does not prevent adjoining properties from receiving 3 hours of sunlight to private open space and primary living areas on 21 June.

Flora and fauna

The modified proposal includes a change to one Koala offset tree planting location and removal of a Pine tree and Cottonwood tree within the riparian zone.

Advice from an ecologist supports the modified proposal, which specifically has regard to the singular change to a Koala offset tree planting location. The advice also supports the removal of the Pine tree and Cottonwood tree from the riparian zone with a recommendation to provide a further two Koala offset tree plantings within the space provided by the removal of these two trees.

The updated ecology advice re-affirms the conclusions of the original flora and fauna impact assessment in that the proposal as modified is unlikely to have any significant adverse impacts on any threatened flora and fauna species and that Species Impact Statements are not required.

Conditions of consent current apply specifying that the commitments and obligations provided in both the VMP and KPOM form part of any consent issued and shall be implemented at their respective stages throughout the development if consent is granted.

Bushfire

The site is identified as being bushfire prone. In accordance with Section 100B of the Rural Fires Act, 1997, the application proposes development for a Special Fire Protection Purpose and is integrated development. The Commissioner has assessed the application and issued a Bushfire Safety Authority consisting of a series of conditions which form part of the consent conditions.

The modified proposal was supported by a further bushfire assessment report prepared by a certified consultant. The modified application and supporting bushfire assessment report were referred to the NSW Rural Fire Service. The RFS have issued a revised Bushfire Safety Authority consisting of a series of conditions which are recommended to form part of the consent conditions.

(c) The suitability of the site for the development:

The proposal as modified will fit into the locality. Site constraints have been adequately addressed and appropriate conditions of consent recommended.

(d) Any submissions made in accordance with this Act or the Regulations:

Four (4) written submissions have been received following public exhibition of the application.

Key issues raised in the submissions received and comments in response to these issues are provided as follows:

Submission Issue/Summary	Planning Comment/Response
Koala offset plantings need to be located within a 10m radius of the Koala trees being removed. Koalas are regularly seen on the site.	The approved Koala Plan of Management does not require plantings to occur within 10m from trees being removed. The modified proposal is consistent with the approved Koala Plan of Management. Refer to comments under SEPP 44 heading of this report.
The whole development should be reviewed. There is already too many holiday lettings in Port Macquarie and there is no benefit to the local residents.	The development is already approved. The modification is not changing the use and this is not a relevant matter for consideration under the modification.
I cannot understand why Council has allowed such a development alongside the creek and last remaining wildlife and Koala corridors.	The impacts of the development on flora and fauna, including the Koala, were subject to assessment of the original application. The modification will actually provide two additional Koala offsets plantings in the riparian corridor.
It takes away the private/public access residents had to the doctor, public transport and amenities.	It assumed this is a reference to the previous informal pedestrian access once enjoyed through the site to Pacific Drive. This matter was subject to assessment under the original application. In summary a right of footway 1.5m wide exists through the property of No 55-56 Pacific Drive. Lot 331 DP828346 (i.e. the development lot) is the only beneficiary.

(e) The Public Interest:

The proposed development satisfies relevant planning controls and will not adversely impact on the wider public interest.

4. DEVELOPMENT CONTRIBUTIONS APPLICABLE

- Development contributions will be required towards augmentation of town water supply and sewerage system head works under Section 64 of the Local Government Act 1993.
- Development contributions will be required under Section 94 of the Environmental Planning and Assessment Act 1979 towards roads, open space, community cultural services, emergency services and administration buildings.

5. CONCLUSION AND STATEMENT OF REASON

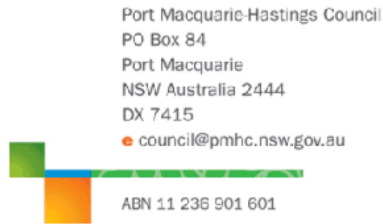
The application has been assessed in accordance with Section 4.55 of the Environmental Planning and Assessment Act 1979.

Issues raised during assessment and public exhibition of the application have been considered in the assessment of the application. Where relevant, conditions have been recommended to manage the impacts attributed to these issues.

The site is considered suitable for the proposed development and the proposal as modified adequately addresses relevant planning controls. The development is not considered to be contrary to the public's interest and will not result a significant adverse social, environmental or economic impact. It is recommended that the application be approved, subject to the recommended conditions of consent as modified provided in the attachment section of this report.

Attachments

- 1 [View](#). DA2017 - 885.3 Draft Amended Consent
- 2 [View](#). DA2017 - 885.3 Advice from KPOM author regarding modification
- 3 [View](#). DA2017 - 885.3 Amended Flood Report
- 4 [View](#). DA2017 - 885.3 Arboriculture Impact Assessment
- 5 [View](#). DA2017 - 885.3 Bushfire Safety Authority conditions NSW RFS
- 6 [View](#). DA2017 - 885.3 Ecologist advice regarding modification.PDF
- 7 [View](#). DA2017 - 885.3 SOEE
- 8 [View](#). DA2017 - 885.1 Current approved stamped site plan
- 9 [View](#). DA2017 - 885.3 Modified Plans
- 10 [View](#). DA2017 - 885.3 Contribution Estimate



<<Insert date>>

Parcel Number: 6779, 6782

Hopkins Consultants Pty Ltd
PO Box 1556
PORT MACQUARIE NSW 2444

Dear Sir/Madam

DA 2017/885.3 - Modification of Consent Pursuant to Section 4.55 (2) of the Environmental Planning & Assessment Act 1979

I refer to your application dated 26 February 2019 to modify tourist and visitor accommodation under DA 2017/885 at LOT: 331 DP: 828346, LOT: 24 DP: 22883 14-20 Flynn Street PORT MACQUARIE.

Please be advised that pursuant to Section 4.55 (2) of the Act, your application to modify the consent has been granted, subject to:

- A. Amend the following conditions as outlined in modified consent:
A1, A6, A12, A13, A15, B5, B6, B22, B23, B26, B27
- B. Add the following conditions as outlined in modified consent:
E27, F7
- C. Delete the following conditions:
A14
- D. Reimposition of all other previously approved conditions of consent as originally determined 27 June 2018 and as modified 6 November 2018 and with this approval dated <<Insert date>>.

The applicant is advised that Section 8.9 of the Act confers on an applicant who is dissatisfied with the determination, right of appeal to the Land and Environment Court.

A revised schedule of development consent conditions is attached.

Yours sincerely

Apply electronic signoff

pmhc.nsw.gov.au

PORT MACQUARIE OFFICE

WAUCHOPE OFFICE

LAURIETON OFFICE

**SCHEDULE OF CONDITIONS ATTACHED TO THIS CONSENT**

The conditions of consent referred to in the Notice of Determination for DA No 2017/885 are as follows:

No.1	Modification No.1	6 November 2018
No.2	Modification No.2	<<Insert date>>

PRESCRIBED CONDITIONS

The development is to be undertaken in accordance with the prescribed conditions of Part 6 - Division 8A of the *Environmental Planning & Assessment Regulations 2000*.

A – GENERAL MATTERS

- (1) (A001) The development is to be carried out in accordance with the plans and supporting documents set out in the following table, as stamped and returned with this consent, except where modified by any conditions of this consent.

Plan / Supporting Document	Reference	Prepared by	Date
Site Plan	Project:1625 D100 Revision DA8	White + Dickson Architects	15 May 2019
Riparian Corridor Offset Plans	D101 Revision DA4 D101a Revision DA4	White + Dickson Architects	15 May 2019
Roof Plan	D102 Revision DA3	White + Dickson Architects	25 February 2019
Foundations Plan	D103 Revision DA3	White + Dickson Architects	25 February 2019
Ground Floor Master Plan	D200 Revision DA5	White + Dickson Architects	15 May 2019
First Floor Plan	D201 Revision DA3	White + Dickson Architects	25 February 2019
Villa Suite Plans	D003 and D006 Issue C and Issue E for Villa 40	White + Dickson Architects	July 2017 and 24 May 2019
Existing Building Alterations -	D202 Revision DA3	White + Dickson Architects	25 February 2019



Ground Floor Plan Part 1			
Existing Building Alterations - Ground Floor plan Part 2	D203 Revision DA3	White + Dickson Architects	25 February 2019
BBQ & Linen Storage Plans and Elevations	D204 Revision DA3	White + Dickson Architects	25 February 2019
Maintenance & Staff Amenities Plan	D205 Revision DA3	White + Dickson Architects	25 February 2019
Port Cochere - Entry Details	D206 Revision DA3	White + Dickson Architects	25 February 2019
Sections	D300 DA3	White + Dickson Architects	25 February 2019
Elevations	D400 DA3	White + Dickson Architects	25 February 2019
Elevations	D401 DA3	White + Dickson Architects	25 February 2019
Landscape Plan	D800 DA3	White + Dickson Architects	25 February 2019
Koala Plan of Management	14-20 Flynn Street, Port Macquarie	Biolink Ecological Consultants	March 2018
Vegetation Management Plan	14-20 Flynn Street, Port Macquarie	JBEnviro	March 2018
Staging Plan	D100 Issue DA1	White + Dickson Architects	16 October 2018
Walkway Plan	Project: 1625 D206	White + Dickson Architects	5 June 2018

In the event of any inconsistency between conditions of this development consent and the plans/supporting documents referred to above, the conditions of this development consent prevail. ²

- (2) (A002) No work shall commence until a Construction Certificate has been issued and the applicant has notified Council of:
- the appointment of a Principal Certifying Authority; and
 - the date on which work will commence.

Such notice shall include details of the Principal Certifying Authority and must be submitted to Council at least two (2) days before work commences.

- (3) (A008) Any necessary alterations to, or relocations of, public utility services to be carried out at no cost to council and in accordance with the



requirements of the relevant authority including the provision of easements over existing and proposed public infrastructure.

- (4) (A009) The development site is to be managed for the entirety of work in the following manner:
1. Erosion and sediment controls are to be implemented to prevent sediment from leaving the site. The controls are to be maintained until the development is complete and the site stabilised with permanent vegetation;
 2. Appropriate dust control measures;
 3. Building equipment and materials shall be contained wholly within the site unless approval to use the road reserve has been obtained. Where work adjoins the public domain, fencing is to be in place so as to prevent public access to the site;
 4. Building waste is to be managed via an appropriate receptacle;
 5. Toilet facilities are to be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
 6. Building work being limited to the following hours, unless otherwise permitted by Council;
 - Monday to Saturday from 7.00am to 6.00pm
 - No work to be carried out on Sunday or public holidaysThe builder to be responsible to instruct and control his sub-contractors regarding the hours of work.
- (5) (A011) The design and construction of all public infrastructure works shall be in accordance with Council's adopted AUSPEC Specifications.
- (6) (A013) The general terms of approval from the following authorities, as referred to in section 93 of the Environmental Planning and Assessment Act 1979, and referenced below, are attached and form part of the consent conditions for this approval.
- **NSW Rural Fire Service** - The General Terms of Approval, Reference D19/760 DA19030817714 PC and dated 26 March 2019, are attached and form part of this consent.
 - **NSW Department of Primary Industries - Water** - The General Terms of Approval, Reference IDAS1102521 and dated 14 May 2018, are attached and form part of this consent. ²
- (7) (A014) This approval does not provide any indemnity to the owner or applicant under the Disability Discrimination Act 1992 with respect to the provision of access and facilities for people with disabilities.
- (8) (A017) A separate development application for any proposed advertising signs (other than signs which are exempt development or approved under this consent) must be submitted to and approved by council prior to the erection or display of any such signs.
- (9) (A033) The applicant shall provide security to the Council for the payment of the cost of the following:



- a. making good any damage caused to any property of the Council as a consequence of doing anything to which the consent relates,
- b. completing any public work (such as road work, kerbing and guttering, footway construction, utility services, stormwater drainage and environmental controls) required in connection with the consent,
- c. remedying any defects in any such public work that arise within twelve (12) months after the work is completed.

Such security is to be provided to Council prior to the issue of the Subdivision Certificate/Construction Certificate or Section 138 of the Roads Act, 1993.

The security is to be for such reasonable amount as is determined by the consent authority, being an amount that is 10% of the contracted works for Torrens Title subdivision development/the estimated cost plus 30% for building development of public works or \$5000, whichever is the greater of carrying out the development by way of:

- i. deposit with the Council, or
- ii. an unconditional bank guarantee in favour of the Council.

The security may be used to meet any costs referred to above and on application being made to the Council by the person who provided the security any balance remaining is to be refunded to, or at the direction of, that person. Should Council have to call up the bond and the repair costs exceed the bond amount, a separate invoice will be issued. If no application is made to the Council for a refund of any balance remaining of the security within 6 years after the work to which the security relates has been completed the Council may pay the balance to the Chief Commissioner of State Revenue under the Unclaimed Money Act 1995.

- (10) (A062) The applicant shall submit to Port Macquarie-Hastings Council plans for the management of trade waste including pre-treatment facilities to the sewerage authority for approval pursuant to Section 68 of the Local Government Act. Upon approval the proponent shall enter into a written "Trade Waste Agreement" with Council prior to discharging wastes.
- (11) The onsite ancillary café shall only serve guests of the accommodation and shall not be open to the general public.
- (12) The management provisions as detailed in Part B of the Koala Plan of Management and supporting letter, prepared by BioLink Ecological Consultants, dated March 2018 and 24 May 2019, form part of this consent and shall be undertaken at the respective stages throughout the development of the site as stated. ²
- (13) The action plan and monitoring program as detailed in parts 5 and 6 of the Vegetation Management Plan (VMP) prepared by JB Enviro, dated 19 February 2019, form part of this consent and shall be undertaken at the respective stages throughout the development as stated. ²
- ~~(14) Villas 60, 61 and 62, on the eastern side of Wrights Creek, do not form part of this consent. ²~~
- (15) The consent allows the removal of eleven koala food trees being those



numbered 7, 25, 26 (comprising a clump of 6 trees), 33 37 and 44 as provided in the approved Koala Plan of Management. ²

B – PRIOR TO ISSUE OF A CONSTRUCTION CERTIFICATE

- (1) (B001) Prior to release of the Construction Certificate for Stage 2, approval pursuant to Section 68 of the Local Government Act, 1993 to carry out water supply, stormwater and sewerage works is to be obtained from Port Macquarie-Hastings Council. The following is to be clearly illustrated on the site plan to accompany the application for Section 68 approval:
 - Position and depth of the sewer (including junction)
 - Stormwater drainage termination point
 - Easements
 - Water main
 - Proposed water meter location ¹
- (2) (B003) Submission to the Principal Certifying Authority prior to the issue of a Construction Certificate detailed design plans for the following works associated with the developments. Public infrastructure works shall be constructed in accordance with Port Macquarie-Hastings Council's current AUSPEC specifications and design plans are to be accompanied by AUSPEC DQS:
 1. Sewerage reticulation.
 2. Water supply reticulation.
 3. Water supply plans shall include hydraulic plans for internal water supply services and associated works in accordance with AS 3500, Plumbing Code of Australia and Port Macquarie-Hastings Council Policies.
 4. Stormwater systems.
 5. Erosion & Sedimentation controls.
 6. Location of all existing and proposed utility services including:
 - a. Conduits for electricity supply and communication services (including fibre optic cable).
 - b. Water supply
 - c. Sewerage
 - d. Stormwater
 7. Landscaping.
 8. Detailed driveway profile in accordance with Australian Standard 2890, AUSPEC D1, and ASD 202 and ASD207, Port Macquarie-Hastings Council current version.
- (3) (B006) An application pursuant to Section 138 of the Roads Act, 1993 to carry out works required by the Development Consent on or within public road is to be submitted to and obtained from Port Macquarie-Hastings Council prior to release of the Construction Certificate.

Such works include, but not be limited to:

- Civil works
- Work zone areas
- Hoardings
- Footway and gutter crossing



- Functional vehicular access
- (4) (B009) Prior to the issue of a construction certificate, Council shall be provided with a notice of modification confirming surrender of the remaining part of the development to Development Application No. 2002/920 to ensure consistency with this consent. The notice of modification shall be in accordance with clause 97 of the Environmental Planning and Assessment Regulation 2000.
- (5) (B010) Payment to Council, prior to the issue of the Construction Certificate for respective stages within Stage 3, of the Section 94 contributions set out in the "Notice of Payment – Developer Charges" schedule attached to this consent unless deferral of payment of contributions has been approved by Council. The contributions are levied, pursuant to the Environmental Planning and Assessment Act 1979 as amended, and in accordance with the provisions of the following plans:
- Hastings S94 Administration Building Contributions Plan
 - Hastings Administration Levy Contributions Plan
 - Community Cultural and Emergency Services Contributions Plan 2005
 - Hastings S94 Major Roads Contributions Plan
 - Hastings S94 Open Space Contributions Plan
- The plans may be viewed during office hours at the Council Chambers located on the corner of Burrawan and Lord Streets, Port Macquarie, 9 Laurie Street, Laurieton, and High Street, Wauchope.
- The attached "Notice of Payment" is valid for the period specified on the Notice only. The contribution amounts shown on the Notice are subject to adjustment in accordance with CPI increases adjusted quarterly and the provisions of the relevant plans. Payments can only be made using a current "Notice of Payment" form. Where a new Notice of Payment form is required, an application in writing together with the current Notice of Payment application fee is to be submitted to Council.²
- (6) (B011) As part of Notice of Requirements by Port Macquarie-Hastings Council as the Water Authority under Section 306 of the Water Management Act 2000, the payment of a cash contribution, prior to the issue of a Construction Certificate for respective stages within Stage 3, of the Section 64 contributions, as set out in the "Notice of Payment – Developer Charges" schedule attached to this consent unless deferral of payment of contributions has been approved by Council. The contributions are levied in accordance with the provisions of the relevant Section 64 Development Servicing Plan towards the following:
- augmentation of the town water supply headworks
 - augmentation of the town sewerage system headworks ²
- (7) (B012) To ensure that adequate provision is made for the cleanliness and maintenance of all food preparation areas, all work involving construction or fitting out of the café component shall comply with the requirements of Australian Standard 4674-2004 – "Design, Construction and Fit-Out of Food Premises", Food Act 2003, the provisions of the Food Safety Standards Code (Australia) and the conditions of development consent. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate.



- (8) (B037) The finished floor level of the building shall be at least 1050mm above the soffit of Council's sewer main. Details indicating compliance with this are to be submitted to the Principal Certifying Authority with the application for Construction Certificate.
- (9) (B038) Footings and/or concrete slabs of buildings adjacent to sewer lines or stormwater easements are to be designed so that no loads are imposed on the infrastructure. Detailed drawings and specifications prepared by a practising chartered professional civil and/or structural engineer are to be submitted to the Principal Certifying Authority with the application for the Construction Certificate.
- (10) (B045) A schedule of existing and proposed fire safety measures is to be submitted to the Principal Certifying Authority with the application for the Construction Certificate for Stage 3. ¹
- (11) (B046) New buildings within 100m of the mapped bushfire prone land on the northern side of Flynns Street shall be designed and constructed so as to comply with the Bush Fire Attack (BAL) 12.5 requirements of Australian Standard 3959 and the specifications and requirements of Planning for Bush Fire Protection. Details shall be submitted to the Principal Certifying Authority with the application for Construction Certificate for Stage 3 demonstrating compliance with this requirement.

Please note: Compliance with the requirements of Planning for Bush Fire Protection 2006 to prevail in the extent of any inconsistency with the Building Code of Australia. ¹

- (12) (B048) Prior to the issue of a Construction Certificate for Stage 3, provision shall be made for the storage of garbage containers and containers for recyclable material in a designated garbage area. If an external area is used for the storage of putrescible material then the area shall be:
 - a. Bunded with a minimum volume of the bund being capable of containing 110% of the capacity of the largest container stored, or 25% of the total storage volume, whichever is the greatest.
 - b. Provided with a hose tape connected to the water supply;
 - c. Paved with impervious material;
 - d. Graded and drained to the sewer system, and
 - e. Roofed to prevent the entry rainwater. ¹
- (13) (B072) A stormwater drainage design is to be submitted and approved by Council prior to the issue of a Construction Certificate. The design must be prepared in accordance with Council's AUSPEC Specifications and the requirements of relevant Australian Standards and make provision for the following:
 - a) The legal point of discharge for the proposed development is defined as the existing stormwater drainage system.
 - b) The design is to be generally in accordance with the stormwater drainage concept plan prepared by Hopkins Consultants Pty Ltd and dated 2 February 2018 revision B.
 - c) The design shall incorporate on-site stormwater detention facilities to limit site stormwater discharge to pre development flow rates for all storm events up to and including the 100 year ARI event. Note that pre



development discharge shall be calculated assuming that the site is a 'greenfield' development site as per AUSPEC requirements.

- d) The design shall include water quality controls designed to achieve the targets specified within AUSPEC D7.
 - e) Where works are staged, a plan is to be provided which demonstrates which treatment measures are to be constructed with which civil works stage. Separate plans are required for any temporary treatment where applicable (ie for building phase when a staged construction methodology is adopted) and ultimate design.
 - f) The design is to make provision for the natural flow of stormwater runoff from uphill/upstream properties/lands. The design must include the collection of such waters and discharge to the Council drainage system.
 - g) The design shall provide details of any components of the existing stormwater drainage system servicing the site that are to be retained.
- (14) (B053) The design of the car park and accesses is to be in accordance with Australian Standard 2890 (including AS 2890.1, AS 2890.2 and AS 2890.6). Certification of the design by a suitably qualified consultant is to be provided to the Principal Certifying Authority prior to release of the Construction Certificate. The exception to this is the permeable driveway and parking located along the eastern side of the existing building.
 - (15) (B054) Where a vehicular access is provided, details (in the form of a longitudinal section) must be submitted to and approved by Port Macquarie-Hastings Council prior to release of the Construction Certificate demonstrating how the access will comply with Council's adopted AUSPEC Design and Construction Guidelines.
 - (16) (B071) Prior to the issue of any Construction Certificate for Stage 3, the provision of water and sewer services to the land are to be approved by the relevant Water Authority and relevant payments received.¹
 - (17) (B085) The location of electricity substations are to be clearly illustrated on the Construction Certificate plans for Stage 3. All substations are to remain on private property unless otherwise agreed to by Port Macquarie-Hastings Council.¹
 - (18) Council records indicate that the development site has four existing metered water services. Final water service sizing will need to be determined by a hydraulic consultant to suit the domestic and commercial components of the development, as well as fire service and backflow protection requirements in accordance with AS3500. Details to be provided with application for section 68 approval.
 - (19) The Roads Act (s138) approval shall include design plans for the provision at the intersection of Lord and Flynn Streets of Channelised Left Turn (CHL) and Channelised Right Turn (CHR) treatments for both turning movements into Flynn Street, consistent with the concept plan lodged with the development application and in accordance with the AUSTROADS Guide.
 - (20) The floor level of all habitable areas must be a minimum of 500mm above the 1 in 100 year flood level including the applicable climate change allowance. For the purpose of this requirement, the 1 in 100 year flood level including climate change may be assumed to be RL13.10m AHD. Prior to



release of the Construction Certificate for Stage 3, floor levels satisfying this requirement shall be clearly illustrated on the plans.¹

- (21) The floor level of the garage/workshop building is to be at or above the 1 in 20 year flood level. For the purpose of this requirement, the 1 in 20 year flood level may be assumed to be RL12.1 AHD. Prior to release of the Construction Certificate for Stage 3, floor levels satisfying this requirement shall be clearly illustrated on the plans.¹
- (22) The floor level of the sales area (comprising reception, offices and kids room), linen storage room and laundry/staff amenities building are to be at or above the 1 in 100 year flood level including the applicable climate change allowance. For the purpose of this requirement, the 1 in 100 year flood level including climate change may be assumed to be RL13.10m AHD. Prior to release of the Construction Certificate for Stage 3, floor levels satisfying this requirement shall be clearly illustrated on the plans.²
- (23) Prior to release of the Construction Certificate for Stage 3-5, a practising chartered professional structural engineer is to provide certification to the Principal Certifying Authority that all new buildings (including boardwalks) that are subject to flooding are provided with structural members that are capable of withstanding flood forces and the impact of any debris (carried by floodwaters) likely to occur for a range of floods up to and including the 1 in 100 year flood including climate change and the relevant freeboard level of 500mm. For the purpose of this requirement, the 1 in 100 year flood level including climate change may be assumed to be RL13.10m AHD. Velocities to be adopted for the calculation of forces created by flood waters and debris loading shall be at least three (3) times the velocities for a 1 in 100 year flood including climate change plus freeboard. For the purpose of this requirement, the velocity for the 1 in 100 flood including climate change may be assumed to be 0.85m/s.²
- (24) All rainwater tank(s) located within the Flood Planning Level (1 in 100 flood level including climate change plus 500mm freeboard) are to be securely fastened so that they do not become floating debris in a flood event up to and including the 1 in 100 year flood including the applicable climate change allowance plus 500mm freeboard. Fastening details are to be provided by a suitably qualified engineer and shall be submitted with the application for the Construction Certificate for Stage 3.¹
- (25) Detailed plans must be submitted to Council for approval for the driveway on the eastern side of the existing resort building. The details plans must confirm that ground levels are not altered (i.e. raised) as part of the driveway works. No kerbing or other obstructions to flood flows are permitted to service the driveway areas.
- (26) A detailed Flood Evacuation Plan undertaken by a suitably qualified consultant with demonstrated experience in preparing flood plans shall be submitted to Council for approval which covers all existing and proposed development on the site. The Flood Evacuation Plan must be determined to be satisfactory by Council prior to the release of the Construction Certificate for Stage 3-5. The Flood Evacuation Plan must demonstrate that all new development meets the provisions of the Port Macquarie-Hastings Flood Policy (2015).¹ The GHD Flood Report dated 5th July 2019 is not considered to have satisfied this requirement.²



- (27) Prior to the release of the Construction Certificate for Stage 3-5, detailed plans must be submitted to Council confirming that cabins 46 - 53 have been provided with an upwardly grading egress route that is no lower than the 1:100 year flood level of 12.50m AHD, as per the recommendations of GHD Flood Report dated 5th July 2019. ²
- (28) All electrical meter boxes shall be placed at a level which is above the 1 in 100 year flood level including the applicable climate change allowance. The positioning of meter boxes shall comply with the requirements of the relevant electricity authority. For the purpose of this requirement, the 1 in 100 year flood level including climate change may be assumed to be RL 13.10m AHD. Details shall be clearly illustrated on the construction certificate plans for Stage 3. ¹
- (29) Prior to release of the Construction Certificate for Stage 3, plans are to be submitted showing all habitable buildings within the Flood Planning Level (1 in 100 flood level including climate change plus 500mm freeboard) allowing for flood waters to pass beneath the building. In particular, the habitable buildings are not permitted to be enclosed below the Finished Floor Level. ¹
- (30) Prior to release of the Construction Certificate for Stage 3, details are to be provided showing all parts of new structures constructed below the applicable Flood Planning Level (1 in 100 flood level including climate change plus 500mm freeboard) are constructed from flood compatible materials compliant with the ABCB Standard for Construction of Buildings in Flood Hazard Areas. Consideration should also be given to the relevant provisions contained with the Hawkesbury-Nepean Floodplain Management Steering Committee document Reducing Vulnerability of Buildings to Flood Damage (2007). ¹

C – PRIOR TO ANY WORK COMMENCING ON SITE

- (1) (C001) A minimum of one (1) week's notice in writing of the intention to commence works on public land is required to be given to Council together with the name of the principal contractor and any major sub-contractors engaged to carry out works. Works shall only be carried out by a contractor accredited with Council.
- (2) (C013) Where a sewer manhole exists within a property, access to the manhole shall be made available at all times. Before during and after construction, the sewer manhole must not be buried, damaged or act as a stormwater collection pit. No structures, including retaining walls, shall be erected within 1.0 metre of the sewer manhole or located so as to prevent access to the manhole.
- (4) (C015) Tree protection fencing, compliant with AS 4970/2009 *Protection of trees on development sites* must be provided. The fencing shall be in place prior to the commencement of any works or soil disturbance and maintained for the entirety of the works.
- (5) The attached General Terms of Approval issued by Department of Primary Industries (DPI) Water do not constitute an approval under the Water Management Act 2000. The development consent holder must apply to DPI Water for a Controlled Activity approval after consent has been issued by Council and before the commencement of any work or activity.



- (6) The proponent is to prepare a construction management plan which includes the following at a minimum:
- Schedule of works and approximate timing;
 - Contact number for construction site supervisor/manager; and
 - Mechanism for providing a minimum of 24 hours' notice to immediately adjoining land owners of scheduled noisy works.

D – DURING WORK

- (1) (D001) Development works on public property or works to be accepted by Council as an infrastructure asset are not to proceed past the following hold points without inspection and approval by Council. Notice of required inspection must be given 24 hours prior to inspection, by contacting Council's Customer Service Centre on (02) 6581 8111. You must quote your Construction Certificate number and property description to ensure your inspection is confirmed:
- a. at completion of installation of traffic management works
 - b. when the sub-grade is exposed and prior to placing of pavement materials;
 - c. when trenches are open, stormwater/water/sewer pipes and conduits jointed and prior to backfilling;
 - d. at the completion of each pavement (sub base/base) layer;
 - e. before pouring of kerb and gutter;
 - f. prior to the pouring of concrete for sewerage works and/or works on public property;
 - g. during construction of sewer infrastructure;
 - h. during construction of water infrastructure;
 - i. prior to sealing and laying of pavement surface course.

All works at each hold point shall be certified as compliant in accordance with the requirements of AUSPEC Specifications for Provision of Public Infrastructure and any other Council approval, prior to proceeding to the next hold point.

- (2) (D003) The site is in an area known to contain rock that may contain naturally occurring asbestos (NOA). Should potential NOA be located on site notification shall be provided to Council and Workcover prior to works proceeding. No work shall recommence until a NOA management plan has been approved by Council or Workcover.
- (3) (D006) A copy of the current stamped approved construction plans must be kept on site for the duration of site works and be made available upon request to either the Principal Certifying Authority or an officer of the Council.
- (4) (D029) The demolition of any existing structure shall be carried out in accordance with Australian Standard AS 2601-1991: *The Demolition of Structures*. No demolition materials shall be burnt or buried on site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Should the demolition works obstruct or inconvenience pedestrian or vehicular traffic on an



adjoining public road or reserve, separate application shall be made to Council to enclose the public place with a hoarding fence.

Should asbestos be present, its removal shall be carried out in accordance with the National OH&S Committee – *Code of Practice for Safe Removal of Asbestos* and *Code of Practice for the Management and Control of Asbestos in Workplaces*.

- (5) (D037) Noise from construction activities (measure as the L_{AeqT} noise level) shall not exceed the background noise level (measured as the L_{A90} noise level in the absence of the source), for periods of construction between 4 and 26 weeks by 10 dB(A), and for periods of construction exceeding 26 weeks by 5 dB(A), in any Octave Band Centre Frequency, when measured at any affected residence, or premises.
- (6) (D045) A suitably qualified ecological consultant shall inspect all native trees that have been approved for removal before they are felled. If there are any koala or other fauna species in the tree, work in the vicinity is to cease until the animal has moved from the area. If it is likely that hollows are providing habitat for native species, traps shall be set for several nights and any native species found shall be relocated to an appropriate nearby location.
- (7) (D050) The capacity and effectiveness of tree protection fencing, compliant with AS 4970/2009 *Protection of trees on development sites* shall be maintained at all times in accordance with the approved management plan until such time as the site is no longer subject to any construction or earth moving works.
- (8) (D051) Prior to commencement of any pavement works a material quality report from the proposed supplier shall be submitted to Council. The pavement materials shall meet Council's current specifications at the time of construction.

E – PRIOR TO OCCUPATION OR THE ISSUE OF OCCUPATION CERTIFICATE

- (1) (E001) The premises shall not be occupied or used in whole or in part until an Occupation Certificate has been issued by the Principal Certifying Authority.
- (2) (E004) Consolidation of the allotments comprising the site of the proposed development prior to issue of any occupation certificate.
- (3) (E007) The owner/applicant is responsible for ensuring that any imported fill is either Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM). Prior to the issue of an Occupation Certificate, certification is to be provided to Council demonstrating that the fill is either VENM or ENM.
- (4) (E016) Prior to occupation or the issue of the Occupation Certificate (or Interim Occupation Certificate) the owner of the building must cause the Principal Certifying Authority to be given a fire safety certificate (or interim fire safety certificate in the case of a building or part of a building occupied before completion) in accordance with Clause 153 of the Environmental Planning and Assessment Regulation 2000 for each measure listed in the schedule. The certificate must only be in the form specified by Clause 174 of the Regulation. A copy of the certificate is to be given to the Commissioner of the New South Wales Fire Brigade and a copy is to be prominently displayed in the building.



- (5) (E024) Occupation of the café component shall not occur until a registration application has been submitted to Council's Environmental Health Unit for the food premises.
- (6) (E025) Prior to occupation or the issue of an Occupation Certificate for the café component, provide a certificate from the installer certifying that the mechanical ventilation system meets the requirements of AS 1668 Parts 1 & 2. The certificate must include:
 - a. Inspection, testing and commissioning details
 - b. Date of inspection, testing and commissioning
 - c. The name and address of the individual/company, who carried out the test
 - d. Statement that the service has been designed, installed and is capable of operating to AS 1668.
- (7) (E027) A final site inspection relating to the works carried out on the café component shall be arranged by the applicant and shall be undertaken by Council's Environmental Health Officer.
- (8) (E030) Vehicle ramps, driveways, turning circles and parking spaces being paved, sealed and line marked prior to occupation or the issue of the Occupation Certificate or commencement of the approved land use.
- (9) (E031) Provision of a sign at the front vehicular access point within the property, prior to occupation or the issue of the Occupation Certificate, indicating that visitor/customer parking is available on-site.
- (10) (E034) Prior to occupation or the issuing of the Final Occupation Certificate provision to the Principal Certifying Authority of documentation from Port Macquarie-Hastings Council being the local roads authority certifying that all matters required by the approval issued pursuant to Section 138 of the Roads Act have been satisfactorily completed.
- (11) (E036) Certification by a suitably qualified consultant is to be submitted to the Principal Certifying Authority (PCA) confirming that the car park and internal accesses have been constructed in accordance with Port Macquarie-Hastings Development Control Plan 2013 and Australian Standard 2890 (including AS 2890.1, AS 2890.2 and AS 2890.6) prior to occupation or issue of the Occupation Certificate. The exception to this is the permeable driveway and parking located along the eastern side of the existing building.
- (12) (E039) An appropriately qualified and practising consultant is required to certify the following:
 - a. all drainage lines have been located within the respective easements, and
 - b. any other drainage structures are located in accordance with the Construction Certificate.
 - c. all stormwater has been directed to a Council approved drainage system
 - d. all conditions of consent/ construction certificate approval have been complied with.
 - e. Any on site detention system (if applicable) will function hydraulically in accordance with the approved Construction Certificate.



- (13) (E040) Each onsite detention system is to be marked by a plate in a prominent position which states:
- “This is an onsite detention system. It is an offence to reduce the volume of the tank or basin or interfere with any part of the structure that controls the outflow”.
- This plate is to be fixed into position prior to occupation or the issue of the Occupation or Subdivision Certificate.
- (14) (E051) Prior to occupation or the issuing of any Occupation Certificate a section 68 Certificate of Completion shall be obtained from Port Macquarie-Hastings Council.
- (15) (E053) All works shall be certified by a practicing Civil Engineer or Registered Surveyor as compliant with the requirements of AUSPEC prior to issue of Occupation Certificate or release of the security bond, whichever is to occur first.
- (16) (E056) A Certificate of Compliance under the provisions of Section 307 of the *Water Management Act* must be obtained prior to the issue of any occupation certificate.
- (17) (E061) Landscaped areas being completed prior to occupation or issue of the Occupation Certificate. Public landscaping may be bonded as agreed to by Council.
- (18) (E062) Prior to occupation or the issue of any Occupation Certificate, evidence must be provided to the Principal Certifying Authority that satisfactory arrangements are in place for collection of general waste (rubbish), recycling and food and garden organics from the premises by a private waste contractor. All wastes are to be collected as separate waste streams.
- (19) (E068) Prior to the issue of a Occupation Certificate, evidence to the satisfaction of the Certifying Authority from the electricity and telecommunications providers that satisfactory services arrangements have been made to the units (including street lighting and fibre optic cabling where required).
- (20) (E072) Lodgement of a security deposit with Council upon practical completion of the subdivision works.
- (21) (E082) Submission of a compliance certificate accompanying Works as Executed plans with detail included as required by Council's current AUSPEC Specifications. The information is to be submitted in electronic format in accordance with Council's "CADCHECK" requirements detailing all infrastructure for Council to bring in to account its assets under the provisions of AAS27. This information is to be approved by Council prior to issue of the Subdivision or Occupation Certificate. The copyright for all information supplied, shall be assigned to Council.
- (22) The Lord and Flynn Street intersection upgrade works including all necessary line marking, signage and raised 'blister' islands shall be completed to the satisfaction of Port Macquarie-Hastings Council prior the issue of any occupation certificate.
- (23) Prior to the issue of any occupation certificate, a positive covenant is to be created under Section 88E of the Conveyancing Act 1919, burdening the



property owner with the requirement to maintain the on-site stormwater detention ('OSD'), stormwater quality improvement devices ('SQIDs') and overland flow paths on the property.

The terms of the 88E instrument with positive covenant shall include, but not be limited to, the following:

- a. The Proprietor of the property shall be responsible for maintaining and keeping clear all pits, pipelines, trench barriers and other structures associated with the OSD, SQIDs and overland flow paths.
- b. The Proprietor shall have the OSD, SQIDs and overland flow paths inspected annually by a competent person.
- c. The Council shall have the right to enter upon the land referred to above, at all reasonable times to inspect, construct, install, clean, repair and maintain in good working order all pits, pipelines, trench barriers and other structures in or upon the said land which comprise the OSD, SQIDs or overland flow paths or which convey stormwater from the said land; and recover the costs of any such works from the proprietor.
- d. The registered proprietor shall indemnify the Council and any adjoining land owners against damage to their land arising from the failure of any component of the OSD, SQIDs or overland flow paths, or failure to clean, maintain and repair these features.

The proprietor or successor must bear all costs associated in the preparation of the subject 88E instrument. Evidence of registration with the Lands and Property Information NSW shall be submitted to and approved by the Principal Certifying Authority prior to the issue of an Occupation Certificate.

- (24) Prior to the issue of any occupation certificate, a positive covenant shall be registered on the title requiring a private contractor garbage service to be maintained for the collection of all waste generated by the development. Collection as separate waste streams shall at a minimum comprise general waste (rubbish), recycling, and food / garden organics.
- (25) The applicant will be required to submit prior to occupation or the issue of the Occupation Certificate, certification by a Registered Surveyor that all aspects of the development required to meet flood planning levels have met the necessary flood planning levels specified in this consent.
- (26) Prior to issue of any occupation certificate, evidence shall be provided to the satisfaction of the principal certifying authority confirming lot consolidation and title restrictions being applied to title surrounding swimming pool fencing and keeping of domestic dogs as stipulated in the approved Koala Plan of Management.
- (27) Prior to the release of the Occupation Certificate for Stage 3-5, detailed plans must be submitted to Council confirming that the gate on the pedestrian access traversing through SP 61661 has been relocated so that it is outside the Flood Prone area. In this regard the gate must be located so that it is at or above 12.50m AHD, being the estimated 1:100 year flood level.²

F – OCCUPATION OF THE SITE



- (1) (F005) The units are approved for short term accommodation.
- (2) (F010) Within each 12 months after completion of the building, the owner of the building must cause Council to be given an annual fire safety statement in accordance with Clause 177 of the Environmental Planning and Assessment Regulation 2000 for each measure listed in the schedule. The statement must only be in the form specified by clause 181 of the Regulation. A copy of the statement is to be given to the Commissioner of the New South Wales Fire Brigade and a copy is to be prominently displayed in the building.
- (3) (F013) All garbage areas are to be screened from the street, create no adverse odour impact on adjoining properties and be kept free of pests at all times.
- (4) (F024) Offensive noise as defined under the Protection of the Environment Operations Act 1997, shall not be generated as a result of the operation of the development.
- (5) (F036) Any exterior lighting on the site shall be designed and installed so as not to cause a nuisance or adverse impact on the amenity of the surrounding area by light overspill. The lighting shall be the minimum level of illumination necessary for safe operation and must be designed, installed and used in accordance with AS 4282 - 1997 control of the obtrusive effects of outdoor lighting. No flashing, moving or intermittent lighting is permitted on the site.
- (6) A noise/nuisance complaints register must be kept up to date at all times by management and must be made available to Council on request. The register must contain:
 - Complaint date and time;
 - Name of person making the complaint;
 - Contact details (phone and address) of person lodging the complaint;
 - Nature of complaint;
 - Name of staff managing the complaint;
 - Action taken (by whom and when); and
 - Outcome and or further action required;
 - A telephone number is to be provided on the existing sign attached to the front fence fronting Flynns Street to enable the public to register a complaint with the property manager.
- (7) No fencing or other obstructions to flood flows are permitted within flood prone areas. In this regard, the existing fence that runs along the Flynn Street frontage, between the eastern edge of the existing resort building and the eastern boundary of the site shall be removed. No new or additional fencing within flood prone areas is permitted as part of this consent.²

The reason for this decision is that site is considered suitable for the proposed development and the proposal adequately addresses relevant planning controls. The development is not considered to be contrary to the public interest and will not result in significant adverse social, environmental or economic impacts. The conditions referred to in this schedule are imposed in conformity with the relevant provisions of the Environmental



Planning and Assessment Act and Regulations, the Local Government Act and Regulations, The Building Code of Australia and with Council's Policies and Development Control Plan or any other ancillary Act or Regulation in force at the time of the date of determination. The conditions are aimed at protecting the natural environment, preserving our heritage and providing a functional, safe and healthy built environment.

Rights of Appeal

If you are dissatisfied with this decision a request for a review of the determination may be made to Council, under the provisions of Section 8.2 of the Environmental Planning and Assessment Act 1979.

If you are dissatisfied with this decision, Section 8.9 of the Environmental Planning and Assessment Act 1979 gives you the right of appeal to the Land and Environment Court.

Yours sincerely

Apply electronic signoff



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24th May 2019

Dear Peter,

Following our recent correspondence, please find below our review of the proposed design changes and related offset strategy for 14-20 Flynn Street, Port Macquarie. This review, and the relevant amendments, should be used in conjunction with the Koala Plan of Management (KPOM) developed for the site in March 2018 (Biolink 2018).

It is my understanding that one proposed building is required to be moved, and as a result requires the movement of one proposed PKFT offset tree. This offset tree will subsequently be moved into the Wrights Creek Riparian Corridor, and as a result, this causes no change to the previous information provided in our offset assessment (see detail below). However, since this time, it has been recommended by JBEnviro¹ that three large introduced trees be removed from the Wrights Creek Riparian Corridor. As outlined in Woodvale (2019), these include Tree 61 (*Populus deltoids* cottonwood) and Tree(s) 63 (2 x *Pinus radiata* radiata pine). Recommended offsetting as a result of this removal has been updated to the following information.

Previous assessment (dated 18th February 2019)

As identified in Biolink (2018), 54 of 58 eucalypt trees recorded on the site in Clements *et al.* (2017) are Preferred Koala Food Trees (PKFTs) (21 x *Eucalyptus microcorys* tallowwood, 31 x *E. robusta* swamp mahogany, and 2 x *E. tereticornis* forest red gum). Most of the PKFTs recorded on the site were likely to be of planted origin due to their placement in mulched planting beds or other landscaped areas. It is possible that a few smaller trees along the creek were of recent self-seeded origin, and there were two larger and older likely remnant *E. robusta*² recorded on site.

¹ Tasked with update of Vegetation Management Plan (VMP) for the site (original VMP [JBEnviro 2018]).

² Tree numbers referenced in Clements *et al.* (2017) may not relate to current plans in Woodvale (2019).

Following analysis of the revised Masterplan, a total of 11 PKFTs are proposed for removal. All 11 PKFTs are *E. microcorys* or *E. robusta*, which range from smaller semi-mature trees (~ 70 mm DBH³) to larger mature trees (~ 550 mm DBH). It is our understanding that the two largest trees proposed to be removed (*E. robusta*) were assessed as being in poor health by Woodvale (2019) and that this is also supported by Jason Berrigan from JBEnviro (Peter Kuhn [Bultsmart] pers. comm.).

A summary of these trees as documented by Woodvale (2019) is provided in **Table 1**.

Table 1 Summary of PKFTs being removed at 14-20 Flynn Street, Port Macquarie. Tree / Group #, health assessment and tree size (height and DBH) as provided in Woodvale (2019).

Tree/Group #	Species	Height (m)	DBH (mm)	Health assessment
7	<i>E. robusta</i>	9	300	Healthy mature tree. Long life expectancy. Located in proposed carpark.
25	<i>E. robusta</i>	3	70	Healthy semi-mature tree. Long life expectancy.
26 (x 6 trees)	<i>E. robusta</i> / <i>E. microcorys</i>	6	130	Healthy semi-mature trees. Long life expectancy.
33	<i>E. robusta</i>	12	460	Poor crown structure, previous limb failures. Short life expectancy.
37	<i>E. robusta</i>	12	550	30% canopy dieback. Lost apical dominance – necrotic leader. White ants. Excessive deadwood. Short life expectancy.
44	<i>E. microcorys</i>	6	200	Healthy semi-mature tree. Long life expectancy.

As previously discussed⁴, an agreed offset ratio of 3:1 will be implemented for the loss of PKFTs (offset = 33 PKFTs). All subsequent revisions to the Masterplan have been done in such a way to minimise impacts (where possible) on PKFTs, and the plan for offsetting focuses on enhancing koala habitat and connectivity across the site (see target locations below).

It is recommended that two additional PKFTs be planted following the removal of Trees 61 and 63 (cottonwood and radiata pine). The removal of these large trees, of which each are greater than 1000

³ Diameter at Breast Height

⁴ Email correspondence with Jonathon Condon (18th January 2018), followed by a phone meeting on 19th January 2018 between Dr Grant Brearley (fauna ecologist) of Biolink, Dr AnneMarie Clements (flora ecologist), Jon Kay (arborist) of Woodvale Tree Services and Jonathon Condon of White + Dickson Architects.

mm DBH, may also facilitate greater spacing between plantings in the Wrights Creek Riparian Corridor. This can be guided by a detailed revegetation / restoration plan.

Offset locations for the 35 PKFTs should target the following two localities on site:

- **The Wrights Creek Riparian Corridor** to facilitate koala connectivity, and enhance koala habitat (feed trees) and riparian zone function.
- **Strategic placement of PKFT plantings should occur throughout the site.** This will facilitate connectivity for koalas from retained PKFTs near the carpark/courtyard, through the site to the Riparian Zone. The exact location of plantings can be determined at a later time; however, trees should be planted in a way that they are (i) visible by koalas from one tree to the next, and (ii) so that time spent transiting the ground is kept to a minimum. Opportunities may exist alongside the walking pathway, and in open spaces in front of the swimming pool and nearer the riparian zone.

The following amendments should be made to the *Performance Triggers and Corrective Actions* table in the KPOM (Biolink 2017). The long-term aim for the 35 offset PKFTs should be a 100% success rate (see below).

Management aim	Monitoring	Performance trigger	Corrective action
Short-term (during earthworks and construction)			
No damage or loss of PKFTs.	Weekly inspections as part of the VMP.	Any loss or breach in protection of PKFTs.	Supplementary revegetation of PKFTs and monitor until 100% success rate at 5 m in height.
Long-term (life of the development)			
No damage or loss of existing PKFTs.	Monthly monitoring during year 1 and then yearly for the life of the proposed development.	Any loss or breach in protection of PKFTs.	Supplementary revegetation of PKFTs and monitor recovery until 100% success rate at 5 m in height.
100% success of PKFT compensatory plantings.	Monthly monitoring, maintenance and reporting during year 1, and then quarterly until each tree reaches 5 m in height.	Any mortality of compensatory PKFT plantings.	Review planting regime and methods and remove and replace failed planting(s). Increase monitoring until 100% success rate is achieved.

Summary

Based on our review of the amended masterplan and the removal of introduced trees, relevant changes to the KPOM (Biolink 2018) for 14-20 Flynn Street, Port Macquarie have been provided in this document.

Please don't hesitate to contact the undersigned if you require any further information.

Kind regards,



Grant Brearley
Senior Ecologist

References

Biolink (2018). Koala Plan of Management for the Area – Flynn Street, Port Macquarie. Prepared for White + Dickson Architects. Biolink Ecological Consultants.

Clements, A., Snowdon, R., and Rodd, T. (2017). Vegetation Management Plan for 14-20 Flynn Street, Port Macquarie (Lot 331 in Deposited Plan 828346 and Lot 24 in Deposited Plan 22883). Draft Report for White + Dickson Architects. Anne Clements and Associates Pty Ltd, Milsons Point, North Sydney, NSW.

JBEnviro (2018). Vegetation Management Plan: 14-20 Flynn Street, Port Macquarie. Prepared for Builtsmart Group Pty Ltd. JBEnviro, Port Macquarie, NSW.

Woodvale (2019). Arboriculture Impact Assessment Report: 14-20 Flynn Street, Port Macquarie NSW. Site Assessment Conducted and Report prepared by: The Tree MD Pty Ltd (Geoffrey Ashton AQF 5 in Arbiculture).



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Appendices

Appendix A – Flood Modelling Graphical Results and Flood Hazard Maps

Appendix B – Draft Evacuation Plan

1. Introduction

1.1 Background

GHD was commissioned by Builtsmart Pty Ltd on the behalf of the owner, Flynn's Beach resort, to provide a Flood Assessment supporting a Development Application (DA) for proposed new villas to the existing resort at 14 -18 Flynn's Street, Port Macquarie, 2444.

Development DA2017.885 gained consent from Council at its Development Assessment Panel (DAP) meeting on 27 June.

Additional flooding assessment has been carried out for Villas 46 to 53 which forms stage 3-5.

The site is located on the Southern side of Flynn's street, between Flynn and Ocean streets and is traversed by Wrights creek along the eastern side of the site. The site location is shown in Figure A. The proposal is to construct new high set single storey accommodation villas on the site to complement the existing multi storey resort complex. All development proposal drawings and information was provided to GHD by White and Dickson architects.

Site Locality



2. Development

2.1 Existing

The existing site fronts Flynn Street and drains to Wrights Creek which traverses the site along the eastern side. The site is located upstream of Flynn's street and downstream of Ocean street. Existing box culverts convey Wrights creek under at Flynn's street. The site contains the following:

- An existing 6 storey resort complex which is to be retained.
- Resort pool and landscaping around the existing complex which is to be retained.
- An existing single storey building on the east side of Wrights creek which is to be demolished. This existing building is of masonry construction and sits on a ground supported raft concrete slab.

2.2 Proposal

The proposed development is to provide new single storey villa units on the southern part of the site behind the existing resort complex. Development approval has been given in general for villas on the western part of the site to Wrights Creek. This flood report is for the proposed Villas 46-53 as shown in Stage 3-5 of the Masterplan.

The proposed villas will have floor levels set well above the 1% AEP flood level including freeboard allowance for climate change effects. Ground levels in the proposed location are at approximately RL 12.0 m Australian Height Datum (AHD).

Key items of the proposal are:

- Demolish the existing on grade building on the east of the site and increase flood storage.
- Provide elevated villa units 46 to 53 with open under floor areas. The floors levels will be at 1.10 m above the 1% annual exceedance probability (AEP) flood event so there is no flooding of the units and to reduce the risk of flood effects to adjacent properties.
- The villas will be supported on structural steel post and beam structure. This will minimise the effects to the existing flood regime and will be designed for flood and debris loading on the buildings.
- Emergency evacuation routes will be provided by an elevated boardwalk from the east villas No's 52 and 53 to the existing site egress path to high ground and services in Pacific Drive.
- Emergency evacuation routes from Villas 46 to 51 will be to high ground at the western part of the site outside the flood area as well as to the existing building. Flood refuge is provided within the proposed villas, within the existing building and onsite outside the flood zone.
- There will be no accessible villas within Villas 46 to 53. DDA compliant villas are located within Villas 1 to 45 to the west, above any flood effected part of the site, and previously approved.

3. Flood modelling

Flood modelling has been undertaken for the proposed development. The modelling has been carried out as follows:

- Existing flood data provided from PMHC from the existing 2007 RMA2 flood model. The output data for the site from this model has been used in the modelling.
- A self standing TUFLOW model of the Wrights creek area that traverses the site has been established. The model has been calibrated to the RMA2 model by matching the 1:20 and 1:100 flood contours and velocities. Modelling of the effects of the existing buildings around the site was also matched with the RMA2 model where the existing buildings impact the flow.
- Existing survey of the site ground levels and existing buildings were included in the TUFLOW model. The existing survey allowed additional data of ground levels to be included in the model. The RMA2 model utilised LiDAR data and this has been enhanced by incorporating more refined survey data of the site.
- The TUFLOW model was run to simulate the existing conditions, flood levels and velocities.
- The proposed villa development was placed in the model including the proposed on ground utility buildings adjacent the existing resort complex. The proposed building that is to be removed as part of the development was also included in the modelling.
- Potential blocking of flood way and storage beneath the proposed villas due to debris was simulated as required by the PMHC flood policy. This was carried out by increasing the surface roughness in the villa area to restrict the flow beneath the building to 50% flow rates. This models 3D effects beneath and around the buildings and the effect on the adjacent areas.

Pre and post development results are provided below. Graphic printout from the model is included in the Appendix.

3.1 Hydraulic results from flood modelling**Flood Afflux****3.1.1 20 year ARI Pre and post development modelling results**

20 year	Post development		Pre development			
Location	Depth (m)	Velocity (m/s)	Depth (m)	Velocity (m/s)	VxD post	Vx D pre
1	0.359	1.254	0.369	1.25	0.45	0.46
2	0.296	1.853	0.289	1.827	0.55	0.53
3	0.852	0.69	0.841	0.673	0.59	0.57
4	0.617	0.422	0.61	0.454	0.26	0.28
5	0.602	0.536	0.589	0.538	0.32	0.32
6	0.568	0.418	0.26	0.512	0.24	0.13
7	0.524	0.274	0.231	0.322	0.14	0.07
8	0.426	0.549	0.415	0.66	0.23	0.27
9	0.46	0.855	0.468	0.827	0.39	0.39
10	0.7	1.023	0.701	1.019	0.72	0.71
11	0	0	0	0	0.00	0.00
12	0.028	0.554	0.03	0.541	0.02	0.02
13	0.348	0.408	0.335	0.434	0.14	0.15
14	0.078	0.132	0.123	0.133	0.01	0.02

3.1.2 100 year ARI Pre and post development modelling results

100 year Location	Post development		Pre development		VxD post	VxD pre
	Depth (m)	Velocity (m/s)	Depth (m)	Velocity (m/s)		
1	0.434	1.587	0.447	1.634	0.69	0.73
2	0.38	2.22	0.381	2.231	0.84	0.85
3	0.992	0.955	0.955	0.965	0.95	0.92
4	0.823	0.628	0.841	0.715	0.52	0.60
5	0.829	0.698	0.832	0.793	0.58	0.66
6	0.803	0.494	0.517	0.647	0.40	0.33
7	0.761	0.317	0.475	0.421	0.24	0.20
8	0.655	0.785	0.659	0.802	0.51	0.53
9	0.624	0.923	0.629	0.969	0.58	0.61
10	0.908	1.086	0.917	1.116	0.99	1.02
11	0.033	0.345	0.051	0.42	0.01	0.02
12	0.113	0.728	0.127	0.762	0.08	0.10
13	0.571	0.546	0.558	0.602	0.31	0.34
14	0.304	0.164	0.318	0.167	0.05	0.05

3.1.3 Velocity x depth results

The pre and post development velocities x depth ratio in the vicinity of the villas and the evacuation routes are at a maximum of 0.14 m²/s. The maximum changes in VxD ratios following the development is 0.02 m²/s.

These ranges are within the low risk category for safe evacuation

3.2 Hazard mapping from flood modelling

Hazard mapping has been extracted from the modelling for the 20 year ARI and the 100 year ARI events.

This data is included in the Appendix and discussed in Section 4.

4. Assessment

4.1 Design flood data

Design flood data at the site was sourced from the PMHC 2007 flood model.

4.1.1 Flood levels and velocities

The peak flood levels at the site are shown below. Flood maps are shown in the Appendix.

Design Flood Levels (m AHD)

20 year ARI		100 year ARI	
12.25		12.50	

4.1.1.1 20 year ARI Event

During a 20 year ARI flood event, the maximum velocity of floodwaters in the vicinity of the villas is as follows:

- Villas 46-48 – outside flood area
- Villas 49-51 – 0.41 m/s
- Villas 52-53 – 0.40 m/s

The flood depth is predicted to be as follows:

- Villas 46-48 – outside flood area
- Villas 49-51 – 0.52 m
- Villas 52-53 – 0.35 m

The habitable floor level for the villas will be at RL13.6m, 1.35 m above the 5% AEP level.

4.1.1.2 100 year ARI Event

During a 100 year ARI flood event, the maximum velocity of floodwaters in the vicinity of the villas is as follows:

- Villas 46-48 – outside flood area
- Villas 49-51 – 0.49 m/s
- Villas 52-53 – 0.54 m/s

The flood depth is expected to be as follows:

- Villas 46-48 – outside flood area
- Villas 49-51 – 0.80 m
- Villas 52-53 – 0.57 m

The habitable floor level for the villas will be at RL13.6m which is 1.10 m above the 1% AEP level.

4.1.2 Flood zones

The PMHC flood Report depicts Provisional Hazard Mapping for the 100-year ARI flood event. This is delineated into categories based upon depth, velocity and hazard (velocity x depth) criteria. The majority of the site is located outside the flood effected area.

Hydraulic Categories are also defined by The Floodplain Development Manual based on depth, velocity and hazard (velocity x depth) criteria as Floodway, Flood Storage and Flood Fringe. The proposed villas are located part in a Flood fringe and part in a Flood Storage zone.

4.2 Hazard assessment

Hazard mapping has been carried out as part of the TUFLOW modelling. The maps are included in the Appendix.

During a 20 year ARI and 100 year ARI event the flood hazard is as follows.

Villa	20 year ARI category	100 year ARI category
V46	H1	H3
V47	Not effected	H1
V48	H1	H3
V49	H3	H3
V50	H3	H3
V51	H3	H3
V52	Not effected	H1
V53	H1	H1

Further analysis of the localised hazard has been carried out with reference to the Australian Disaster Resilience Handbook – Technical Flood Risk Management Guideline: Flood Hazard. This is shown on the below vulnerability curves for the egress from each villa and the structural stability curve for the proposed buildings.

Technical flood risk management guideline: Flood hazard

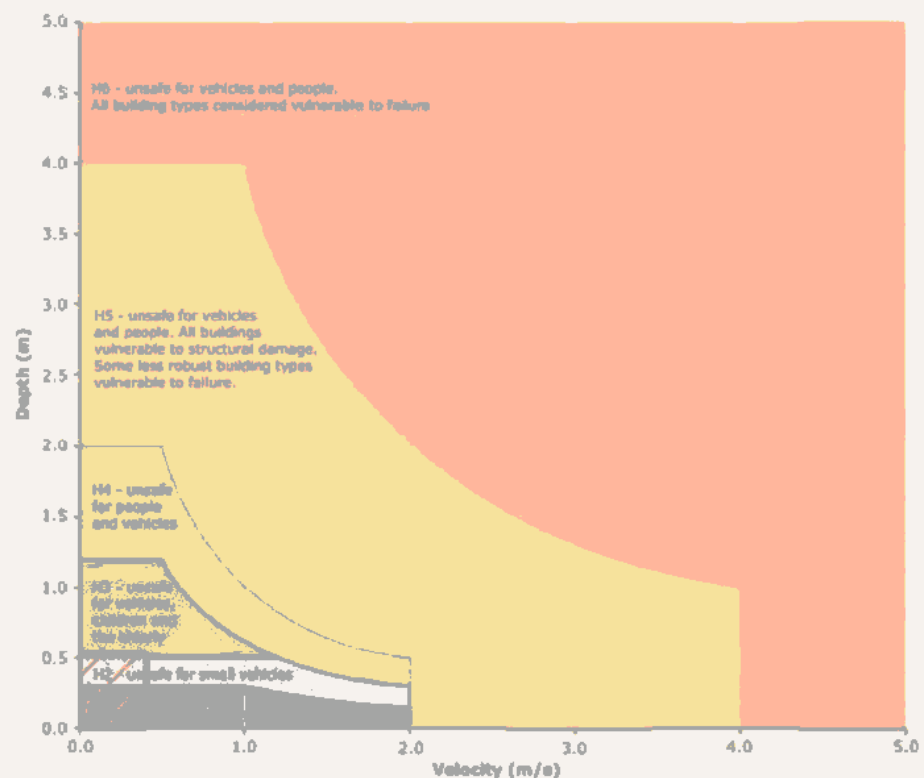


Figure 4-1 General flood hazard vulnerability curves – 20 year ARI

Technical flood risk management guideline: Flood hazard

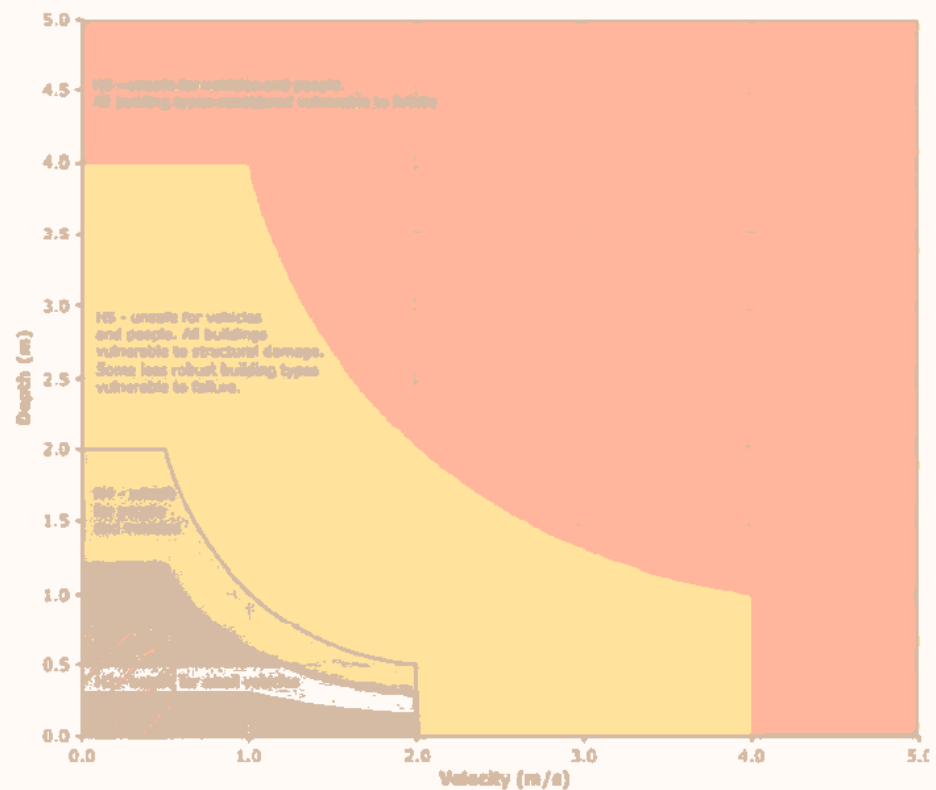


Figure 4-2 General flood hazard vulnerability curves – 100 year ARI

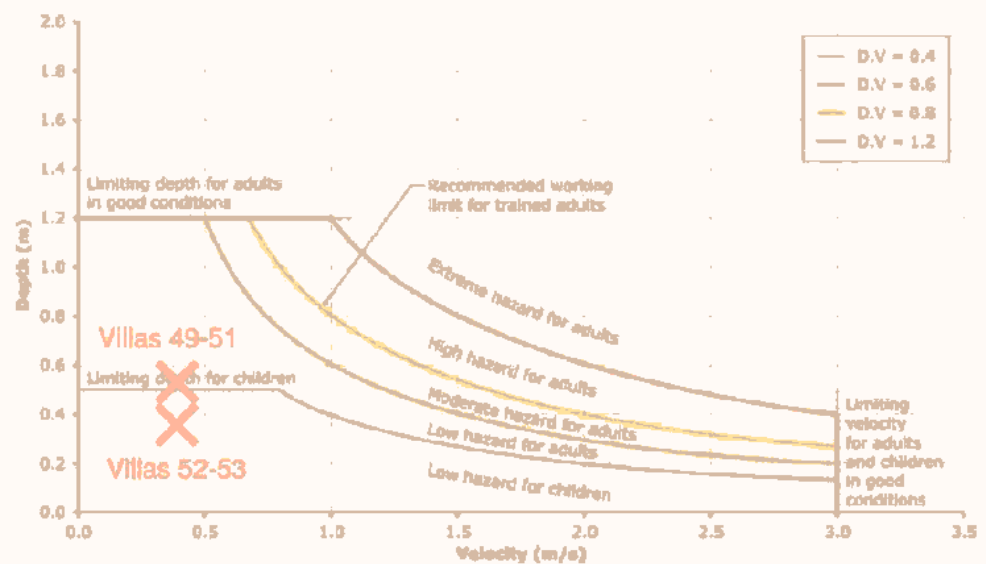


Figure 4-3 Threshold for people stability in floods – 20 year ARI

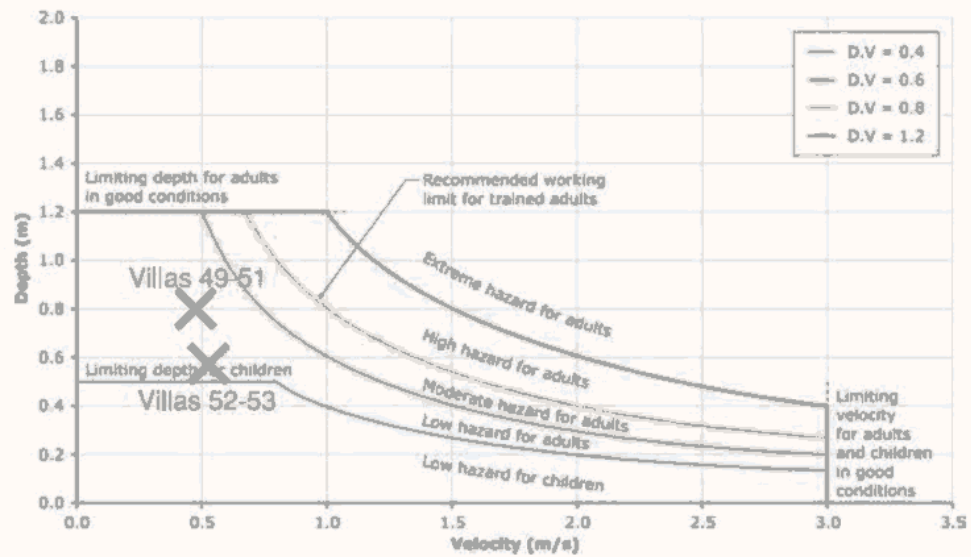


Figure 4-4 Threshold for people stability in floods – 100 year ARI

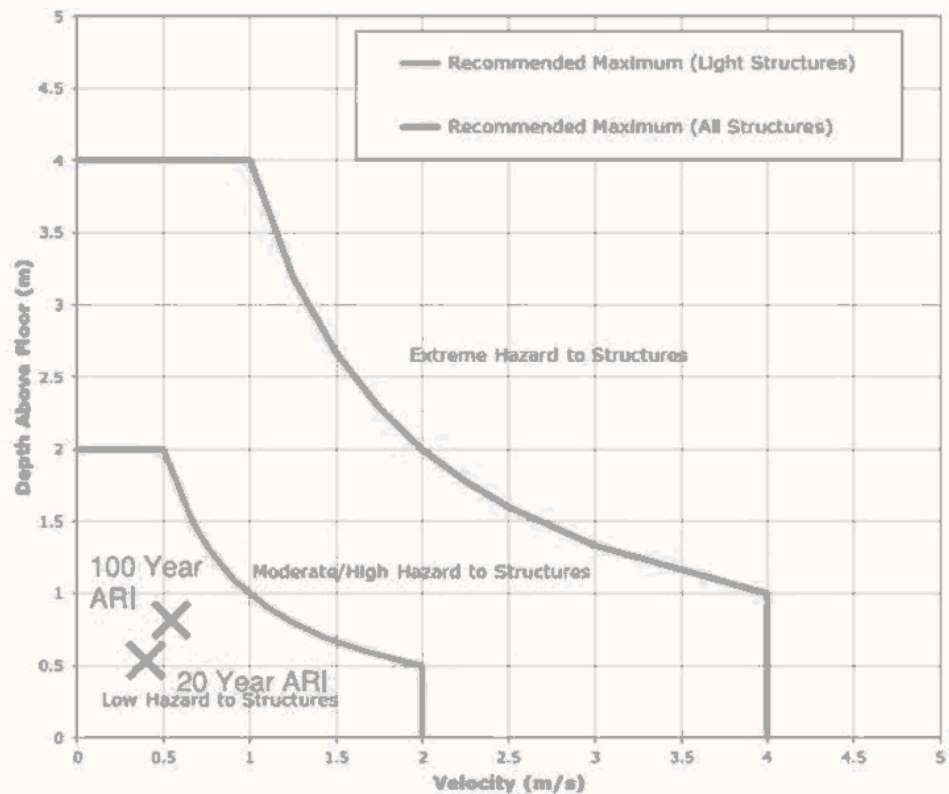


Figure 4-5 Threshold for building stability in floods

As shown, the proposed villas and emergency egress routes from the villas are classified as low hazard.

4.3 Impact of the development on flood levels

As outlined in Section 3, the flood modelling undertaken shows that the change in flood level, velocity and velocity x depth relationships from the proposed villas has minimal impact on adjacent upstream and down stream properties. The change in depths at the adjacent properties are within the 10 mm category as defined in the PMHC flood policy.

4.4 Flood prediction and warning

Flood information including flood forecasts, road closures, and advice on evacuation are broadcast over local radio and TV stations, which is disseminated by the Bureau of Meteorology (BOM). As part of the development approval, a flood management and evacuation policy will be put in place. This is discussed in Section 5 and a draft evacuation policy is included in the Appendix.

5. Flood safety and evacuation

5.1 Preparation

Flood readiness is the single most important safety measure during a flood to ensure the safety of persons and minimum damage to property. The SES has relevant information available to prepare for a flood, how to respond to a flood and getting the landowner best suited to the particular area under consideration. Information on flood readiness can be found on the SES website www.ses.nsw.gov.au.

The Port Macquarie – Hastings Local Flood Plan is also to be referenced in preparation of a flood management plan for the site. These documents are to be checked regularly to ensure the most up to date information is being used.

5.2 Flood duration

Reference to the hydraulic modelling in the Wrights Creek Flood Study, provided by PMHC indicates the rate of rise to reach peak water level from the onset of rain is just over an hour. Refer Figure 5-1.

DESCRIPTION OF LOCATION	TIME TO PEAK FOLLOWING INITIAL ONSET OF RAINFALL (minutes)					
	5 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	PMF
Upstream of Kooloonbung pedestrian bridge	84	84	83	81	80	65
Upstream of Lake Road	81	81	80	81	77	65
Upstream of Grant Street	78	78	72	69	68	65
Corner of Mailawa Cres and Home Street	78	75	65	66	65	62
Upstream of Hill Street	75	69	69	69	65	59
Confluence of Wrights and Yarrabee Creeks	75	69	69	69	65	59
Upstream of Lord Street	72	69	69	69	65	59
Corner of Owen and Everard Street	69	69	69	72	68	62
Upstream of Chalmers Street pedestrian bridge	63	63	65	64	62	62
Upstream of Flynn Street	63	66	65	66	62	59
Upstream of Ocean Street	63	60	57	57	53	53
Upstream of Swift Street	63	57	54	54	52	50
Upstream of Leanda Street	54	48	48	48	45	44
Parklands Ave/Parklands Close	39	39	39	39	39	41
Northern end of Calwalla Cres	54	51	51	51	50	41
Corner of Calwalla Cres and Pindari Pde	51	48	48	48	48	41
Upstream of Shelley Beach Road	42	42	42	42	42	35
Corner of Kaballa Ave and Moonah Parade	38	39	39	39	39	30
Downstream of Wilga Parade	35	33	33	33	33	17

Figure 5-1 Flood lag for Wrights Creek

Reference also to the hydrographs from the Wrights Creek Flood Study indicates a total flood time of 3 hours from onset of rainfall. The time of recession of flood water level is approximately 2 hours following peak. Refer Figure 5-2.

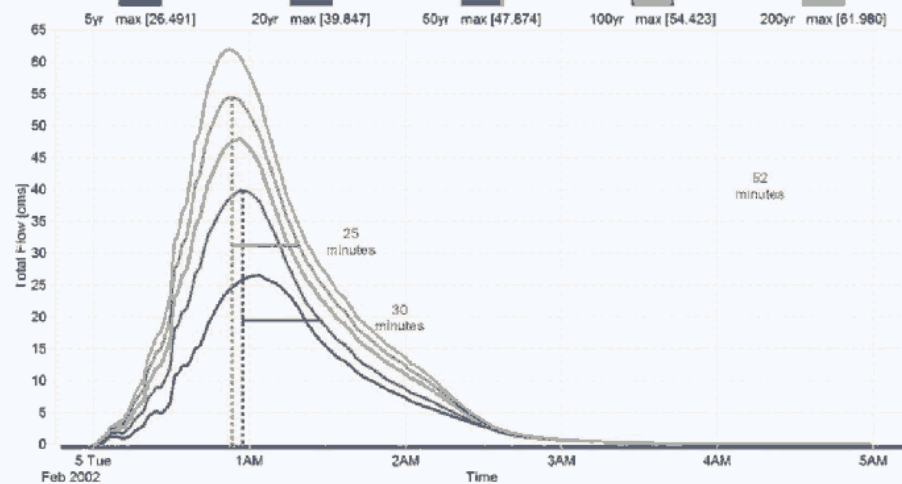


Figure 5-2 Flood hydrograph

The emergency evacuation routes from the villas are located in the flood fringe and flood storage areas where the water depths and velocities are categorised as low hazard.

Further review of the hydrograph shows that the duration from peak to 50% flow is relatively quick at 25 to 30 minutes.

5.3 Flood refuge

The floor level of the buildings is set at least 1.1 m above the predicted 100 year ARI event and 1.35 m above the provided 20 year ARI event. The structure of the buildings is within the low hazard category and will be designed for the effects of flood water and debris. As such the buildings can be utilised as flood refuge for the duration of flood events. Should evacuation be required, this will be by the evacuation routes which are also within areas classified as low hazard.

5.4 Evacuation plan

An evacuation plan for the total site, indicating the proposed villas. A copy is included in Appendix.

6. Conclusion and recommendation

6.1 Conclusions

It is considered that, based upon currently available flood information, the development proposal, and associated flood risk to occupants and effects on adjacent properties is low and within PMHC policies. As such it is considered that the Development Application (DA) for villas 46-53 be granted approval with respect to flooding.

During the inundation by floodwater from Wrights Creek, conditions will develop in a 100-year ARI event that will require an effective flood management plan for refuge and/or evacuation to high ground after a specific time within the flood event.

Due to the nature of flooding at this location (short duration to peak at approximately 60 minutes followed by short duration for water receding at approximately 120 minutes) it has been demonstrated that with a flood management plan in place, and managed by the on site staff, there are adequate low risk options for "stay-in-place" or to evacuate the site. The evacuation paths for the villas are via low hazard flood fringe areas to high ground and services. The evacuation routes are by graded paths.

The proposed villa floor levels are set at 1.1 m above the 100 year ARI event. This includes the minimum requirement of 500 mm freeboard plus 400 mm allowance for climate change effects. In a more frequent 20 year ARI event, the floor levels are 1.35 m above water level. The stability requirements for the structures within the flood area are also low hazard.

The proposed works are considered unlikely to represent a significant change to site flood conditions including the adjacent properties. This includes consideration of climate change.

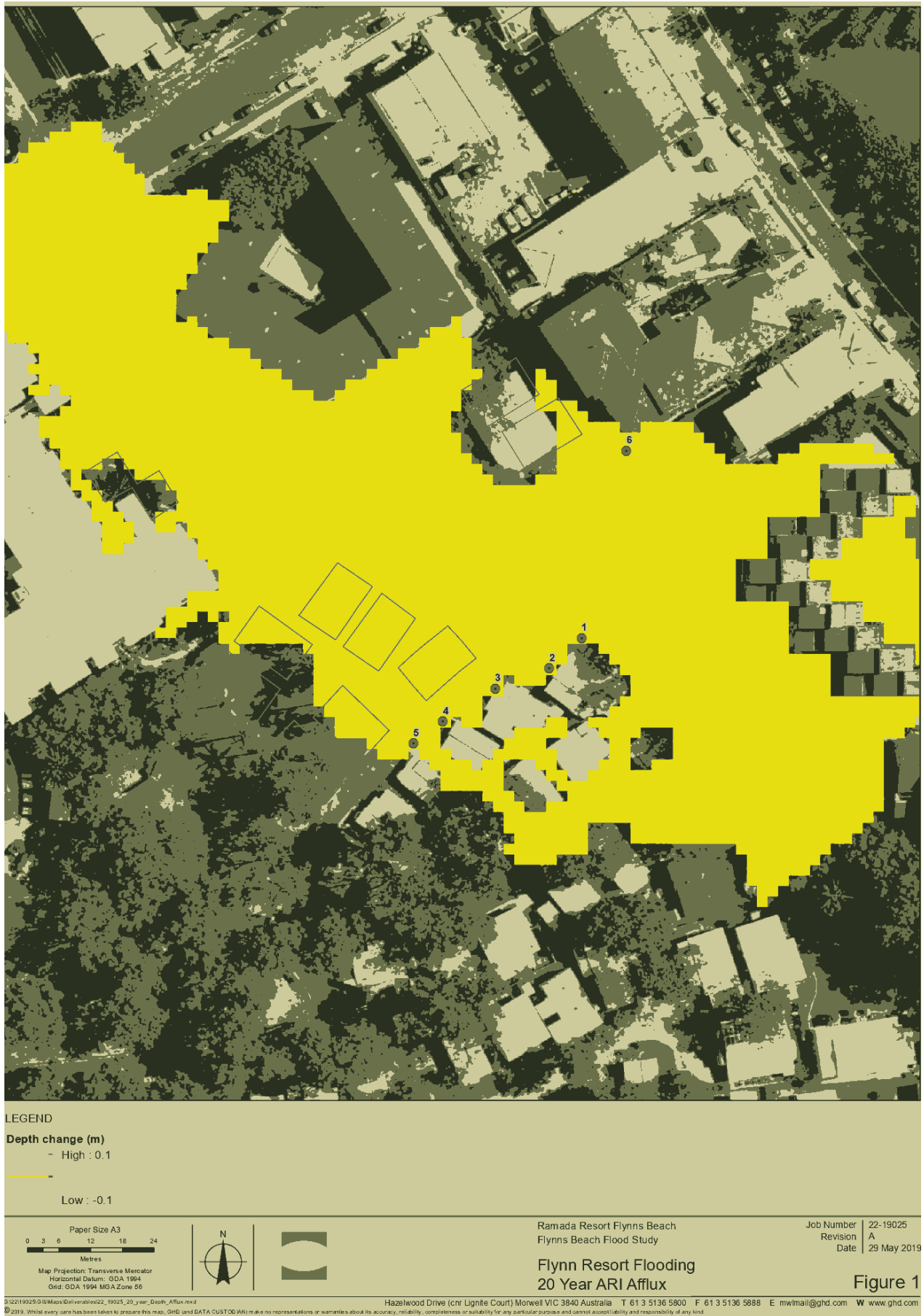
6.2 Recommendations

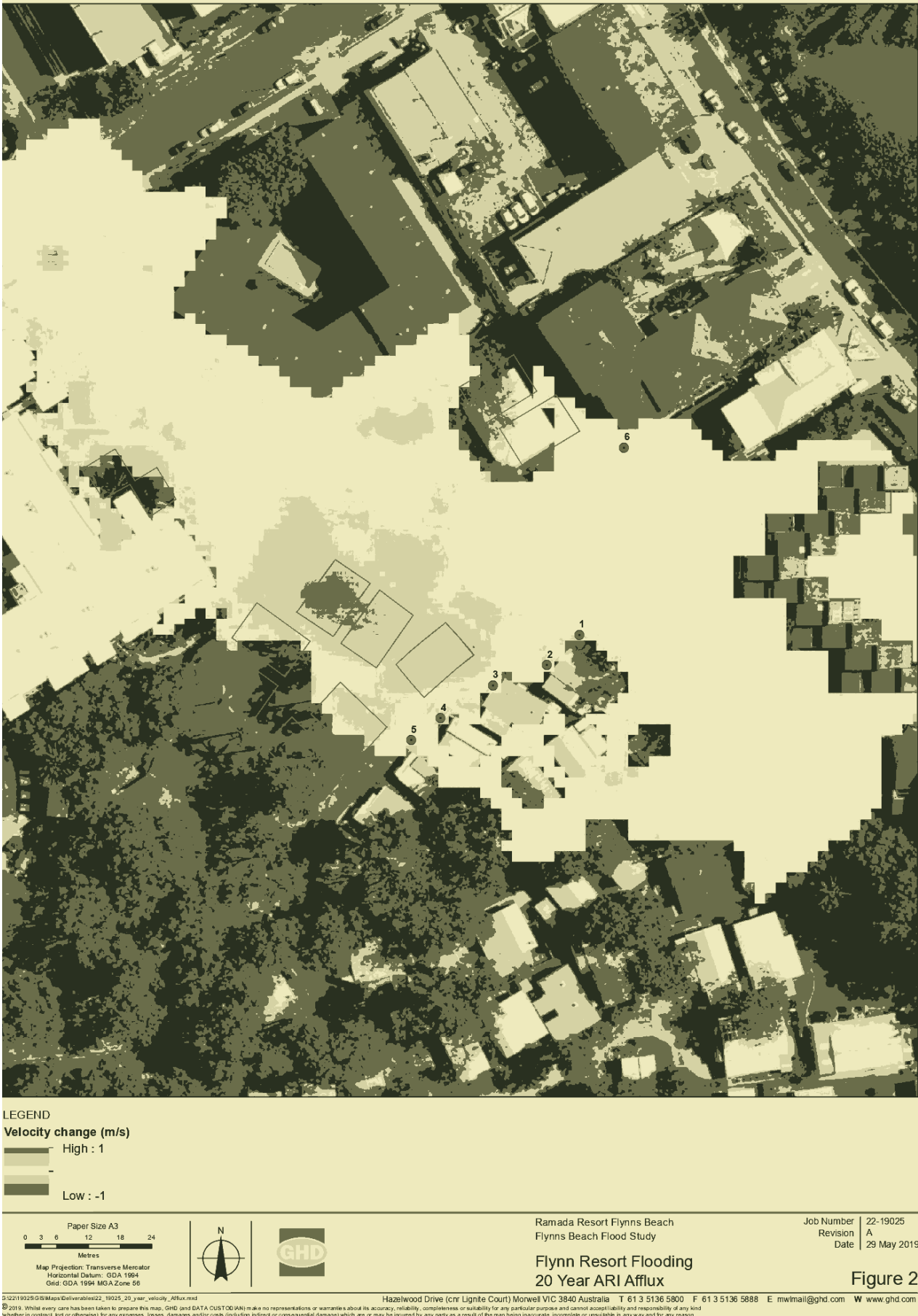
The following recommendations to the DA as part of this flood assessment report:

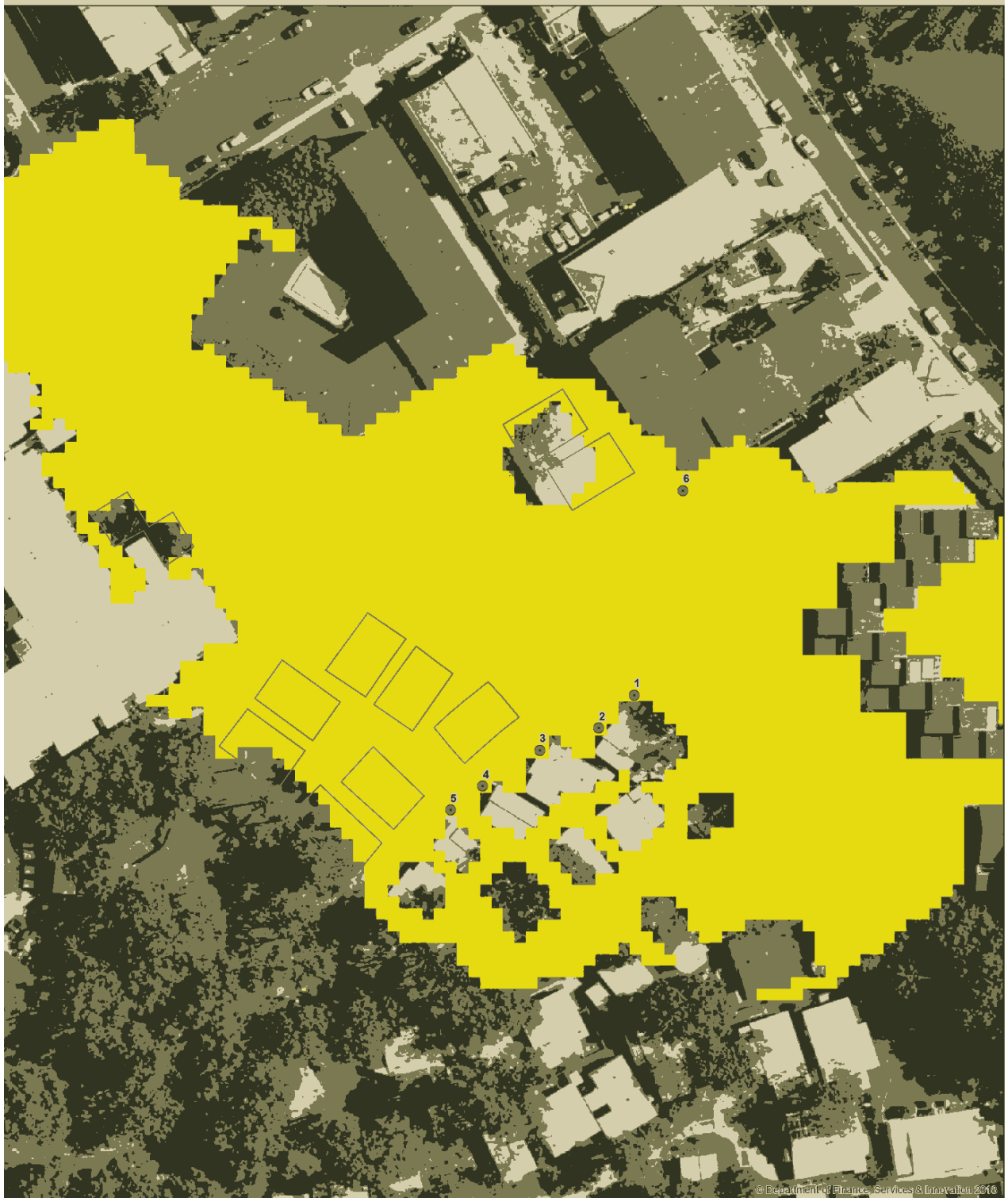
- All parts of buildings below the Flood level shall be constructed from flood compatible materials.
- All buildings shall prior to occupation be certified by a civil or structural engineer that the structures can withstand the forces of floodwaters, buoyancy and debris loadings up to the 1:100 year flood plus freeboard.
- There will be no infill below floor levels of the villas that will impede the flood water flow.
- The proposal includes a 200 mm lowering of the existing ground level below Villas 49-51.
- The adopted PMHC Local Flood Plan contains valuable information relating to preparedness, response, and recovery stages during a flood event. This document is shall form part of the on site flood management plan.

Appendices

Appendix A – Flood Modelling Graphical Results and Flood Hazard Maps







LEGEND

Depth change (m)

High : 0.1

Low : -0.1

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Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1984
Grid: GDA 1984 MGA Zone 56



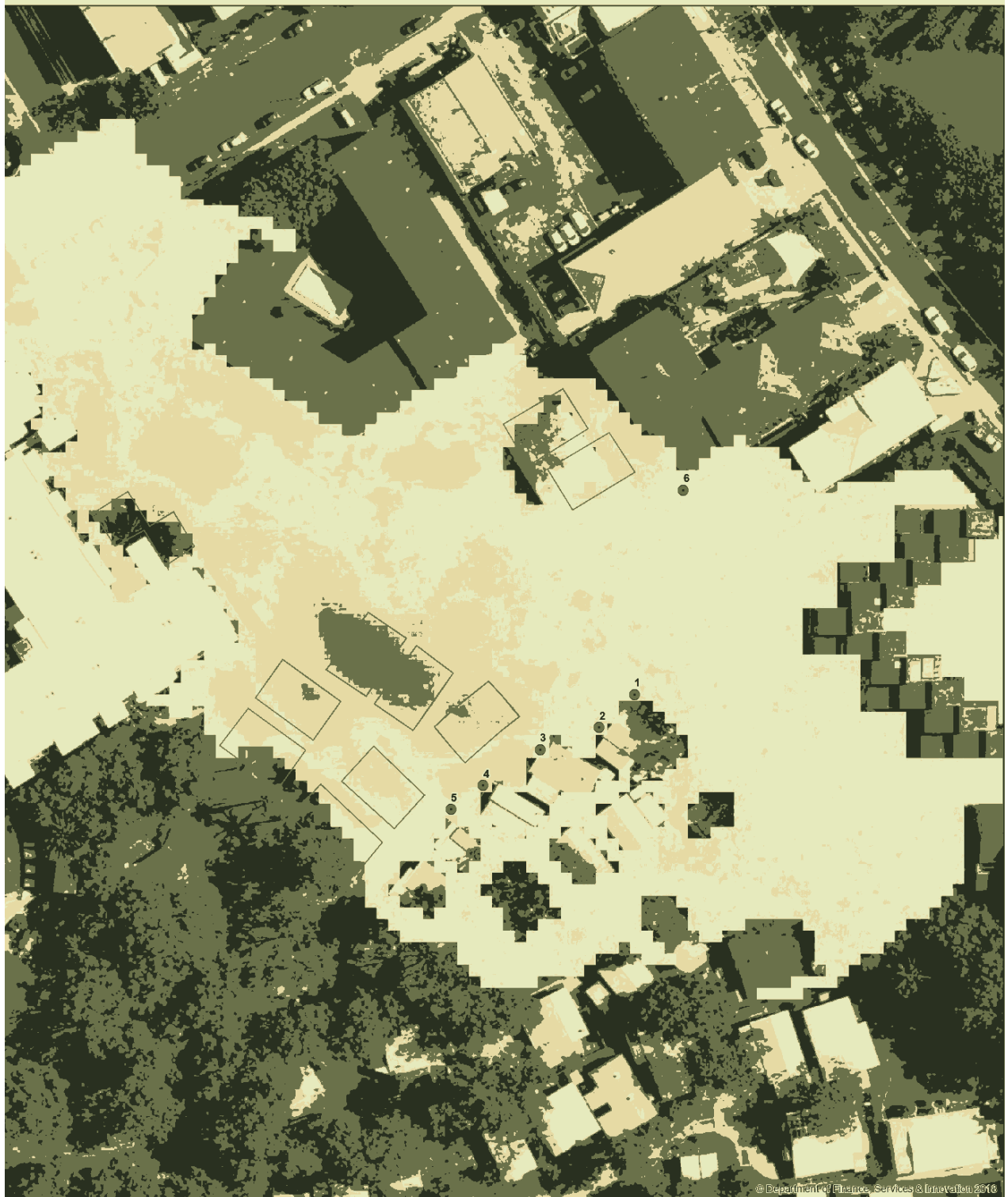
Ramada Resort Flynn's Beach
Flynn's Beach Flood Study

Job Number | 22-19025
Revision | A
Date | 29 May 2019

Flynn Resort Flooding
100 Year ARI Afflux

Figure 3

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LEGEND

Velocity change (m/s)

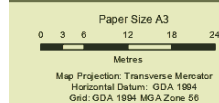
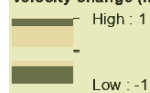
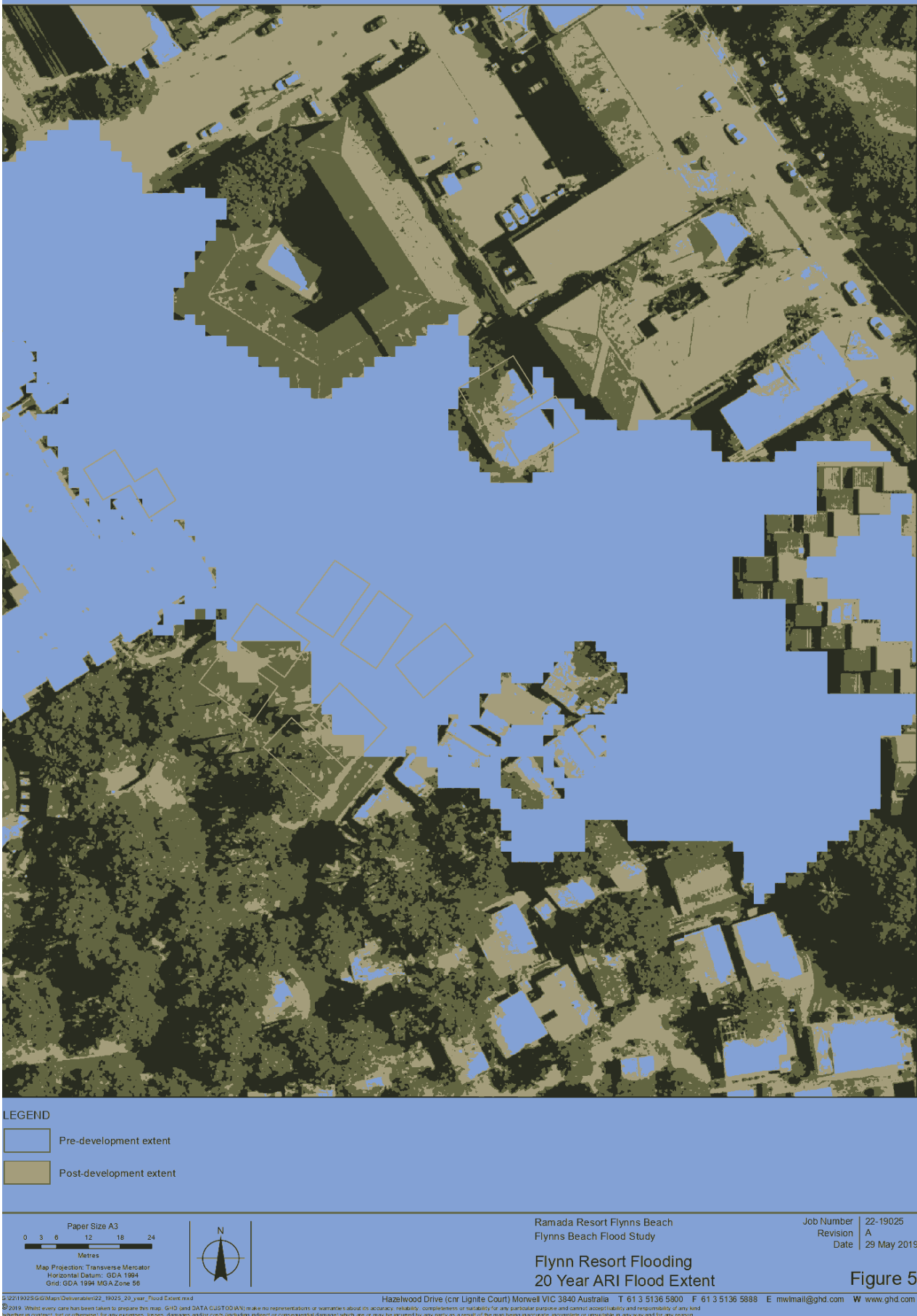
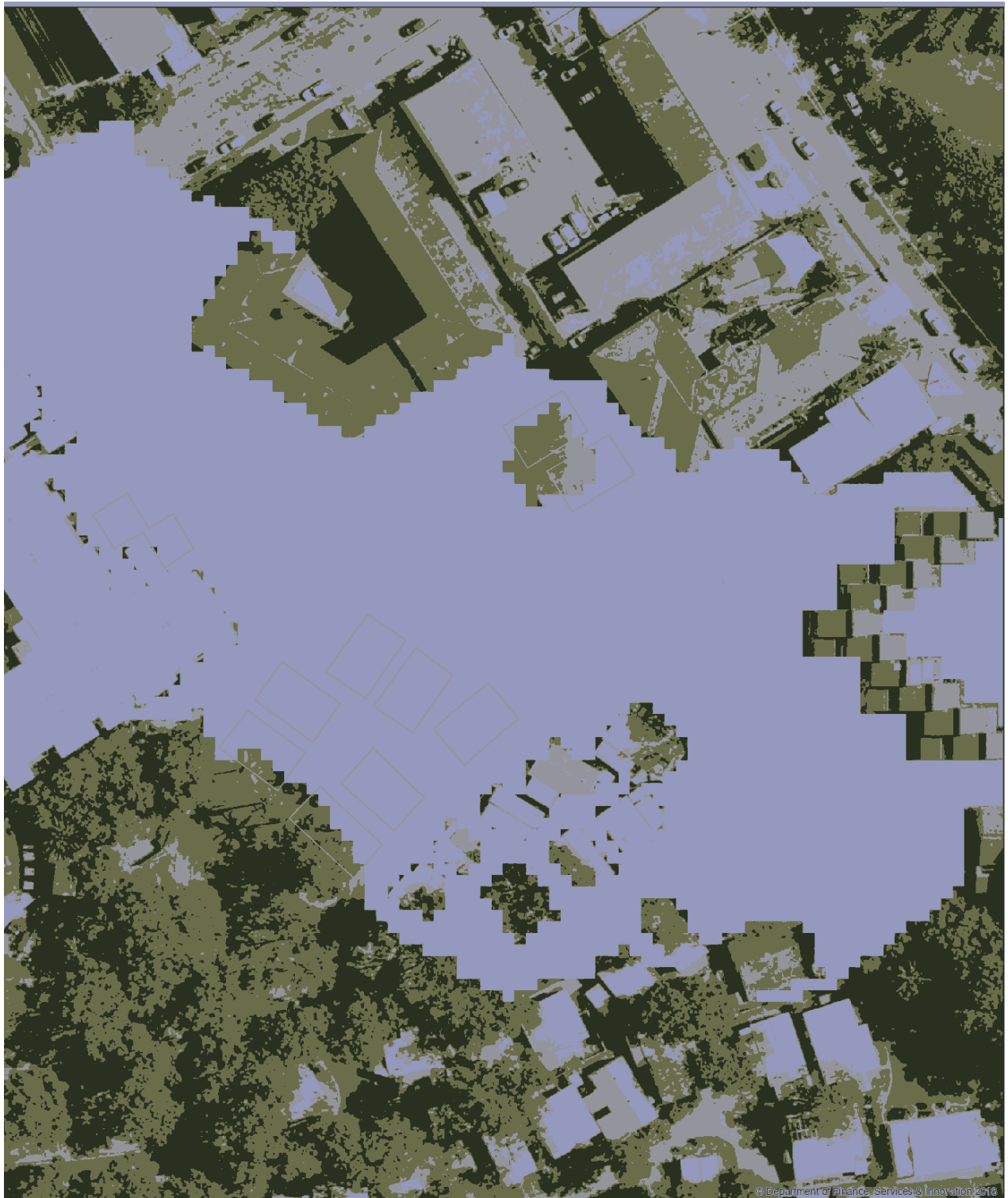
Ramada Resort Flynnn Beach
Flynnn Beach Flood StudyJob Number | 22-19025
Revision | A
Date | 29 May 2019Flynnn Resort Flooding
100 Year ARI Afflux

Figure 4


G:\2019\2019\GIS\Map\Deliverables\22_19025_100_year_velocity_Afflux.mxd
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LEGEND

-  Pre-development extent
-  Post-development extent

Paper Size A3
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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



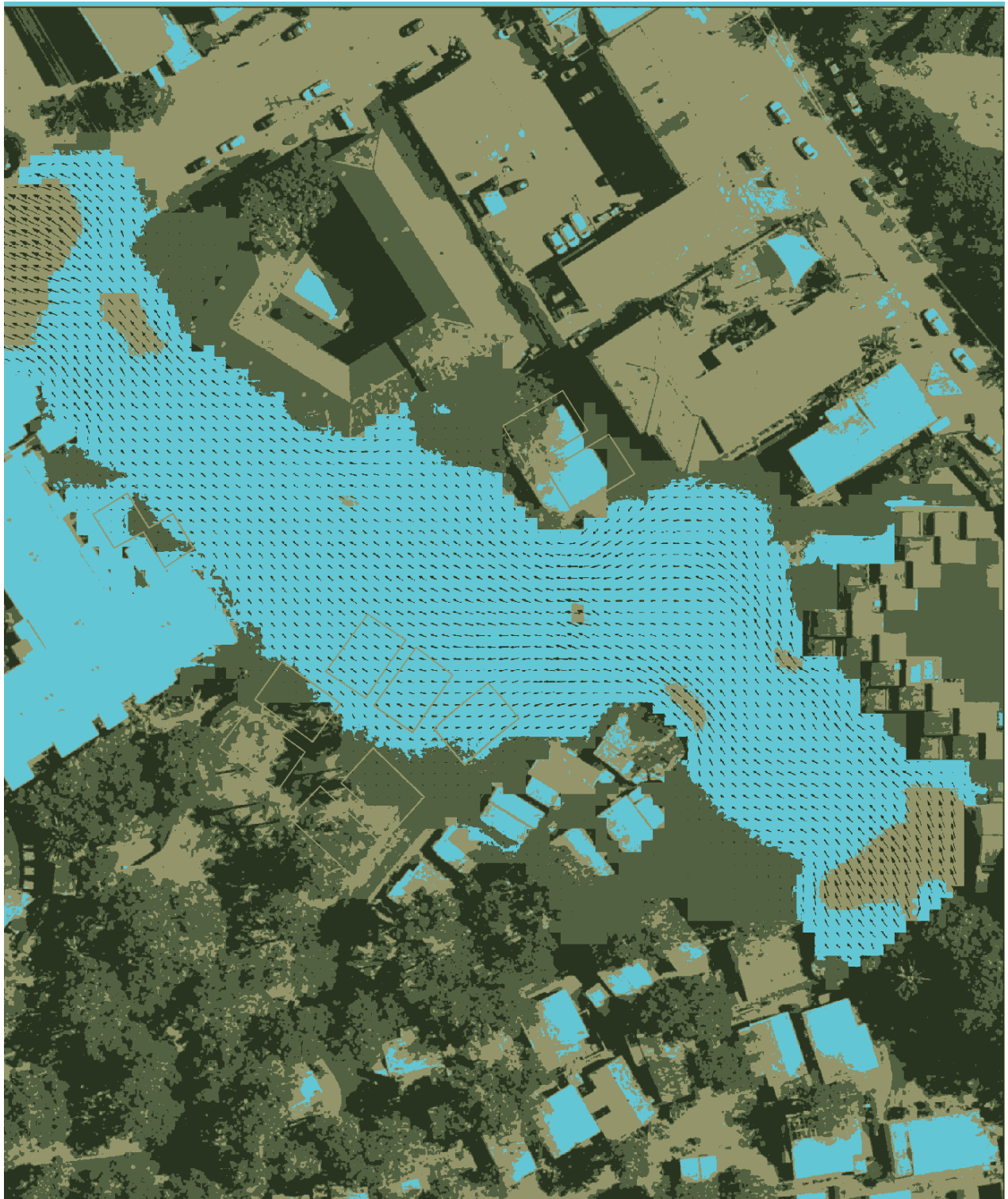
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Flynnn Beach Flood Study

Job Number 22-19025
Revision A
Date 29 May 2019

Flynnn Resort Flooding
100 Year ARI Flood Extent

Figure 6

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LEGEND

Water Velocity (m/s)

High : 2.5

Low : 0

Paper Size A3
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Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



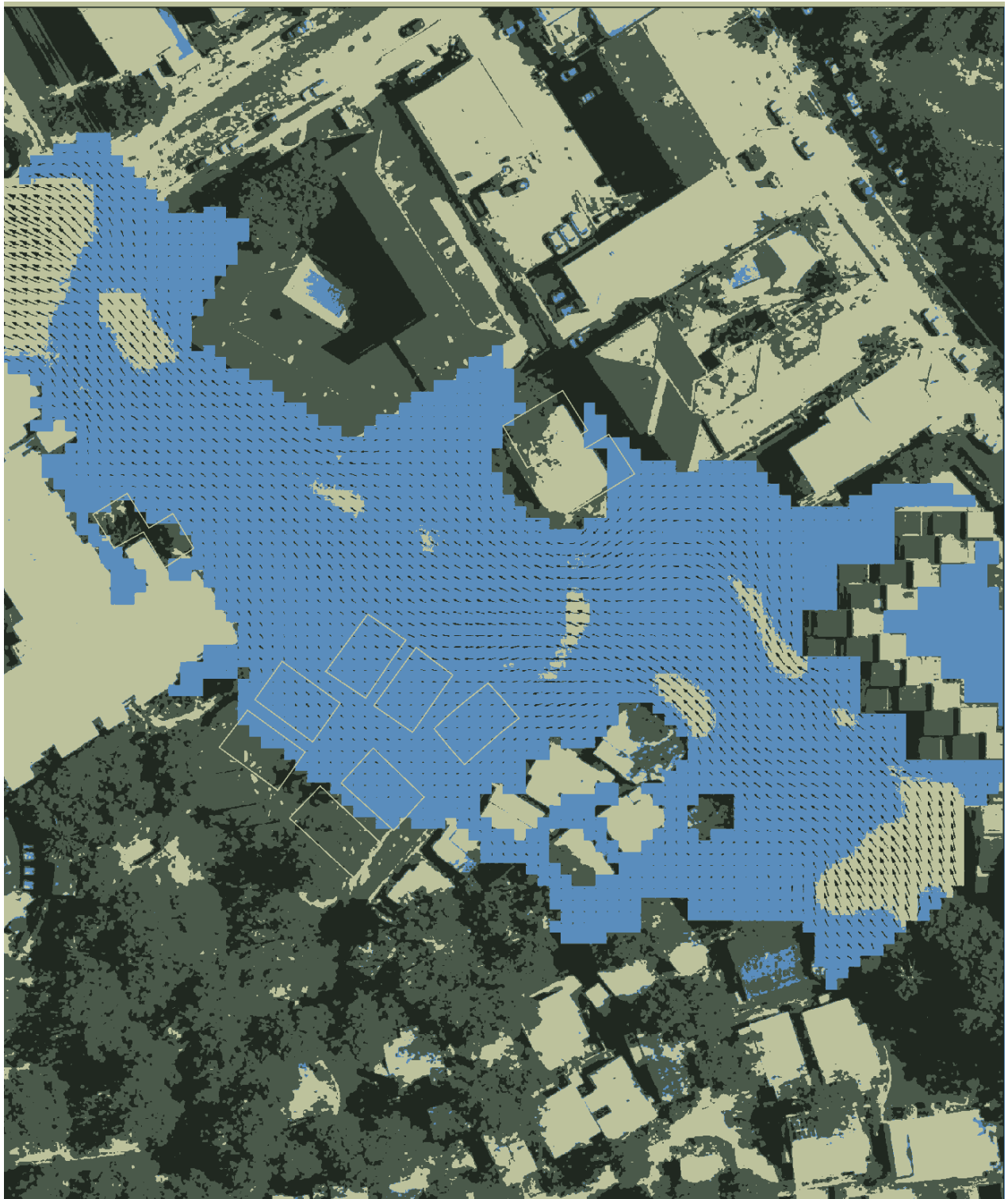
Ramada Resort Flynns Beach
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Flynn Resort Flooding
20 Year ARI Pre-development Flood Velocity

Figure 7

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LEGEND

Water velocity (m/s)

- High : 2.5

- Low : 0

Paper Size A3
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Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Ramada Resort Flynns Beach
Flynns Beach Flood Study

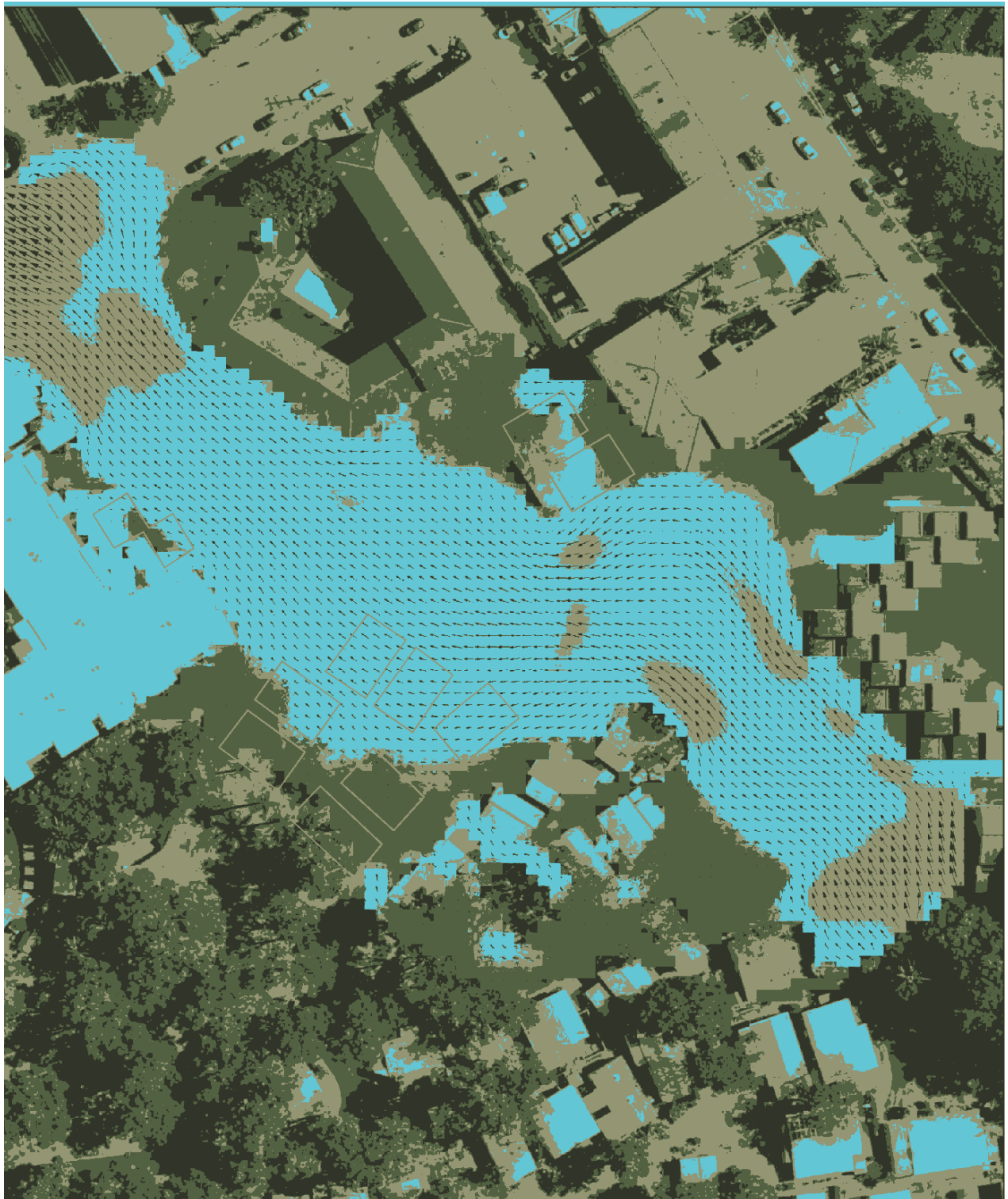
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Flynn Resort Flooding
20 Year ARI Post-development Flood Velocity

Figure 8

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LEGEND

Water Velocity (m/s)

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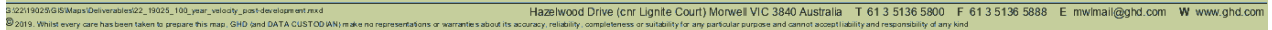


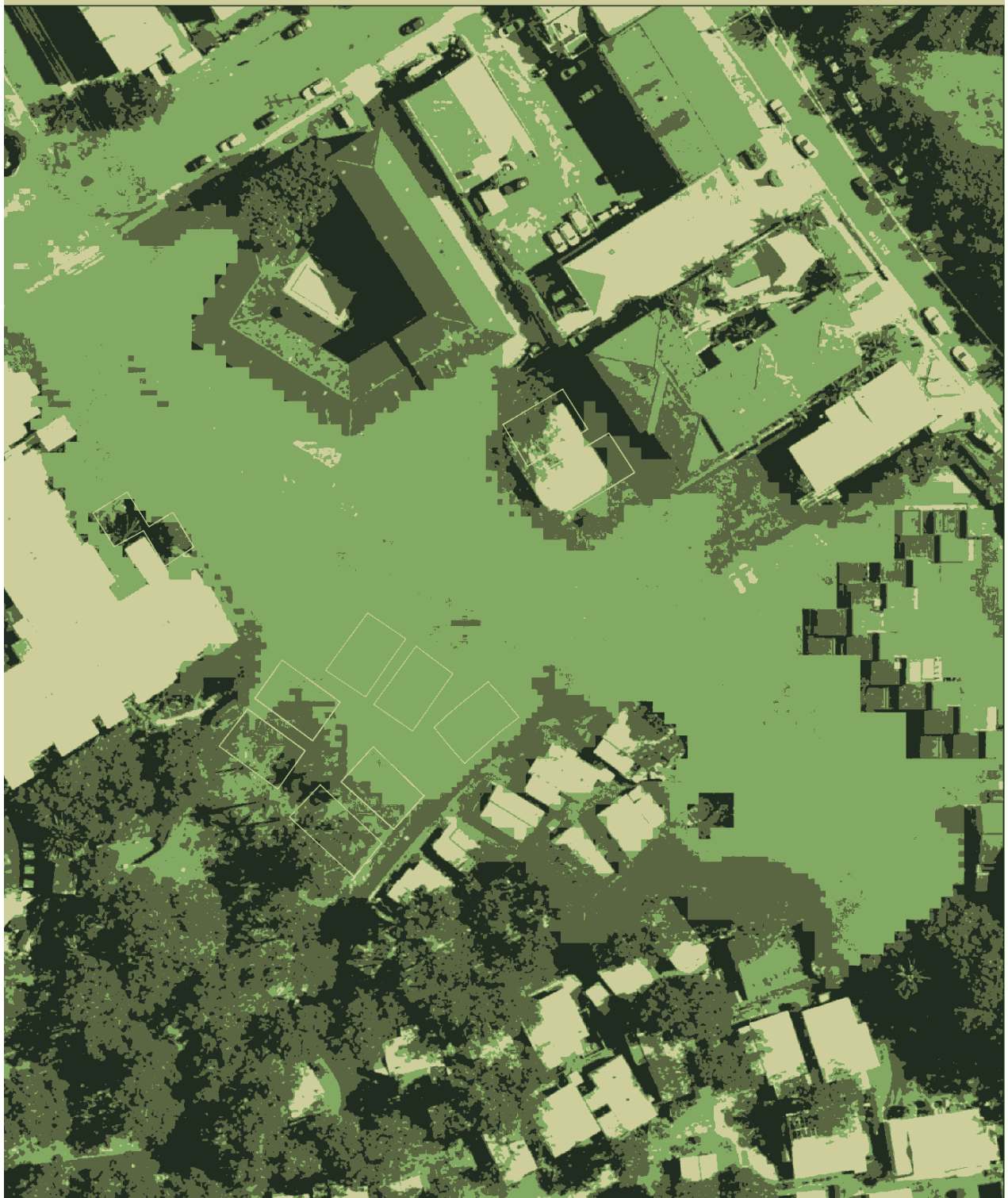
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Flynn Resort Flooding
100 Year ARI Pre-development Flood Velocity Figure 9

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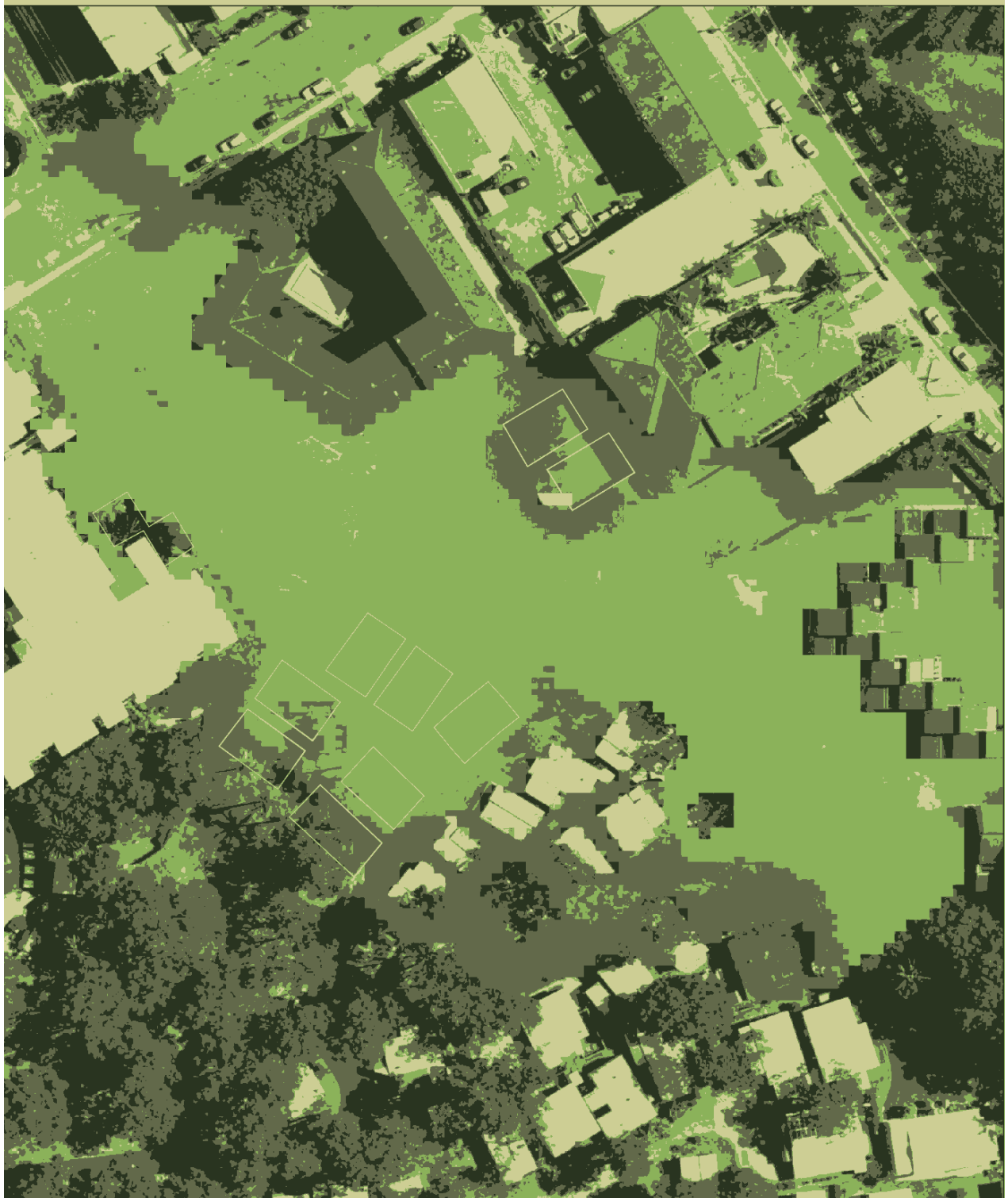


LEGEND

20yr Hazard

- H1
- H2
- H3
- H4
- H5





LEGEND

100yr Hazard

- H1
- H2
- H3
- H4
- H5

Paper Size A3
0 3 6 12 18 24
Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Ramada Resort Flynn's Beach
Flynn's Beach Flood Study

Job Number 22-19025
Revision A
Date 28 Jun 2019

Flynn Resort Flooding
100 Year ARI Post-development Flood Hazard Figure 12

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Appendix B – Draft Evacuation Plan



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Appendices

Appendix A – Evacuation Plan

Appendix B – Evacuation Diagram

1. Introduction

The site is traversed by Wrights Creek along the eastern boundary in the vicinity of Villas 46-53. Refer Figure 1 below.

During storm events, the eastern part of the site experiences flooding within the Wrights Creek area.

This evacuation plan sets out the requirements of the site management during flood events.

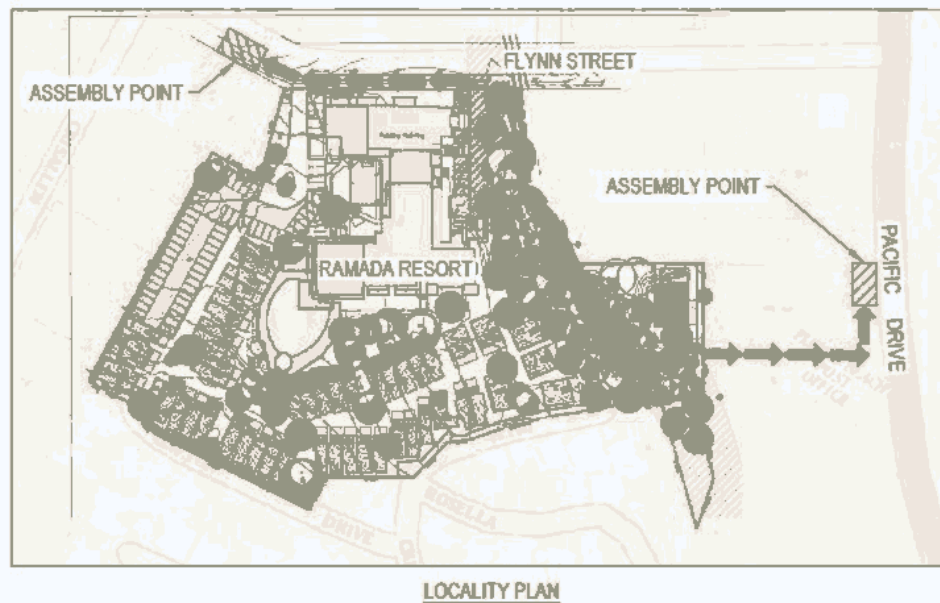


Figure 1 Site plan

2. Background information

The site is located on Flynn Street, West of Pacific Drive. Wrights Creek traverses the site along the eastern boundary.

The site has an existing multistorey masonry building on the front northern part of the site with swimming pools and leisure areas to the rear of the building. New villas are located to the west and south of the existing multistorey building.

Visitor carparking is located at the west of the site and new staff carparking is located on the east side of the main building.

The site is relatively flat and has gentle slopes to Wrights Creek on the eastern side of the site. A concrete bridge crosses Wrights Creek and an egress path to Pacific Drive is located at the east boundary.

3. Susceptibility to flooding

The site adjacent to Wrights Creek is susceptible to flooding during rainfall events. The water levels can rise quickly during these events. The villas at risk are V46-53 during the 1:20 and 1:100 year events.

The ground levels in the area of V46-53 varies from RL11.6m at the creek to RL11.90m at the boundary.

The predicted flood levels are as follows:

- 1:20 ARI event RL12.25m
- 1:100 ARI event RL 12.50m

All villa floor levels are set at RL13.60m and have egress path by way of a raised boardwalk above RL12.5m which is above the 1:20 ARI event.

During a 1:100 ARI event the predicted flood level is at the level of the boardwalk.

4. Preparation

Flood readiness is the single most important safety measure during a flood to ensure the safety of persons and minimum damage to property. The SES has relevant information available to prepare for a flood, how to respond to a flood and getting best suited to the particular area under consideration. Information on flood readiness can be found on the SES website www.ses.nsw.gov.au.

Using information gathered, the staff are to determine the appropriate times for:

- Advising other residents of impending flood conditions.
- Relocating equipment and personal effects to locations above the predicted peak flood level (as required).
- Switching off electrical equipment.
- Securing residences prior to evacuation.
- Evacuating the site.

NB: These evaluations should always be superseded by predictions made for the area by the SES.

5. Evacuation plan - Management

With reference to the site evacuation diagram (Appendix B), general evacuation of the site will be as outlined below:

- There shall be nominated emergency control staff for each work shift. These persons will take control of the site.
- The trigger for alert and preparedness will be by predicted rainfall events and the onset of rain.
- The site control staff will monitor weather forecasts.
- The trigger for evacuation of villas 46 to 53 will be for flood levels of the 20 year ARI level of RL12.25m. At the onset of rain the water level will be monitored by observation. A flood gauge alarm will trigger when water reaches RL12.0m.
- When considered necessary, and no later than the alarm being triggered, the resort site control staff will alert residents for preparation of evacuation. The below flooding checklist shall be used for all possible flooding events.

5.1 Flood refuge

The villas V46-53 have floor levels well above the 20 year ARI and 100 year ARI events. The flooding and time from onset of rain to recession of water is predicted as 3 hours total. As such the villas can be used as flood refuge.

5.2 Emergency response to flooding checklist

STEPS	ACTION	RESPONSIBLE PERSON/S	COMPLETED YES/NO
Flood Watch			
1	Obtain details about current flood situation - NSW SES, BoM website, Local Radio, Local TV. Ensure resort is receiving NSW SES weather warnings and bulletins	Site control staff	
2	Familiarise yourself with the local FloodSafe Guide	Site control staff	
3	Contact any residents that may need assistance with early relocation	Site control staff	
4	Notify other staff, contractors and suppliers of flood situation	Site control staff	
5	Check availability of equipment to move items vulnerable to flooding	Site control staff	
6	Advise residents of flood situation, assembly point location and preferred evacuation routes	Site control staff	
7	Notify advance bookings of flood issue		
Flood Event			
8	Obtain details about current flood situation - NSW SES, BoM website, Local Radio, Local TV.	Site control staff	
9	Contact any residents that may need assistance with relocation	Site control staff	

STEPS	ACTION	RESPONSIBLE PERSON/S	COMPLETED YES/NO
10	Monitor evacuation advice from NSW SES, if an evacuation centre has been opened and advise occupants	Site control staff	
11	If evacuating follow Evacuation Procedure (6.2) and alert occupants to move to the Assembly Area (6.1) see map.	Site control staff	
12	Assist the removal of on-site cars that are a risk of flooding and assist occupants with securing moveable objects	Site control staff	
13	Direct occupants to notify when leaving and record all occupants that have evacuated the resort	Site control staff	
14	Ensure electricity and gas services are isolated if inundated	Site control staff	
	Post Flood		
15	Obtain details about current flood situation - NSW SES, BoM website, Local Radio, Local TV	Site control staff	
16	Check with NSW SES and NSW Police before notifying occupants and allowing people to return to flooded area. (Remember to wait for the All Clear from NSW SES before returning to resort)	Site control staff	
17	Never drive through flood water to access resort. No access is permitted in the vicinity of Wrights Creek.	Site control staff	
18	Carry out WHS risk assessment before entering flood damaged areas	Site control staff	
19	Inspection of electrical and gas fixtures before occupants are permitted to return to site	Site control staff	
20	Stay away from storm damaged areas and any power lines	Site control staff	
21	Return any vehicles or items removed off site once resort is cleared	Site control staff	
22	Visit all parts of the site and check on occupants to ensure safety and personal health.	Site control staff	

6. Key evacuation information

- The evacuation and refuge areas are within the upper floors of the multistorey building, high ground in Flynn Street west of the site and high ground in Pacific Drive, east of the site via the access pathway. Note that the western part of the site is also above any flood water.
- The evacuation route and key emergency numbers is as shown in Appendix A.

6.1 Evacuation procedures

The following general evacuation procedures apply:

- The management is responsible for ensuring the Resort is evacuated if directed to do so by an emergency service organisation or if the safety of occupants is at risk.
- The evacuation of resort occupants and staff is only required where the determination has been made that it would be safe for all persons to evacuate to a designated refuge off site.
- The decision to evacuate should only be made if directed either by the NSW Police or the emergency service organisation if the safety of occupants is at risk. Flood refuge can be provided on high ground within the site and within the upper floors of the main complex building.

The following procedures are to be followed when NSW Police/responsible emergency service agency, or the Management initiates an evacuation:

- Management is to undertake evacuation of the Resort if there is no emergency service Officer in Charge on site.
- Ensure all buildings, including amenity blocks / storerooms have been cleared and checked to ensure that all occupants have been evacuated.
- Where a building has been checked, place a pillow outside of the door (which is to be closed) to identify that the accommodation has been checked and is clear.
- Ensure that all occupants proceed directly to the Emergency Assembly Area.
- Remain at the Assembly Area and conduct a headcount to ensure that all occupants and staff are present. Use an Evacuation Assembly Register to verify occupants who are leaving the site.
- Wait for the 'all-clear' from the NSW SES Officer In Charge before returning to the Resort.

6.2 'All-Clear' and return of occupants

In the event of a flood, the SES will issue the 'all-clear' to the management and staff who will authorise the return of occupants to the Resort.

Occupants must not go back into the Resort until the Officer In Charge of the responding emergency service has issued the 'all-clear'.

Resort Managers, in conjunction with the site controllers, must ensure that the following actions are undertaken once the threat has receded and the 'all-clear' has been issued:

- Avoid contact with floodwater due to possible contamination
- Be aware that native wildlife, including snakes and spiders may have taken refuge in houses and sheds
- Be aware of damage to powerlines and electrical equipment either from fire, flood or other emergency

- Be aware of damage to other resort equipment and services such as LP Gas etc.
- Ensure occupants do not use garden hoses or tap water or any other water sources that may have been exposed to floodwater before checking with the utility provider
- Remind occupants that local roads may remain closed due to inundation and driving conditions could be dangerous
- Follow all instructions and requests from the emergency service agency to ensure the safety of the Resort
- Undertake a full Safety Checklist

7. Emergency contacts

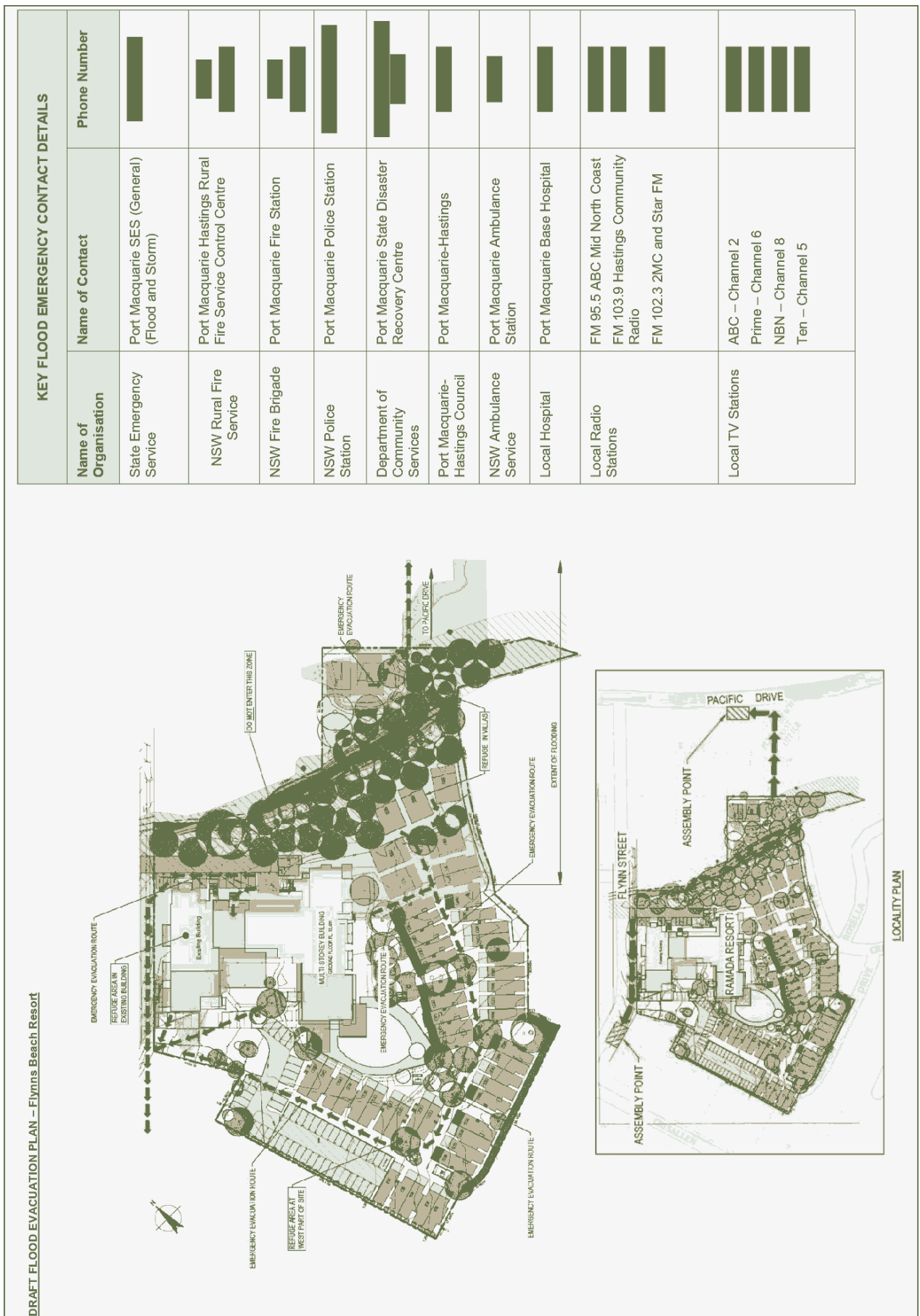
KEY FLOOD EMERGENCY CONTACT DETAILS		
Name of Organisation	Name of Contact	Phone Number
State Emergency Service	Port Macquarie SES (General) (Flood and Storm)	1800 201 000
NSW Rural Fire Service	Port Macquarie Hastings Rural Fire Service Control Centre	000 or 6586 4565
NSW Fire Brigade	Port Macquarie Fire Station	000 or 6583 3000
NSW Police Station	Port Macquarie Police Station	000 or 6583 0199
Department of Community Services	Port Macquarie State Disaster Recovery Centre	6580 3700 or 1800 018 444
Port Macquarie-Hastings Council	Port Macquarie-Hastings	6581 8111
NSW Ambulance Service	Port Macquarie Ambulance Station	131233
Local Hospital	Port Macquarie Base Hospital	5524 2000
Local Radio Stations	FM 95.5 ABC Mid North Coast FM 103.9 Hastings Community Radio FM 102.3 2MC and Star FM	6588 1211 6585 2233 6583 8088
Local TV Stations	ABC – Channel 2 Prime – Channel 6 NBN – Channel 8 Ten – Channel 5	6588 1211 6589 9777 6583 2870 6583 8088

8. Evacuation diagram

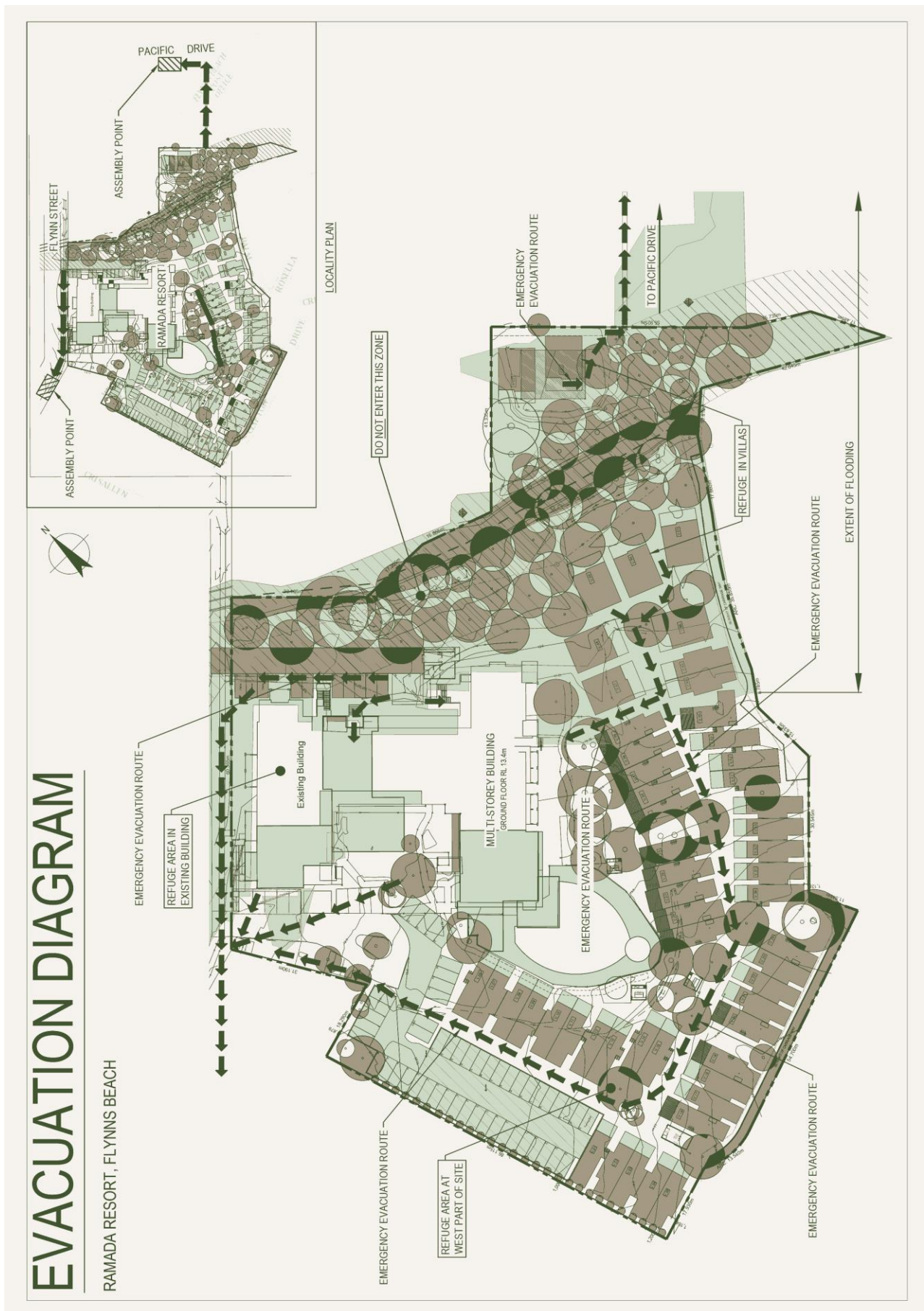
The attached emergency evacuation diagram shall be posted in prominent locations within the resort and in each unit and villa (Refer Appendix B).

Appendices

Appendix A – Evacuation Plan



Appendix B – Evacuation Diagram



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Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	D. Sparkes	L. Gellatly		L Gellatly		15/06/2018
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2	D. Sparkes	L. Gellatly		L Gellatly		05/07/2019

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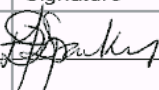
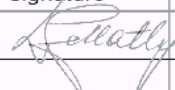
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58794/https://projects.ghd.com/OC/Newcastle/flynnbeachresort/Delivery/Documents/2219025-REP_Flood Modelling Assesment Villa 46-53_Stage 3-5.docx

Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	S. Anderson	D Sparkes		L. Gellatly		05/07/2019

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Arboriculture Impact Assessment Report

**Site Assessment Conducted and Report Prepared by:
The Tree MD Pty. Ltd. Geoffrey Ashton AQF 5 in Arboriculture**

Address: 14-20 Flynnns St Port Macquarie NSW

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1 Summary

The Tree MD Pty Ltd was commissioned by Woodvale Tree Services with a request for this Site Impact Assessment Report to be conducted to assess the associated impacts and provide appropriate recommendations in relation to a proposed development at 14-20 Flynns St Port Macquarie NSW.

Geoffrey Ashton conducted site assessment on 17th January 2019. For the proposed development to proceed it will require the removal of trees 6, 7, 8, 12, 13, 22, 23, 25, 26, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 51, 52, 58, 59, 60, 61, 65, 66, 67, 68, 69, 75, 78, 79, 80, 81, 87, 89, 90 and 91). It is noted that some numbers consist of multiple grouped trees.

A significant encroachment was identified on Trees 21, 27, 28, 29, 30, 70, 71, 72, 74, 76, 84, 88, 92 and 92. The subject trees may or may not be retained with a modified Tree Protection Zone, modified design and restrictions that allow access in and around the Tree Protection Zones (TPZ). Further detailed assessment is required to identifying the placement of piers and buildings to allow for an alternate design that avoids significant rootsystems.

The majority of trees on site and in neighbouring properties were assessed to have major encroachments and tree sensitive design techniques will be required. The design required is to be above grade where encroaching on the TPZ of trees to be retained unless it can be established there are no significant root systems to the required depth, or the pruning required will not adversely affect a tree that is scheduled to be retained. A detailed root mapping of trees to be retained should be conducted, identifying where below grade construction or the placement of piers can be made without significant impacts on the trees.

Additional plans such as the stormwater, electricity, sewerage and other services will require assessment by an AQF 5 level arborist as to their potential impacts on the trees to be retained. It is recommended their location remain outside of the prescribed Tree Protection Zones or further assessment or restrictions will be required.

2 Disclosure Statement

Trees are living organisms that provide numerous benefits to the environment; Trees within an urban environment often pose some degree of risk, this risk must be weighed up against the benefits that trees provide. Often the risks associated from trees are minimal when compared to the commonly accepted risks associated with everyday living. Some examples would be commuting in a motor car, using a stairwell or crossing a road.

There is no warranty or guarantee expressed or implied that the subject trees are defect free or do not pose any risk of harm to persons or property. Visual Tree Assessment (VTA¹) as well as additional tree assessment techniques cannot identify or eliminate all tree defects and failure potential.

Woodvale Tree Services Pty Ltd and The Tree MD Pty Ltd provides professional tree management options in line with industry standards to allow customers or relative legislative bodies to make informed choices. The report findings, conclusions, specifications or recommendations are often based on information provided whether it is measurements, site plans, official reports or verbal discussions. Woodvale Tree Services Pty Ltd or The Tree MD Pty Ltd cannot guarantee the accuracy of this information provided although it may be taken in good will and utilised to make findings, conclusions, specifications or recommendations within this report.

Findings, conclusions, specifications and recommendations are given utilising the information provided or present at the time of inspection, the condition of the subject trees may change over time or in the event of adverse weather and this is where further additional assessment is recommended. Woodvale Tree Services Pty Ltd, The Tree MD Pty Ltd or anyone employed or working on behalf of either company is not to be held liable for any damage or loss due to decisions made or not made regarding findings, conclusions, specifications or recommendations provided in this report.

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3 Introduction

The Tree MD Pty. Ltd. was commissioned by Woodvale Tree Services Pty. Ltd. with a request for a Site Impact Assessment Report on trees at 14-20 Flynns St Port Macquarie NSW. A site assessment was conducted by Geoffrey Ashton on 17th January 2019. Measurements from a previous Woodvale Tree Services report were utilized for the purpose of assessment within this report, assessment dates 04th, 06th, 07th, 12th & 13th of December 2017 & 22 January 2018. The assessment was on all trees that may potentially be affected by the proposed development including trees in the neighbouring properties.

The report has utilised the following documents for the assessment-
White + Dickenson Architects- Ramada Resort Flynns Beach Landscape Plan dated September 2018 D800 ²
White + Dickenson Architects- Ramada Resort Flynns Beach Ground Floor Master Plan dated September 2018 D200³

There was ample lighting for the purpose of assessment. The objective of this report is to provide guidance and recommendations that are in line with current arboriculture industry standards and practices. The author of this report has no affiliation or conflict of interest regarding this development.

4 Site

14-20 Flynnns St Port Macquarie NSW is zoned Medium Density Residential (R3)⁴ and is located within the Port Macquarie Council precinct and controlled by the Port Macquarie Council's Local Environment Plan (LEP⁵) and the Port Macquarie Council's Development Control Plan (DCP)⁶. There was no heritage item, koala habitat area or conservation area observed through investigation of the online heritage maps⁷.

The site is north facing to Flynnns St. The trees within the report have varying degrees of impact from hard surfaces. The property is relatively flat although slopes toward Wrights Creek within the area.

5 Methodology

The site inspection consisted of a Visual Tree Assessment (VTA¹). This technique assesses trees from ground level identifying features, symptoms and signs. VTA¹ is a useful tool but can be limiting as it does not inspect below ground or within the internal structure of a tree, it is also limited in the upper canopy where it may not identify concerns that may be seen from an aerial inspection.

Despite its limitations, VTA¹ is an industry recognised and accepted approach. Any further diagnostic or assessment methodology would only be incorporated where requested; further information has been obtained warranting the need for further investigation or a VTA¹ has identified the need for further investigation.

Measurements, evaluations and recommendation from a previous Woodvale Tree Services report dated 22.01.18 were utilised for the purpose of assessment within this report. The neighbouring trees were not thoroughly assessed via VTA due to access for the assessment being limited to the subject property.

Additional methodology utilised within this report is to assess the site and implement practices that will establish a compliance with Australian Standard Protection of trees on development sites AS 4970 2009. An overlay of the trees and their numbers onto the existing plan building footprint is provided within the Tree Protection Plan Site Diagram. This plan in conjunction with the measurements supplied within the Tree Profile Table will allow for an accurate analysis of the trees canopy and rootsystems as well as the associated impacts.

6 Observations

Trees 6, 7, 8, 12, 13, 22, 23, 25, 26, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 52, 58, 59, 60, 65, 66, 67, 68, 69, 75, 78, 79, 80, 81, 89, 90 and 91 (Red) were assessed to fall within the proposed development and will require removal unless alternative designs are proposed.

Trees 21, 27, 28, 29, 30, 70, 71, 72, 74, 76, 84, 88, 92 and 92 (Orange) were assessed to have major encroachments that require further assessment to determine the severity of the impact and if a modified design can allow for the retention of some specimens.

The majority of trees to be retained (Green) have major encroachments that require tree sensitive design. The current plans do not specify adequately how the design allows for the retention and minimises the impacts on the subject trees. Garden beds, curb side gutters and subgrade services are concerns that may also have impacts on the trees. Trees 1,2, 4, 5 and neighbouring trees to the west require additional specifications to above grade construction.

An adjustment of a proposed building location to fall outside the TPZ of the larger specimen within the grouped Tree 59 could allow for the retention of the subject tree. The adjustment of the proposed pathway around Tree 68 and the group of trees numbered Tree 69 to fall within the existing pathways footprint will allow for their retention. The proposed BBQ location will also require adjustment to above grade or outside the TPZ of trees to be retained.

The play area in the location of Tree 71 and 72 could be designed to include the trees. This should be considered to allow for their retention and may also negate the need for shade sales.

Tree 87 is in decline and should be removed irrelevant of the development outcome. Tree 61 has poor structure and should also be removed irrelevant of the development outcome. Tree 51 is an undesirable species and should be removed.

7 Discussion

It is understood the governing body needs to consider the retention value of the subject trees as well as the increased cost for the alternative construct techniques or alterations to the plan when assessing the proposed development. The associated costs are not measured or the expertise of the author of this report however the trees are assessed with retention values assigned to each tree.

Potential impacts on the trees are determined by the encroachment of the proposed development, trees that pose major encroachments are recommended for removal however a governing body may request that a retention option be placed on certain trees, this would require alterations to the proposed plan and that additional tree protection measures and possible further investigation may be implemented. Measurements are not always accurately defined as to the location of trees in relation to the development so estimated distances are utilised when an accurate measurement is not provided.

It is possible that alternative plans or above grade construction techniques with protection measures implemented throughout the development could retain additional trees on the subject site. Additional deliberations regarding the benefits of an endemic offset planting, in the long-term management of the site should also be considered.

Protection measures and possible further non-invasive below grade investigation should be applied by an AQF 5 level arborist to reduce the impacts on the trees to be retained. Below grade excavation within the measured Tree Protection Zones can allow for appropriate placement of piers to avoid significant root systems.

Extra consideration and tree sensitive measures are to be maintained around neighbouring trees. All trees within neighbouring properties are to be protected unless the owner and governing body grant permission for their removal. Pruning recommendation are provided as a best management practice however any tree work is to be limited to the boundary of the property and subject to any governing legislation. Pruning beyond the boundary will require owning body and governing body consent.

It is identified that the impacts from a development can reduce the long-term viability of a tree; it is further noted that trees can impact upon structures and it is common to see a development that is not designed to withstand the forces exerted by tree roots. This development is to be constructed in a manner that limits the impacts on all trees for retention. It is additionally recommended that the design should be constructed to withstand the forces exerted by roots or be adjustable and managed in a manner that is not detrimental to the trees for retention.

8 Recommendations

To allow for the proposed development trees 6, 7, 8, 12, 13, 22, 23, 25, 26, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 51, 52, 58, 59, 60, 61, 65, 66, 67, 68, 69, 75, 78, 79, 80, 81, 87, 89, 90 and 91 require removal. It is noted that additional trees may require removal, design adjustments and further assessment is recommended to allow for an accurate analysis of the potential impacts. Further deliberations as to an alternative design or an offset planting should be made. A number of specimens identified within the report could be retained with minor adjustments, trees 59, 68 and 69 are some examples.

The precise locations and specifications of the proposed dwellings and surrounding infrastructure within Tree Protection Zones of trees to be retained should be marked out on site to allow for an accurate analysis of the potential impacts on the subject trees.

Where significant impacts are identified and a retention option may be sought, a preliminary non-invasive assessment by an AQF 5 level arborist is to determine suitable locations for the placement of any below grade activity such as piers or services within the Tree Protection Zones of trees to be retained. Above grade design that is constructed in a manner that is not detrimental to the trees and allows for water intake and gaseous exchange is to be utilised, services should be diverted away from retained trees to reduce associated impacts.

Following the AQF 5 level arborist non-invasive (root mapping) design alteration in consultation with the AQF 5 level arborist can be made around retained trees significant root systems. To conform to Australian Standard Protection of trees on development sites AS 4970 2009⁸ a tree report should be submitted that details the findings and includes a Site Protection Plan and Site Protection Plan Site Diagram that outlines protection measures around trees to be retained.

The arborist removing the trees is to have a minimum certificate 3 in arboriculture; the arborist must have Workers Compensation insurance and Liability insurance with all work complying with the Amenity Tree Industry Code of Practice NSW and Work Health and Safety Act 2011.¹⁰

Appendix A Tree Register Table

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	Encroachment	
	<i>Glochidion ferdinandi</i>	Cheese Tree	High	Medium		Multi stem union.		Crown Lift Southern Side 50mm Final Cuts	Good	Mature	8	N-3	E-3	S-3	W-3	240	2.88	1.88	>10%	
	<i>Metaleuca quinquerervia</i>	Broad leaf paperbark	Medium	Medium	Previous branch failures. Poor branch attachments.				Good	Mature	20	N-4	E-5	S-4	W-5	430	5.16	2.76	>10%	
	<i>Grevillea robusta</i>	Silky Oak	Medium	Medium					Good	Mature	24	N-6	E-4	S-4	W-6	600	7.2	3.01	>10%	
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Low	Short					Good	Mature	12	N-4	E-5	S-6	W-4	550	4.8	2.57	>10%	
	<i>Metaleuca quinquerervia</i>	Broad leaf paperbark	Low	Short	Previous branch failures. Poor branch attachments.	Multi stem union. Strangler ficus growing within multi stem union.		Reduction prune western and north eastern ascending stems 200mm final cut, remove fig tree from lower stem.	Good	Mature	20	N-6	E-5	S-5	W-5	1000	860	10.32	3.31	>10%
	<i>Archontophoenix alexandrae</i>	Alexandra Palm	High	Medium					Good	Mature	6	N-3	E-3	S-3	W-3	N/A	4		100%	
	<i>Eucalyptus robusta</i>	Swamp Mahogany	High	Long					Good	Mature	9	N-4	E-4	S-5	W-4	350	300	3.6	2.13	100%
	<i>Metaleuca quinquerervia</i>	Broad leaf paperbark	Medium	Medium	Poor branch attachments.	Multi stem union.			Good	Mature	20	N-6	E-8	S-5	W-4	1000	720	8.64	3.31	100%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	Canopy S(M)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	High	Medium					Good	Mature	7	N-3	E-3	S-3	W-3	300	4		>10%
	<i>Syzygium australe</i>	Creek Lilly	Medium	Medium	Climber/vine strangulation.	Multi stem union. Climber/vine strangulation.	Established within an area with raised ground level and retaining wall.		Good	Mature	6	N-3	E-3	S-3	W-3	160	2	1.77	<10%
	<i>Melaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Significant inclusions within canopy unions. Over extended end weighted limbs present. Structurally poor.		Established within an area with raised ground level and retaining wall.	Recommended pruning with crown thinning and limb reduction to reduce stress on poorly structured union of extended limb under load. Subject to owners' consent.	Good	Mature	16	N-8	E-4	S-7	W-6	700	8.4	3.01	>10%
	<i>Melaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Group of trees form a collective canopy.				Good	Mature	14	N-10	E-7	S-8	W-10	630	7.56	3.01	100%
	<i>Melaleuca, Cinnamomum, Archontophoenix</i>	Broad leaf paperbark, Bangalow Palm, Camphor Laurel & Phoenix.	Medium	Medium		1 Melaleuca has structural reliance leaning and lodged within the canopy of camphor laurel.			Good	Mature	18	N-	E-	S-	W-	800	9.6	3.17	100%
	<i>Citranoxylum spirosum</i>	Fiddlewood	Medium	Medium	Over extended limbs/over weighted stems	Primary and secondary multi stem unions.		Crown thinning with specific focus on elongated N/E stem. Subject to owners' consent.	Good	Mature	14	N-6	E-5	S-7	W-7	580	6.96	3.17	>10%

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Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	Canopy S(M)	DAB mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	Melaleuca quinquenervia	Broad leaf paperbark	Medium	Medium	Inclusions present in branch unions	Multi stem union.			Good	Mature	16	N-5	E-5	S-5	W-5	800	600	7.2	3.01	>10%
	Radermachera sinica	China Doll	Low	Short	Supressed sub dominant canopy.		Competing rootzone structure.		Good	Mature	10	N-2	E-0.5	S-3	W-3	250	200	2.4	1.85	>10%
	Melaleuca quinquenervia	Broad leaf paperbark	Low	Short	Canopy formed from possible lopped regrowth. Very poor structure.	Multi stem union.			Good	Mature	18	N-3	E-6	S-6	W-8	800	700	8.4	3.01	>10%
	Ligustrum lucidum, Schefflera actinophylla, Eriobotrya japonica, Cassia sieberiana	Large leaf Privet, Umbrella, Loquat & Eastern cassia.	Low	Short				Crown lift 50mm final cut fence line.	Good	Mature	10	N-4	E-4	S-4	W-4	400	350	4.2	2.25	>10%
	Melaleuca quinquenervia	Broad leaf paperbark	Medium	Medium	Poor crown structure. Previous limb failures.				Good	Mature	16	N-4	E-4	S-4	W-4	400	350	4.2	2.25	>10%
	Eucalyptus robusta	Swamp Mahogany	High	Medium					Good	Mature	16	N-8	E-5	S-1	W-6	700	500	6	2.85	<10%
	Melaleuca quinquenervia	Broad leaf paperbark	High	Medium	Possible retention with crown lifting	Multi stem union with inclusions. Decay within stems.			Good	Mature	12	N-6	E-6	S-6	W-6	1200	1130	12	3.57	>10%
	Melaleuca quinquenervia	Broad leaf paperbark	High	Medium			Compacted rootzone area.		Good	Mature	14	N-6	E-6	S-6	W-6	860	790	9.48	3.11	100%
	Callistemon viminalis, Casuarina glauca	Bottlebrush, Swamp She oak	High	Long					Good	Mature	9	N-3	E-3	S-3	W-3	280	160	2	1.94	100%

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Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	High	Medium		Multi stem union with inclusions.			Good	Mature	14	N-5	E-5	S-5	700	700	8.4	2.85	>10%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Long	First branches 5m possible retention	Wound with active responsive and reactive growth.			Good	Mature	14	N-6	E-5	S-4	540	380	4.56	2.55	>10%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	High	Long					Good	Mature	14	N-4	E-6	S-4	650	600	7.2	2.76	<10%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	2m to ferneline 8 m first branch	Multi stem union with inclusions.			Good	Mature	18	N-4	E-6	S-8	800	660	7.92	3.01	<10%
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Low	Short	Poor crown structure. Previous limb failures.				Average	Mature	12	N-5	E-3	S-3	540	460	5.52	2.55	>10%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Inclusions within canopy unions. Previous limb failures. Excessive deadwood.				Good	Mature	13	N-7	E-5	S-5	800	550	6.6	3.01	>10%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Low	Short	Companion tree. Elongated branches. Poor crown structure. Sub dominant suppressed canopy.				Good	Mature	18	N-6	E-6	S-3	850	700	8.4	3.09	>10%
	<i>Aracastium romanzoffianum</i>	Cocos Palm.	Low	Removal	Necrotic fronds and fruit				Good	Mature	30	N-3	E-3	S-3	N/A	300	4		>10%
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Medium	Short	30 % Canopy dieback. Lost apical dominance - necrotic leader. White ants. Excessive deadwood.			Deadwood removal. An assessment for a potential habitat tree if removal is favoured.	Average	Mature	12	N-7	E-8	S-5	670	550	6.6	2.80	>10%
	Unknown	Unknown	Low	Medium	Sub dominant suppressed canopy. Poor canopy balance.				Good	Semi Mature	6	N-2	E-1	S-2	140	120	2	1.50	<10%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Low	Removal	Very poor canopy balance and structure. Over extended end weighted limbs. Companion tree.	Very poor stem structure and leaning.			Good	Mature	8	N-2	E-8	S-3	480	380	4.56	2.43	>10%
	<i>Casuarina glauca</i>	Swamp She Oak	High	Long					Good	Mature	8	N-2	E-4	S-2	200	110	2	1.68	<10%
	<i>Aracatum romanzoffianum</i>	Coos Palm.	Low	Removal	Necrotic fronds and fruit				Good	Mature	9	N-3	E-3	S-3	N/A	220	4		100%
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Low	Removal	30 % Canopy dieback. White ants. Excessive deadwood.				Average	Mature	9	N-2	E-3	S-6	460	320	3.84	2.39	100%
	<i>Glochidion ferdinandi</i>	Cheese tree	Low	Short	Poor previous pruning. Excessive epicormic growth. Asymmetrical canopy.		Excessive sucker growth.		Good	Mature	7	N-1	E-5	S-5	400	340	4.08	2.25	100%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Eucalyptus microcorys</i>	Tallowwood	Medium	Long					Good	Semi Mature	6	2	E-2	S-2	W-2	200	2.4	1.85	100%
	<i>Howea forsteriana</i>	Kentia palm	Medium	Medium					Good	Mature	6	N-3	E-3	S-3	N/A	170	4		100%
	<i>Eucalyptus microcorys</i>	Tallowwood	High	Long	Poor canopy structure. Excessive deadwood.			Crown lifting on N side 3 X Laterals 100mm final cut.	Good	Mature	10	N-6	E-6	S-2	W-5	480	4.32	2.43	<10%
	<i>Casuarina glauca</i> , <i>Syzygium australe</i> , <i>Polyscias murrayi</i> .	Swamp She Oak, Creek Lilly Pilly, Pencil Cedar.	Medium	Long		Multi stem union of <i>Syzygium</i> .		Uplift canopy of <i>Syzygium</i> - 50mm maximum final cut.	Good	Mature	6	N-3	E-3	S-2	W-3	150	2	1.50	<10%
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Low	Medium	Northern most tree has poor canopy structure with regrowth forming canopy from likely leader failure.				Good	Semi Mature	6	N-2	E-2	S-2	W-2	160	2	1.50	<10%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Eucalyptus robusta</i> , <i>Eucalyptus microcorys</i>	Swamp Mahogany, Tallwood.	Low	Medium	Branch failures in canopy. Crossing/rubbing branches.				Good	Semi Mature	8	N-3	E-3	S-3	275	180	2.16	1.92	<10%
	<i>Glochidion ferrugineum</i>	Cheese tree	Medium	Short		Multi stem union.		Crown lift on western side Final Cuts 40mm.	Good	Mature	9	N-5	E-4	S-5	270	260	3.12	1.91	<10%
	<i>Schefflera actinophylla</i>	Umbrella tree.	Low	Removal					Good	Mature	5	N-3	E-3	S-3	400	260	3.12	2.25	>10%
	<i>Eucalyptus botryoides</i>	Mahogany	High	Medium	Over extended limbs. Deadwood excessive. Previous pruning with epicormic/endocormic growth.				Good	Mature	16	N-10	E-9	S-12	1005	920	11.04	3.32	100%
	<i>Eucalyptus botryoides</i>	Mahogany	Medium	Medium	Over extended limbs. Deadwood excessive.	Multi stem union poorly structured.			Good	Mature	18	N-6	E-6	S-10	1000	540	6.48	3.31	<10%

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Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	Canopy S(M)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Eucalyptus botryoides</i>	Mahogany	Medium	Medium	No apical dominance - multiple leaders.			Selective prune eastern lateral 200mm Final cut, deadwood removal.	Good	Mature	18	N- 12	E-6	S-6	W-8	550	6.6	2.85	<10%
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Medium	Long	Sub dominant suppressed canopies.				Good	Mature	6	N-3	E-3	S-2	W-3	120	2	1.53	<10%
	<i>Eucalyptus robusta</i>	Swamp Mahogany	Medium	Medium	Sub dominant suppressed canopy.			Crown lift North Eastern 1st order branch 120mm final cut. If required.	Good	Mature	8	N-5	E-5	S-4	W-1	200	2.4	2.05	<10%
	<i>Casuarina glauca</i>	Swamp She Oak	Medium	Medium	Poor form common in environment.	Sabre stem structures. Atypical stem tapers. Heavily weighted stems.		Crown Lift eastern branches x2 100mm final cut. Crown lift Northern eastern growing branch 150mm Final cut	Good	Mature	14	N- 10	E-8	S-5	W-6	450	5.4	2.76	<10%
	<i>Syzygium australe</i>	Creek Lilly Lilly	High	Long					Good	Mature	9	N-5	E-5	S-5	W-5	420	5.04	2.37	100%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	Canopy S(M)	TPZ(M)	SRZ(M)	croachment
	<i>Casuarina glauca</i>	Swamp She Oak	Medium	Medium			Possible repositioning of building to retain larger specimen		Good	Mature	10	N-4	E-4	S-4	W-4	3.6	2.25	100%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	High	Long		Multi stem union with inclusions.			Good	Mature	14	N-7	E-7	S-7	W-7	7.68	2.93	100%
	<i>Populus deltoides</i>	Cottonwood	Low	Removal	Various limb failures within canopy.	Multi stem. Site of previous wound with decay likely. Stems extended with weighted canopy.			Good	Mature	16	N-11	E-13	S-9	W-9	9	3.44	0%
	<i>Glochidion ferdinandi</i>	Cheese tree	Medium	Medium	Over extended end weighted limbs.	Multi stem union. Strangler fig establishing at base impacting stem currently.		Crown lift Western branch 120mm Final Cut	Good	Mature	10	N-5	E-6	S-8	W-6	6.48	2.93	0%
	<i>Pinus radiata</i>	Radiata pine.	Low	Short	Co dominant stem within canopy.	Bottlebutt/Butress flare.			Good	Mature	22	N-6	E-10	S-10	W-10	6.96	3.33	0%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Pittosporum undulatum</i>	Sweet Undulatum.	Medium	Short	Assymetrical canopy with average balance. Foliage predation from Pittosporum beetle.		Possible limited potential root system due to being established on Pinus rootplate	Consider biological control of Pittosporum beetle. Possible minor pruning site - project arborist discretion.	Average	Mature	5	N-3	E-1	S-2	W-4	400	300	3.6	2.25	0%
	<i>Dyopsis decaryi</i> , <i>Cyatheia cooperi</i> , <i>Plumeria</i> spp	Triangle Palms, Tree Fern, Frangipanii	Medium	Medium					Good	Mature	6	N-4	E-3	S-4	W-3	N/A	420	4		100%
	<i>Cycas revoluta</i> , <i>Howea forsteriana</i> , <i>Archontlophoenix alexandrae</i>	Cycad, Kentia palm, Alexander palm	Medium	Short		Alexander palm has poor stem structure with missing previous leader.			Good	Mature	12	N-3	E-3	S-3	W-3	N/A	240	4		100%
	<i>Cycas revoluta</i> , <i>Cyatheia cooperi</i> , <i>Archontlophoenix alexandrae</i> .	Cycad, Tree Ferns, Alexander palm	Medium	Medium					Good	Mature	14	N-4	E-4	S-4	W-4	N/A	350	5		100%
	<i>Melaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium			To retain tree, use existing path footprint around tree		Good	Mature	14	N-4	E-6	S-6	W-6	660	580	6.96	2.78	100%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	Archontophoenix alexandrae, Melaleuca quinquenervia, Corymbia extima, Washingtonia robusta	Alexander Palms, Broad leaf paperbarks, Yellow Bloodwood, Fan Palms.	Medium	Medium	Melaleuca closest to the pool has poor canopy structure. White ant activity previously.		A redesign of the path to follow the existing pathway footprint BBQ area and path above grade. The last tree should be further assessed possible reduction prune over pool area		Good	Mature	16	N-6	E-6	S-6	W-6	900	710	8.52	3.17 to 100%
	Melaleuca quinquenervia	Broad leaf paperbark	Medium	Medium	Deadwood. Average structured scaffold limbs/leaders.	Average structured stem. Previous white ant activity.	Could be retained if tree considerate construction of play area is achieved	Deadwood removal.	Good	Mature	16	N-5	E-9	S-10	W-9	1100	660	7.92	3.44 to >10%
	Glochidion ferdinandi, Melaleuca quinquenervia, Phoenix canariensis, Corymbia extima	Cheese tree, Broad leaf Paperbark, Date Palm, Yellow Bloodwood.	Medium	Medium	Deadwood.			Deadwood and necrotic frond removal.	Good	Mature	12	N-6	E-6	S-6	W-6	675	530	6.36	2.81 to >10%
	Melaleuca quinquenervia	Broad leaf paperbark	Medium	Medium			Surface root damage and possible impact to rootzone during install of playground.	Monitor health and rootzone area.	Average	Mature	12	N-4	E-4	S-6	W-4	550	360	4.32	2.57 to >10%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment	
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium		Cheese tree established at base of stem.		Remove Cheese tree.	Good	Mature	18	N-6	E-6	S-5	W-8	700	530	6.36	2.85	>10%
	<i>Metaleuca quinquenervia</i> , <i>Aracastrium romanzoffianum</i>	Broad leaf paperbark, Cocos Palm	Medium	Short	Deadwood.	One metaleuca has multistems with inclusions.	Possible crown lifting work within structural rootzone remove Cocos Palms	Crown lift Eastern branch 50mm Final cut.	Average	Mature	16	N-6	E-4	S-4	W-6	960	680	8.16	3.25	>10%
	<i>Phoenix canariensis</i>	Date Palm	Medium	Medium	Neotric fronds within the canopy.				Good	Mature	10	N-3	E-3	S-3	W-3	N/A	540	4		100%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Deadwood. Crossing/rubbing limbs. Selective prune northern rubbing branch final cut 300mm at branch junction, Reduction prune Northern lateral stem 50 mm Final cut. Removal of self set trees at the base of stem.	Multi-stem union with inclusion.	Various sub-dominant species of tree self-set and established at the base will become suppressed.	Selective prune northern rubbing branch final cut 300mm at branch junction, Reduction prune Northern lateral stem 50 mm Final cut. Removal of self-set trees at the base of stem.	Good	Mature	12	N-9	E-7	S-6	W-7	1200	720	8.64	3.57	>10%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Phoenix canariensis</i>	Date Palm	Medium	Medium	Necrosis within fronds.	Stem occluding close to base.			Good	Mature	8	N-4	E-4	S-4	N/A	450	5		>10%
	<i>Melaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium		Multistem union with inclusion.			Average	Mature	14	N-6	E-6	S-6	900	580	6.96	3.17	100%
	<i>Callistemon viminalis</i>	Bottlebrush	Medium	Medium		One tree has large occluding wounds on the stem from previous damage or failure.			Good	Mature	8	N-4	E-4	S-4	280	210	2.52	1.94	100%
	<i>Callistemon viminalis</i> , <i>Callistemon salignus</i> , <i>Syagrus romanzoffiana</i>	Bottlebrush, Willow bottlebrush, Cocon Palm.	Low	Medium					Average	Mature	9	N-3	E-3	S-3	250	200	2.4	1.85	100%
	Unknown species, <i>Cupressocypariss</i> spp.	Unknown, Cypress spp.	Medium	Medium	Unknown species previously lopped. Cypress has a multi stem union within the upper canopy.				Good	Mature	8	N-4	E-4	S-4	570	560	6.72	2.61	100%

Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB (mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment
	<i>Metaleuca quinquevirens</i>	Broad leaf paperbark	Medium	Medium	Deadwood. Previous limb failure < 100mm. Longicorn borer activity.	Longicorn borer activity. Multistem union with inclusion.			Good	Mature	16	N-6	E-5	S-6	W-7	910	10.92	3.34	>10%
	<i>Washingtonia robusta</i>	Fan Palm	Medium	Medium					Good	Mature	8	N-3	E-3	S-3	W-3	400	4		>10%
	<i>Eucalyptus microcorys</i>	Tallowood	Medium	Medium					Good	Mature	10	N-4	E-4	S-4	W-4	225	2.76	2.13	>10%
	<i>Washingtonia robusta</i>	Fan Palm	Medium	Medium					Good	Mature	6	N-3	E-3	S-3	W-3	450	4		<10%
	<i>Cyathea cooperi</i> , <i>Archontophoenix alexandrae</i> , <i>Dypsis lutescens</i>	Tree Ferns, Alexander Palms, Golden cane palms.	Medium	Medium					Good	Mature	12	N-3	E-3	S-3	W-3	N/A	350	4	0

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Tree no.	Species	Common Name	Significance (STARS)	Useful Life Expectancy	Canopy	Stem	Rootzone	Recommended Pruning / Arboricultural works	Health	Age Class	Height (m)	Canopy N(M)	Canopy E(M)	Canopy S(M)	DAB mm)	DBH (mm)	TPZ(M)	SRZ(M)	croachment	
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Deadwood. End weighted canopy scaffold limbs/leaders.	Multistem union with inclusion. Self optimised with average stem structures.		Hazard reduction prune by deadwood removal and end weight reduction.	Good	Mature	10	N-9	E-5	S-7	W-9	900	740	8.88	3.17	>10%
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Deadwood.	Multistem union with inclusion.	Only encroached upon if roadway is resealed		Good	Mature	10	N-6	E-4	S-6	W-5	850	570	6.84	3.09	
	<i>Metaleuca quinquenervia</i>	Broad leaf paperbark	Medium	Medium	Deadwood within all trees. End weighted canopy scaffold limbs/leaders. With average structure of southern tree. Northern most tree has suppressed canopy with poor balance - asymmetrical.	Multi-stemmed unions with inclusions. Stem contacting boundary fence.	Only encroached upon if roadway is resealed	Hazard reduction prune by deadwood removal and end weight reduction.	Good	Mature	16	N-7	E-9	S-9	W-9	1500	1010	12.12	3.92	0
	<i>Archontophoenix alexandrinae</i> , <i>Dypsis lutescens</i> .	Alexander Palms, Golden cane palms.	Medium	Medium					Good	Mature	8	N-3	E-3	S-3	W-3	N/A	300	4	0	
	<i>Aracastum romanoffianum</i> , Unknown spp.	Cocos palm, Unknown species.	Medium	Medium					Good	Mature	18	N-4	E-4	S-4	W-4	N/A	450	5	0	

Παρασκευή 26.04.2013

Visual Tree Assessment (VTA)	A systematic method of tree assessment (developed by Claus Mattheck & Helge Breloer) using biological and biomechanical indicators to evaluate overall vitality and structural integrity of a tree.
AQF Level 5 Arborist	An Arborist with a AQF level 5 qualification such as a Diploma in Arboriculture ⁹ This with relevant experience enables the person to perform the tasks required by the standard AS 4373 2007 and legislative bodies
Arborist ¹⁰	An Arborist with a AQF level 3 qualification or above of equivalent recognised and relevant experience that enables the person to perform the tasks required by the standard AS 4373 2007 and legislative bodies
Tree	A woody, perennial and long lived plant that has a self-supporting trunk (or trunks) with lateral branching initiating at some distance from the ground and supporting a definitely formed canopy.
Tree Worker	A worker who through related training (minimum AQF level 2 in Arboriculture) or equivalent recognised and relevant on the job experience has demonstrated competence in pruning in accordance to the standard AS 4373 2007
Selective pruning	The removal of target branches
Crown thinning	The selective removal of branches that does not alter the overall size of the tree.
Dead wooding	The removal of dead branches
Mass damping	A design that allows the distribution of force to be shared between branches.
Tree Protection Zone (TPZ) Or Modified Tree Protection Zone	A specified area at a given distance from the trunk set aside for the protection of a trees root system and canopy during land development works to ensure the long term viability and stability of a tree, calculated in accordance with AS 4970:2009.
Canopy	The crown of a tree, comprising all of the foliage and branches
Pruning	The selective removal of branches, severed at the branch collar near the junction with another branch in accordance with Natural Target Pruning techniques as specified in AS4373:2007.
Structural Root Zone (SRZ)	The Structural Root Zone provides the bulk of mechanical support and anchorage for the tree.



IACA Significance of a Tree, Assessment Rating System (STARS)©

(IACA 2010)©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the Tree Significance - Assessment Criteria and Tree Retention Value - Priority Matrix, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of High, Medium and Low significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined. An example of its use in an Arboricultural report is shown as Appendix A.

Tree Significance - Assessment Criteria

1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ
- tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ
- tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound. Environmental Pest / Noxious Weed Species
- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.


4. Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous.
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g.

Table 1.0 Tree Retention Value - Priority Matrix

		Significance				
		1. High	2. Medium	3. Low		
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
Estimated Life Expectancy	1. Long >40 years					
	2. Medium 15-40 Years					
	3. Short <1-15 Years					
	Dead					
Legend for Matrix Assessment						
		Priority for Retention (High) - These trees are considered important for retention and should be retained and protected. Design modification or re-location of buildings should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 <i>Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.				
		Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.				
		Consider for Removal (Low) - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.				
		Priority for Removal - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.				

USE OF THIS DOCUMENT AND REFERENCING

The IACA Significance of a Tree, Assessment Rating System (STARS) is free to use, but only in its entirety and must be cited as follows:

IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, www.iaca.org.au

13 Appendix E Proposed Landscape Plan and Tree location



13 Appendix E
Landscape Plan

©The Tree MD Pty. Ltd.
Geoffrey Ashton 14-20 Flynn St Port Macquarie NSW
Created: 29th January 2019

Bibliography/References

- ¹ Matheck, C. Updated Field Guide For Visual Tree Assessment. Karlsruhe: Forschungszentrum Karlsruhe, 2007.
- ² White + Dickenson Architects- Ramada Resort Flynns Beach Landscape Plan dated September 2018 D800
- ³ White + Dickenson Architects- Ramada Resort Flynns Beach Ground Floor Master Plan dated September 2018 D200
- ⁴ NSW Legislation. 2016. *NSW Legislation*. [ONLINE] Available at: <https://www.legislation.nsw.gov.au/#/view/EPI/2011/84/maps#LZN>. [Accessed 31st January 2019].
- ⁵ Port Macquarie Local Environmental Plan – Port Macquarie. 2011. *Port Macquarie Local Environmental Plan – port Macquarie Shire Council*. [ONLINE] Available at <http://www.legislation.nsw.gov.au/#/view/EPI/2011/84/id110> [Accessed 31st January 2019].
- ⁶ Port Macquarie Development Control Plan – Port Macquarie Council. 2013. *Port Macquarie Development Control Plan – Port Macquarie Shire Council*. [ONLINE] Available at: <http://www.pmhc.nsw.gov.au/Building-Planning/Planning-Development-Controls/Development-Control-Plans-DCPs> [Accessed 31st January 2019].
- ⁷ NSW Legislation. 2016. *NSW Legislation*. [ONLINE] Available at: https://www.legislation.nsw.gov.au/maps/cad7fbce-71e4-408d-a86c-4d5b99b26ed2/6380_COM_HER_013G_020_20181106.pdf. [Accessed 31st January 2019].
- ⁸ Australian Standard Protection of trees on development sites AS 4970 2009
- ⁹ Australian Standard Pruning of Amenity Trees AS 4373 2007
- ¹⁰ . 2017. *Home - WorkCover portal*. [ONLINE] Available at [Accessed 31st January 2019].
- ¹¹ IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, [WW.iaca.org.au](http://www.iaca.org.au)

All communications to be addressed to:

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4 Murray Rose Ave
Sydney Olympic Park NSW 2127

Headquarters
Locked Bag 17
Granville NSW 2142

Telephone: 1300 NSW RFS
e-mail: records@rfs.nsw.gov.au

Facsimile: 8741 5433



The General Manager
Port Macquarie-Hastings Council
PO Box 84
PORT MACQUARIE NSW 2444

Your Ref: 2017/885
Our Ref: D19/760
DA19030817714 PC

ATTENTION: Benjamin Roberts

26 March 2019

Dear Mr Roberts

Integrated Development Application - 331//828346 & 24//22883 - 14-20 Flynn Street Port Macquarie

I refer to your correspondence dated 1 March 2019 seeking general terms of approval for the above Integrated Development Application in accordance with Section 4.55 of the 'Environmental Planning and Assessment Act 1979'.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted. General Terms of Approval, under Division 4.8 of the 'Environmental Planning and Assessment Act 1979', and a Bush Fire Safety Authority, under Section 100B of the 'Rural Fires Act 1997', are now issued subject to the following conditions:

Asset Protection Zones

The intent of measures is to provide sufficient space for fire fighters and other emergency services personnel, ensuring radiant heat levels permit operations under critical conditions of radiant heat, smoke and embers, while supporting or evacuating occupants. To achieve this, the following conditions shall apply:

1. At the commencement of building works and in perpetuity, the entire property (other than the riparian corridor) shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.
2. Replanting within the riparian corridor shall maintain a 10 metre wide area around any existing and/or proposed buildings which shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Water and Utilities

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

3. Water, electricity and gas are to comply with section 4.2.7 of 'Planning for Bush Fire Protection 2006'.

Access

The intent of measures for internal roads is to provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area. To achieve this, the following conditions shall apply:

4. Internal roads shall comply with section 4.2.7 of 'Planning for Bush Fire Protection 2006'.

Evacuation and Emergency Management

The intent of measures is to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments. To achieve this, the following conditions shall apply:

5. Arrangements for emergency and evacuation are to comply with section 4.2.7 of 'Planning for Bush Fire Protection 2006', including the preparation of an emergency / evacuation plan consistent with the NSW RFS document titled 'A guide to developing a bush fire emergency management and evacuation plan'. A copy of the plan shall be provided to the consent authority prior to occupation of the development.

Design and Construction

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions shall apply:

6. New construction within 100 metres of the mapped bush fire prone land on the northern side of Flynn Street shall comply with Sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2009 'Construction of buildings in bush fire-prone areas' or NASH Standard (1.7.14 updated) 'National Standard Steel Framed Construction in Bushfire Areas – 2014' as appropriate and section A3.7 Addendum Appendix 3 of 'Planning for Bush Fire Protection 2006'.
7. Shade sail materials in the inner protection area shall be non-combustible or have a Flammability Index of no greater than 5 when tested in accordance with Australian Standard AS1530.2-1993 'Methods for Fire Tests on Building Materials, Components and Structures - Test for Flammability of Materials'.

Landscaping

8. Landscaping to the site is to comply with the principles of Appendix 5 of 'Planning for Bush Fire Protection 2006'.

General Advice – consent authority to note

This bush fire safety authority relates to the layout depicted in the diagram titled 'Site Plan' prepared by White & Dickson Architects (Ref: Project 1625, Rev. DA6), dated 25 February 2019.

Reviewed determination

This letter is in response to additional information submitted and supersedes our previous approval dated 28 November 2017.

Should you wish to discuss this matter please contact Paul Creenaune on 1300 NSW RFS.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'Alan Bawden', with a stylized, flowing script.

Alan Bawden

Team Leader - Development Assessment & Planning

For general information on bush fire protection please visit www.rfs.nsw.gov.au

Monday, 27 May 2019

Builtsmart Group Pty Ltd
Att: Mr Peter Kuhn
Locked Bag 4
Central Coast Mail Centre
NSW 2250

Delivery via email: peter.kuhn@builtsmartmodular.com.au



ABN: 86139603268
6 John St
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Phone: 6593 6178
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Dear Peter,

**Re: S4.55 Variation Update for Re-development
of 14-20 Flynn St, Port Macquarie – relocation of Koala food tree planting**

As requested, we have reviewed the updated plan noting that a proposed Koala food tree location has been impacted by the need to relocate a building footprint due to other constraints.

This location is recommended to be where two Slash Pines (*Pinus radiata*) and a Cottonwood (*Populus deltoides*) are located in the upper end of the riparian zone on site. The Vegetation Management Plan (VMP) recommended these trees be removed to allow further Koala Food Trees (KFTs), hence this provides an adequate location and reinforces the corridor value of the riparian zone.

As these trees both dominate the local canopy here and comprise the northern extremity, there is position for 2 KFTs, resulting in net gain in Koala habitat on-site.

The outcome of the updated plan also remains valid with the conclusions of the updated Seven Part Tests previously submitted.

Yours faithfully,

Jason Berrigan.

Director, JBEnviro
B. Nat. Res. (Hons). Grad. Cert. (Fish.).
MECANSW, MRZNSW, MABS, MAHS, MAPCN



HOPKINS CONSULTANTS

PTY LTD

**WINNER
2009**

26 February 2019

Your Ref: DA 2017.885.2
Our Ref: 7172

General Manager
Port Macquarie-Hastings Council
PO Box 84
PORT MACQUARIE NSW 2444

Attention: Ben Roberts

Directors

MICHAEL S MOWLE
B E Civ (Hons)
Chartered Engineer

GEOFFREY E HILL
B Surv
Registered Land Surveyor

DANIEL J BAKER
B Surv
Registered Land Surveyor

DARREN J BOOTH
B Surv
Registered Land Surveyor

Re: S.4.55(2) modification to DA 2017.885.2
14-20 Flynn Street, Port Macquarie

Dear Ben

Please find enclosed our application under Section 4.55(2) for a modification to DA2017.885.2 which was granted consent by Council at its Development Assessment Panel (DAP) meeting on 27th June 2018, and subsequently modified on the 6th November of last year.

This intended modification is for the reconfiguration of the approved villa/cabin layout and can be summarised as follows:

- The reduction in approved villa numbers from 59 to 53, noting that 62 were proposed in the original DA;
- The reduced development yield includes the removal of the previously approved elevated units over the western carpark area, as well as reducing the average height of all villa units by approx. 100mm across the site. The reduced building mass serves to thus reduce any perceived visual impact of the approved development.
- deletion of 2 x 1b/r units which had been approved as a conversion of the current "Sales Area" in the existing Ramada Resorts building;
- reduction in total on-site parking numbers from 140 to 134;



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Liability limited by a scheme approved under Professional Standards Legislation
draft Letter to Council - S.4.55 for new layout

DEVELOPMENT MANAGERS • SURVEYORS • ENGINEERS • PLANNERS

- re-introduction of villas 52 and 53 located east of the Wrights Creek riparian zone (previously proposed as villas 60-62), with corresponding flood-free egress provided via 55 Pacific Drive;
- reconfiguration of the internal floor area of the existing Stage 1 building to incorporate the following:
 - convert existing sales area to new reception and administration;
 - convert existing reception to administration/sales area, including increased floor area for offices, disabled access and kids' room;
 - convert existing recreation/games room to food and beverage precinct with covered alfresco area and modification to the existing gymnasium.

This "built form" component of the approved project is also to be staged in accordance with an updated staging plan. This staging is to be read in conjunction with the original civil works staging plan which formed the basis of the recent S.4.55 application, DA 2017.885.2.

That previous staging plan approved on 6th November had the effect of staging the western carpark (Stage 1), civil works and services (Stage 2), and the villas/building works in the balance (Stage 3). The proposed staging plan accompanying this S.4.55 application serves to stage those Stage 3 villas/building works, with the proposed stages nominated as Stage 3-1, Stage 3-2, Stage 3-3, etc... accordingly.

We submit that the proposed modification is minor and represents substantially the same development as that which was granted consent by Council previously. The modified proposal reduces the villa yield while substantially retaining the original development footprint and thereby satisfies the matters for consideration under S.4.15 of the Act in the same manner as the approved development.

In support of this statement, a Queen's Counsel advice has been sought and will be forwarded to Council under separate cover shortly. The modified layout has also been re-examined by those specialist environmental consultants who investigated and formed recommendations on the original development proposal.

The results of those updated investigations are summarised below:

- Wrights Creek Villas

This S.4.55 includes the re-inclusion of two villas (previously 3) located east of Wrights Creek which formed part of the original documentation lodged and exhibited with the DA, but were excluded from the consent when issued on the 27th June last year.

In that regard, the proposed modification requests the removal of Condition A(14) of the consent, which currently reads:

"A(14) Villas 60, 61 and 62, on the eastern side of Wrights Creek, do not form part of this consent."

Villas 60-62 formed part of the original tourist accommodation proposal, and as such were fully supported by all accompanying environmental reports annexed to the original DA submission. The supplementary traffic impact report, bushfire, flooding and ecological assessments all recommended support for the proposal with these 3 villas included.

During Council's assessment however, a concern was raised in relation to emergency egress from these villas during Wrights Creek flood events. This was despite a pre-existing right of footway across the adjoining property at 55 Pacific Drive which permitted legal egress from the site of these villas.

Prior to acceding to this point of egress for the proposed villas, Council requested the applicant include a raised boardwalk within this right of access to provide for a higher FFL through this partially flood-affected land. A raised boardwalk design was submitted to Council to allow for flood-free egress from villas 60-62 accordingly.

Council noted these additional construction works were predominantly located on the subject site, but would also be partially located on the adjoining site occupied by SP 61661 known as the "Beaches" apartment building at 55 Pacific Drive. As such, Council sought a formal agreement from the strata body of SP 61611 to authorise the proposed works.

That written approval from the neighbouring strata development has since been obtained and is dated 20th June 2018 (annexed to this application). However, as this couldn't be obtained prior to the report to DAP in early June, Condition A(14) was included in the draft consent presented to the DAP.

Immediately prior to the original DA being reported to DAP, an email discussion was held between the applicant and Council in relation to the objectives of a subsequent Section 4.55 for villas 60-62. An extract of that last correspondence from the applicant to Council on 1st June is highlighted below:

"As discussed, we will proceed with Council's recommendation to highlight that Villas 60-62 (3 villas on Eastern side of wrights creek) are removed from this Development application and are subject to separate approval. Therefore, please find attached updated site plan to assist with finalising councils letter for DAP scheduled 13/06/2018."

It is understood that this would remove any uncertainty from the proposed development application when being reviewed at the DAP.

It was confirmed by council that a section 96 would be better solution to gain approval for villas 60-62 (now removed) on the eastern side of the creek, due to all previous concerns are formalised, excluding the one final approval from adjoining neighbours to construct a boardwalk within the rights of access associated with flood emergency evacuation for the 3 villas (60-62)."

With the obtaining of written authorisation from the neighbouring land-owner to create the flood-free access, this current S.4.55 application seeks to re-introduce these villas to the east of Wrights Creek, albeit the number of villas has been reduced from three to two.

In support of our application, we would stress the following points which relate to the original justification for these Wrights Creek villas in the development proposal:

- The stormwater and servicing infrastructure approved under the consent had been designed specifically with villas 60-62 included in the drainage and servicing model;
- The parking assessment lodged with the original DA included provision for the traffic generated by proposed villas 60-62. Overall villa numbers for the entire development are now also reduced under this present S.4.55 application;
- The ecological and environmental assessments of the original DA proposal had accounted for and addressed the inclusion of villas 60-62 in the site's development. Council's approval of those reports validated those assessments;
- The flood evacuation strategy for villas 60-62, which had been approved in principle prior to the DAP meeting, was reliant on obtaining written approval from the neighbouring SP 61661, which has since been obtained;
- The original Development proposal which was notified to neighbouring land-owners included villas 60-62 in the intended development scheme.

Accordingly, our S.4.55 proposal includes Villas 52 and 53 located east of Wrights Creek.

The intended re-introduction of these two villas has been shown by all supplementary reports to have minimal environmental impact. This principle is examined in more detail in the following comments which summarise the conclusions of each supplementary report.

- Ecology – assessed by JB Enviro and dated 19th February 2019

Comment – This assessment has had regard to the original ecological investigations which were undertaken for the approval of the existing Stage 1 building in 2003, as well as the more recent investigations which accompanied DA 2017.885.1.

These previous ecological assessments recognised the development proposal results in the loss of trees which were originally retained within a parkland setting within a caravan park. This current modification will result in modification of the current vegetation in the central, south and west of the site, but the most important habitat within the Wrights Creek riparian zone will be rehabilitated and widened under a Vegetation Management Plan (VMP) to improve its condition as an EEC and retain its habitat values for a range of native fauna species.

The addendum report prepared is attached and concludes that while there are some additional tree removals proposed by this S.4.55 application, the proposal is unlikely to have a significant impact on any threatened species, hence a Species Impact Statement is not required.

The report summarises the impacts to the site as follows:

“The Wrights Creek riparian zone is the key local corridor, especially for the Koala. This linkage value will be retained and augmented by the rehabilitation, and hence the current linkage values retained. Consequently no area of habitat will be fragmented or isolated from other habitat as a result of the proposal.

The portion of the site to be modified for the development contains KFTs and forms part of Core Koala Habitat, and hence is important to the local population in the locality. This value is retained as virtually all mature or near KFTs are retained, and more are to be planted to offset loss of the 11 trees to be removed (including 2 which have short life expectancy).

The area has no specific significance to the other potentially occurring species as no breeding habitat occurs here, and all require relatively vast areas of habitat well beyond the study area to meet their needs.”

- Koala Plan of Management – assessed by Biolink – 18th February 2019

Comment – This addendum report reviewed the intended removal of Preferred Koala Food Trees (PKFTs) and related offset strategy for the modified development. The revised Masterplan results in a total loss of 11 Preferred Koala Food Trees. All 11 PKFTs are *E. microcorys* or *E. robusta*, which range from smaller semi-mature trees to larger mature trees.

As per the original consent, an agreed offset ratio of 3:1 is proposed to be implemented for the loss of PKFTs (offset = 33 PKFTs).

The report recognises that this revision to the Masterplan has been done so as to minimise impacts on PKFTs wherever possible, and the intended offset plan focuses on enhancing koala habitat and connectivity within the protected Wrights Creek corridor. In that regard, Biolink's addendum report concludes:

"Based on our review of the amended masterplan and the Woodvale (2019) report, relevant changes to the KPoM (Biolink 2018) for 14-20 Flynn Street, Port Macquarie have been provided in this document."

The report by Biolink includes a list of performance triggers and corrective actions to be read in conjunction with the approved KPOM accordingly.

- Riparian Zone VMP – assessed by JB Enviro – February 19

Comment – The updated Vegetation Management Plan addressing the revised masterplan has the following objectives:

- *"Establish the 33 Preferred Koala Food Tree (KFT) plantings required by the Koala Plan of Management (KPoM) prepared by Biolink (2017, 2019).*
- *Rehabilitate the riparian zone of Wrights Creek which is an identified Endangered Ecological Community (EEC), and establish a Vegetated Riparian Zone (VRZ) to in principle address the recommendations of Anne Clements and Assoc. (2017) and the obligations under the Water Management Act 2000, subject to bushfire constraints and existing Development Consent.*
- *Eliminate all weeds listed as Biosecurity Risks."*

In that regard, the VMP identifies a number of site management measures which are important in establishing the pre-construction work conditions, construction management, weed control, and ongoing monitoring and maintenance of the riparian zone and KFT plantings. The VMP includes an Action Plan which outlines the key actions during the 5-year establishment and subsequent operational phase including ongoing monitoring.

The VMP concludes that subject to meeting identified KPIs, the amended masterplan for the development will have no adverse impact on the Wrights Creek riparian zone. Rather, the proposed actions will serve to expand the area of, and rehabilitate a largely neglected habitat corridor and EEC.

- Arboricultural impact – assessed Woodvale Tree Services – 29th Jan 2019

Comment – This report acknowledges the repositioning, and reduction in the number of villas within the development site. The report examines all trees across the development site that could be impacted by the modified masterplan footprint and recognises that 41 trees require removal. It has been noted (JB Enviro & Biolink) that 11 of these are Preferred Koala Food trees. However, a larger proportion of trees across the site can be retained.

The Arboricultural report examined those trees proposed to be retained and includes a number of recommended actions/measures to ensure their retention, and to potentially enable the retention of marginal trees located close to building footprints. Refer to Appendix A of the arboriculture report which outlines the recommended arboricultural management works for all trees identified within the development site.

In this regard, the addendum report expands on previous communication with Council during the original DA's assessment. That report and subsequent correspondence had explained that the lightweight construction of this development allowed for flexibility in pier locations, and the adoption of alternative construction techniques to span root zones.

Council and the proponent had previously acknowledged that tree retention is the ultimate goal for this development. Although there are percentage encroachments of root zones predicted, building the villas on piers as proposed has the effect of significantly reducing any impact to the ground.

- Bushfire Hazard – assessed by Bushfire Hazard Solutions – 24th Jan 2019

Comment – The original DA's assessment determined that vegetation located to the north of the site was identified as potential hazard, but that the risk affecting this property was minor and would not compromise or otherwise significantly impact on the proposed tourist accommodation project. In that regard, the remnant vegetation to the north, and the anticipated re-planting within the on-site riparian zone were deemed to constitute low threat hazard, and the proposal was endorsed by the RFS accordingly.

With the updated site layout, a further assessment of the modified proposal was undertaken by Bushfire Hazard Solutions, and is dated 24th January 2019 (attached).

The latest assessment has had to take into account a change in the bushfire mapping which has occurred since the time the original consent had been issued by Council. Parts of the site itself are now mapped as being bushfire hazard under the adopted online mapping (refer figure below).



The new mapping is refuted in the updated report by Bushfire Hazard Solutions, with the report pointing out that much of the newly mapped areas constitute existing buildings, carparking and playground areas. These examples are documented in the attached report and have been discussed with RFS' assessing officer.

Notwithstanding, the assessment of this modification proposal needs to have regard to the legislative provisions which existed at the time of the original granting of consent. In that regard, the updated bushfire assessment determines that the amended development layout is at no greater risk of bushfire than the approved layout.

The report concludes:

"In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development and also satisfy both the Rural Fire Service's concerns and those of Council in this area.

We are therefore in support of the section 4.55 application. Should you have any enquiries regarding this project please contact me at our office."

- Flood Hazard – assessed by GHD – February 2019

Comment – It is acknowledged that flooding issues were examined in great detail with the original proposal, resulting in the reduction in proposed villa numbers, and two referrals of the application to Council's DAP. However, the accompanying flood modelling successfully resolved all of Council's initial

concerns in relation to flooding impacts and development consent was granted accordingly.

GHD's latest flood modelling assessment examined the potential impacts by floodwaters, and impacts on flooding behaviour as a consequence of the amended villa layout, including the re-introduction of villas 52 and 53 to the east of Wrights Creek. The footprint of the development has not significantly changed, including the retention of the Wrights Creek riparian corridor.

The amended proposal now before Council has been supported by the updated flood modelling assessment which demonstrates that the reduction in villa numbers, and inclusion of Villas 52 and 53, is appropriate and will not impact negatively on localised flood waters.

The report concludes:

"Due to the nature of flooding at this location (short duration to peak at approximately 60 to 90 minutes followed by short duration for water receding at approximately 90 minutes) it has been demonstrated that with a flood management plan in place and managed by the on-site staff there is sufficient time for the residents to evacuate the site. The evacuation paths for the villas are via low hazard flood fringe areas to high ground and services. The evacuation routes are by graded paths.

The proposed villa floor levels are set at 1.1 m above the 100 year ARI event. This includes the minimum requirement of 500 mm freeboard plus 400 mm climate change effects.

The proposed works are considered unlikely to represent a significant change to site flood conditions including the adjacent properties. This includes consideration of climate change."

All buildings' FFLs are positioned greater than 1.1m above the 1 in 100 year flood level and all enjoy flood-free egress. Those sections of the buildings below flood level (footings/piers) are to be certified by a structural engineer that the structures can withstand floodwater impacts.

This will ensure the proposed development as modified is appropriate for the site in terms of management of flooding.

- Carparking – assessed by BRS – 21st February 2019

Comment – The original proposal incorporated an increase in on-site parking numbers by 70 spaces to cater for the additional 59 villas (62 villas were originally proposed). This comprised a total of 140 spaces approved on-site, although this represented an accepted shortfall of 4 carspaces.

The intended modification reduces the approved development yield from 59 to 53 villas, which under Council's DCP requirements calculates to 133 spaces required for this development.

This modified masterplan includes a marginal reduction in on-site parking by 6 spaces. A total of 134 spaces are thereby available on site for the entire development, but with the reduced yield in villa numbers, this still represents a surplus of 1 carspace as per Council's DCP calculations.

The site's two existing driveways would continue to provide vehicular access to the development as approved previously. In that regard, the updated parking assessment determined that:

"The reduction in development yield would reduce the traffic generation and parking demand of the hotel component therefore further traffic and parking assessments are not deemed necessary."

- CPTED Assessment – assessed by BRS – 23rd January 2019

Comment – The original proposal was deemed satisfactory and in compliance with the accepted CPTED principles of surveillance, access control, territorial reinforcement and space / activity management.

The revised villa arrangement has not made any substantive changes to the ability to manage or achieve these principles. The updated CPTED assessment by BRS thereby concludes:

"Our assessment of the proposal in accordance with the CPTED principles confirms that the development can be managed to minimise the potential risk of crime and a re-design of the proposal is not required."

- Staging Plans – Architectural sheet-set – issue Sec 4.55 – 25/02/19

Comment – The modified layout and amended development footprint also introduces a modified staging strategy for the construction and release of the tourist accommodation villas. The staging plan provides for a more refined strategy for construction purposes, but has no appreciable impact on the necessary site & environmental management obligations for the development.

This staging is to be read in conjunction with the original civil works staging plan which formed the basis of the recent S.4.55 application, DA 2017.885.2. That original staging plan approved on 6th November had the effect of staging the western carpark (Stage 1), Civil works and services (Stage 2), and the villas/building works in the balance (Stage 3).

The proposed staging plan serves to stage the villas/building works, with the stages nominated as Stage 3-1, Stage 3-2, etc... accordingly. The staging plan is annexed to the architectural sheet-set of this S.4.55 application.

- Conditions of consent

Comment – As a consequence of the modified layout, staging strategy and amended development yield, it is suggested the following amendments would be applicable to the conditions of the original consent:

- A(1) to refer to the updated plans of development, specialist reports and staging strategy as per this S.4.55 application;
- A(12) to include the words “... *BioLink Ecological Consultants, dated March 2018, and as referenced in Biolink’s letter dated 18th February 2019* ...”
- A(13) to include the words “...*revision 2 dated February 2019* ...”
- A(14) to be deleted;
- A(15) *be amended to read: “(15) The consent only allows the removal of eight eleven koala food trees being those numbered 25, 26 (comprising a clump of 6 trees) and 44 as per the approved tree/removal retention plan”*
- B(5) to include the words “... *Payment to Council, prior to the issue of the Construction Certificate for respective stages within Stage 3...*”
- B(6) to include the words “... *Payment to Council, prior to the issue of the Construction Certificate for respective stages within Stage 3...*”
- B(27) to be amended to include the words “... *Detailed plans must be submitted to Council confirming that cabins 48, 49, 50, 51 and 52 have been provided with an upwardly grading egress route that is no lower than the 1:20 year flood level of 12.10m AHD...*”

No other conditions of the consent are anticipated to require amendment by the proposed modification request.

Conclusion

In support of our application made under S.4.55(2), we would stress that:

- The development as modified will remain substantially the same as the development assessed and approved by Council previously;

- There will be no change to the limit of works or the agreed environmental management obligations;
- The more compact and reduced unit yield has not altered the development footprint of the original development consent;
- The removal of units approved over the western carpark, and overall reduction in villa heights by an average of 100mm will have the effect of reducing any perceived visual impact of the approved development;
- The updated staging will still allow works to proceed in accordance with the principles of the original development consent;
- The updated VMP and KPOM serve to address the recommendations and findings of the relevant ecological assessments, and respond to the conditions of the original development consent.

If you have any queries, or require any further information, please do not hesitate to contact the undersigned.

Yours faithfully,



Andrew Lister
Town Planner

Encl *Revised architectural sheet-set & staging detail – issue Sec 4.55 – 25/0219*
Owner's consent for 14-20 Flynn St – Wyndham Vacation Resorts
Owner's authorisation to use 55 Pacific Drive
Walkway plan demonstrating egress via 55 Pacific Drive
Seven Part Tests – 19 February 2019
Biolink KPOM addendum – 18th February 2019
Vegetation Management Plan – February 19
Arboriculture Impact Assessment – 29th Jan 2019
Bushfire Assessment Report – 24th Jan 2019
Flood Modelling Assessment – Feb 2019
Parking assessment – 21 February 2019
CPTED assessment – 23 January 2019
S.4.55 Fees Quote













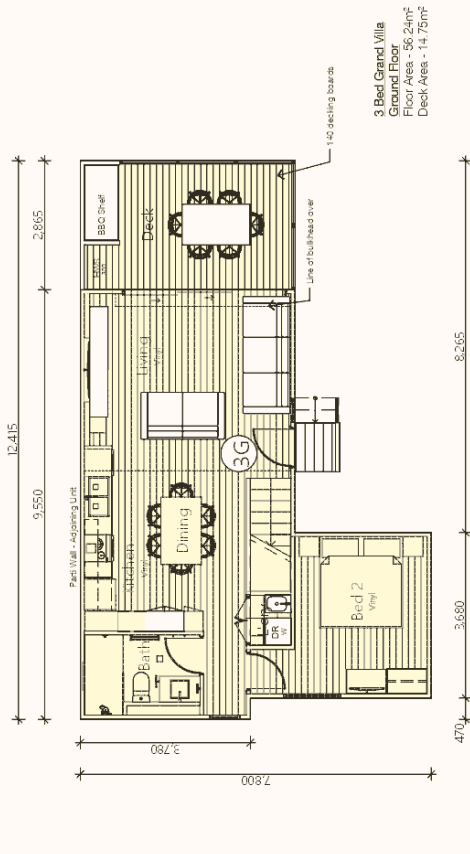




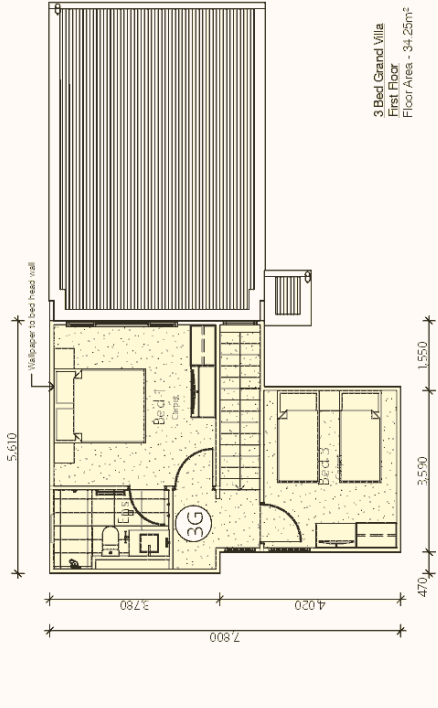
Villa 40 - 3 Bed Grand RHS Special

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Rev	Description	Date
A	Product Floor Plan	Dec 2016
B	Product Floor Plan	March 2017
C	Product Floor Plan	July 2017
D	Section 4.55 Application Issue	09/02/2019
E	Section 4.55 Application Issue	24/05/2019



1 Ground Floor Plan
1:100



2 First Floor Plan
1:100

MGA - Map Grid NSW (by survey)
TN - True (Solar) North



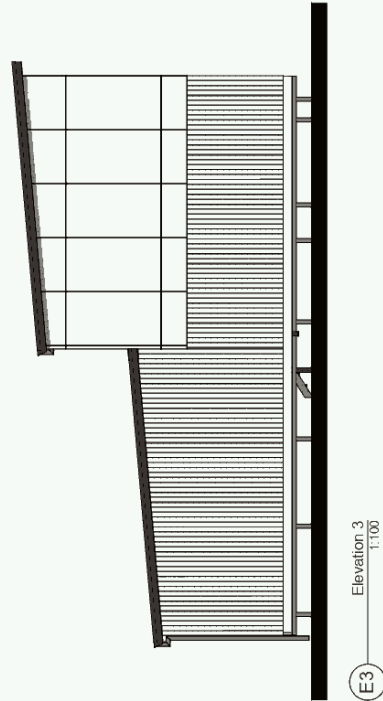
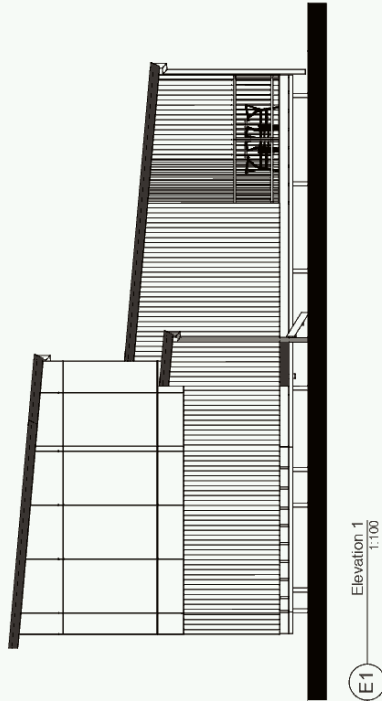
P.O. Box 471 East Gosford NSW 2250
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Registered Architect Andrew Dickson BAA (Arch Registration No. 2057)

Ramada Resort Flynns Beach
Proposed Suites
16-20 Flynn Street, Port Macquarie
3 Bed Grand Suite - Villa 40
Floor Plans
Scale: 1:100
Issue: Sec 4.55
Project: 1625
Plot Date: 24/05/2019
Drawn By: SUI
Issue: Sec 4.55
Project: 1625
Plot Date: 24/05/2019
D003

Villa 40 - 3 Bed Grand RHS Special

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Rev	Description	Date
A	Product Floor Plan	Dec 2016
B	Product Floor Plan	March 2017
C	Product Floor Plan	July 2017
D	Section 4.55 Application Issue	08/02/2019
E	Section 4.55 Application Issue	24/07/2019



MGA - Map Grid NSW (by survey)
TN - True (Solar) North

White + Dickson Architects.

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Registered Architect Andrew Dickson RAA (Arch Registration No 7857)

Ramada Resort Flynn's Beach

Proposed Suites

16-20 Flynn Street, Port Macquarie

3 Bed Grand Suite - Villa 40

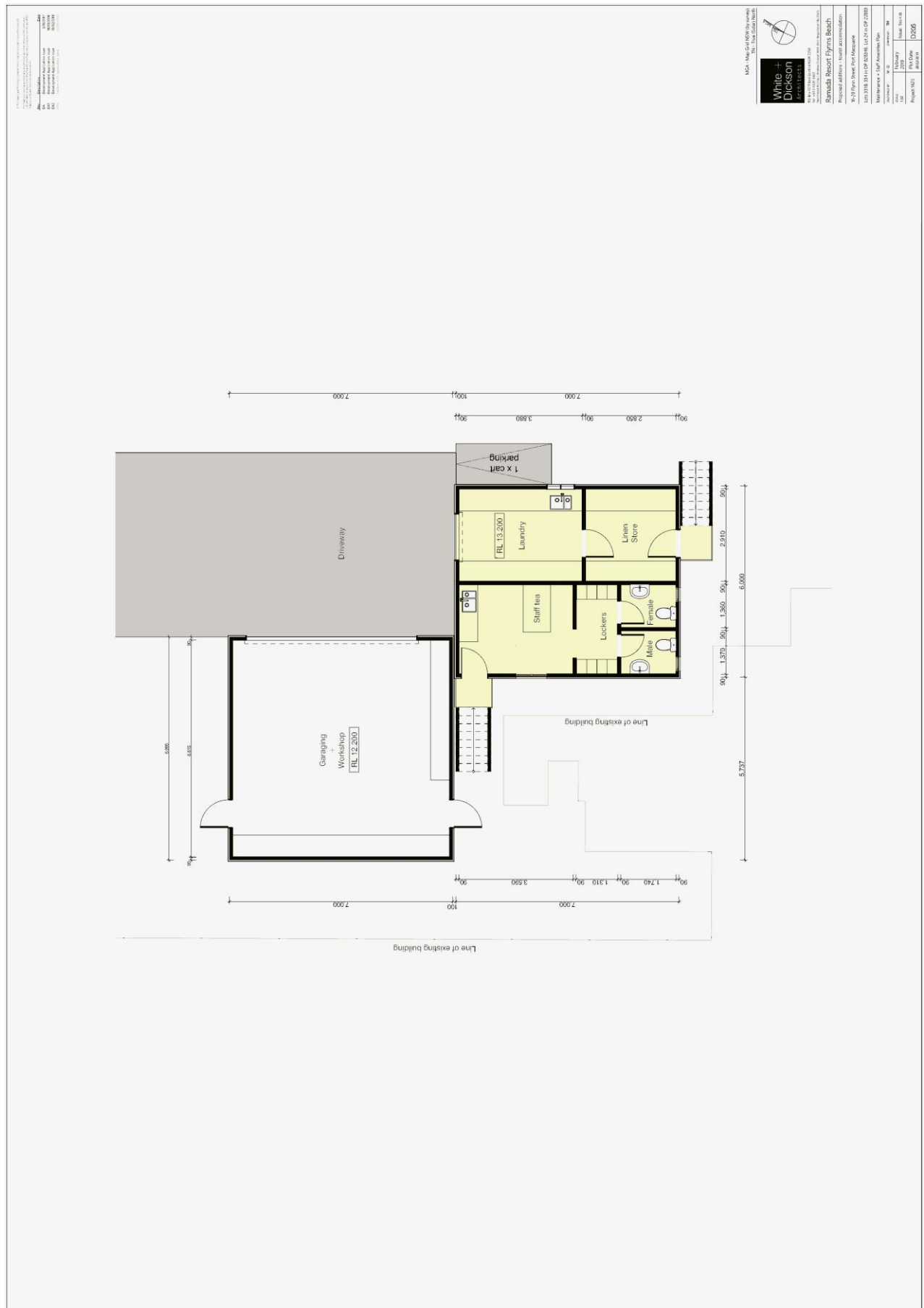
Elevations

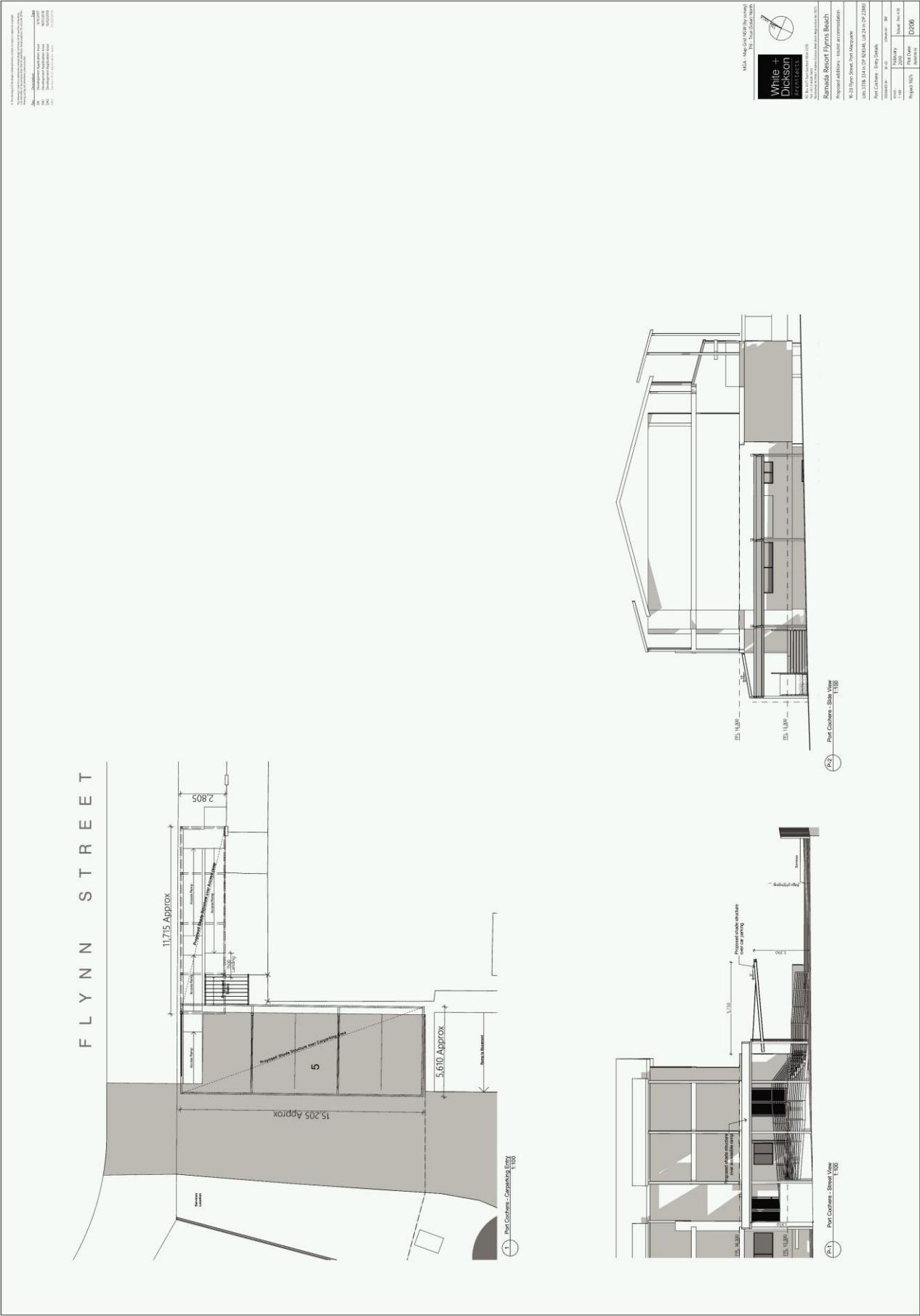
DESIGNED BY:	OTHER	DRAWN BY:	SM
SCALE:	1:100	DATE:	Feb 2019
PROJECT:	1625	ISSUE:	Sec 4.55
		PLAN DATE:	24/07/2019
			D006

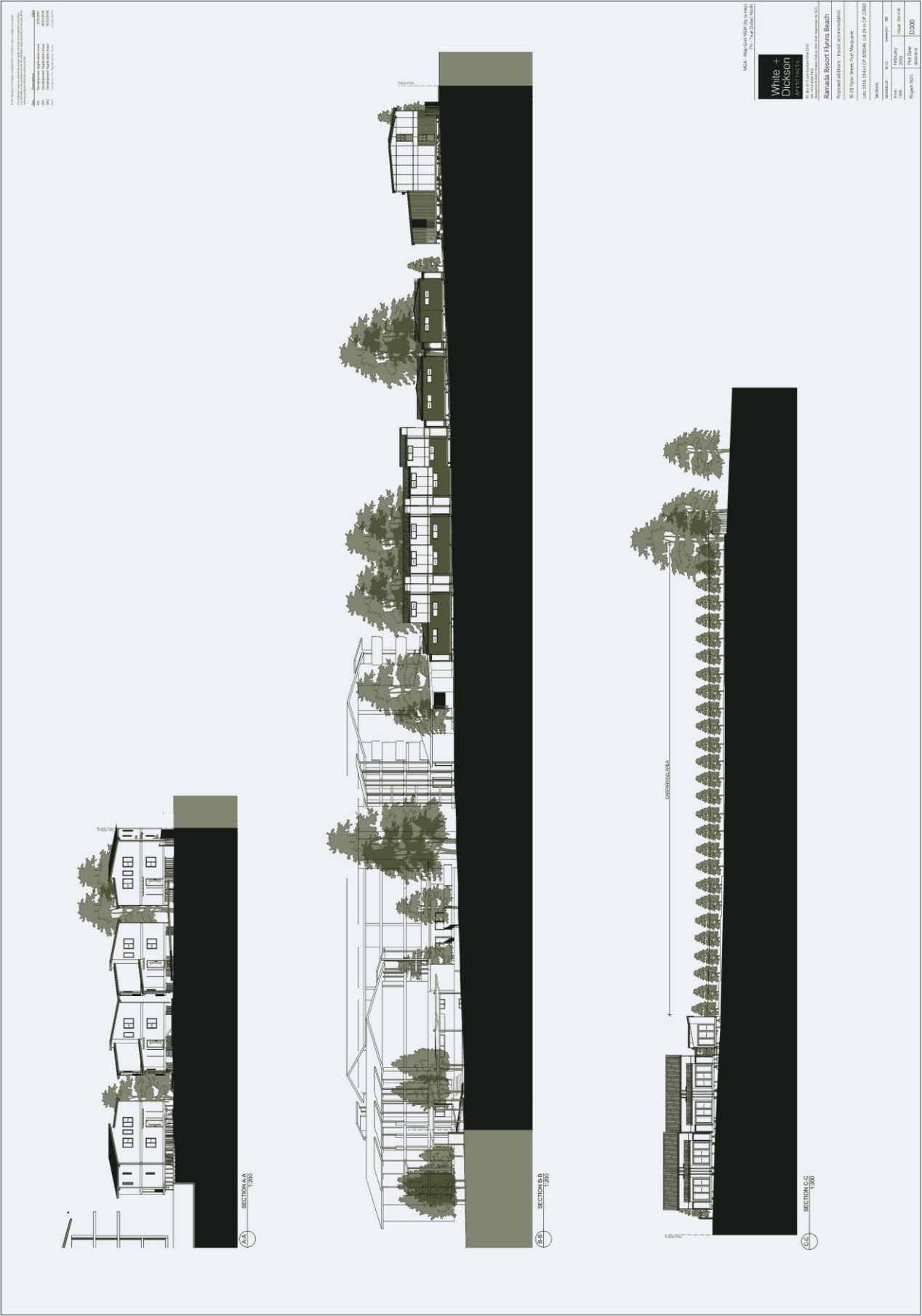




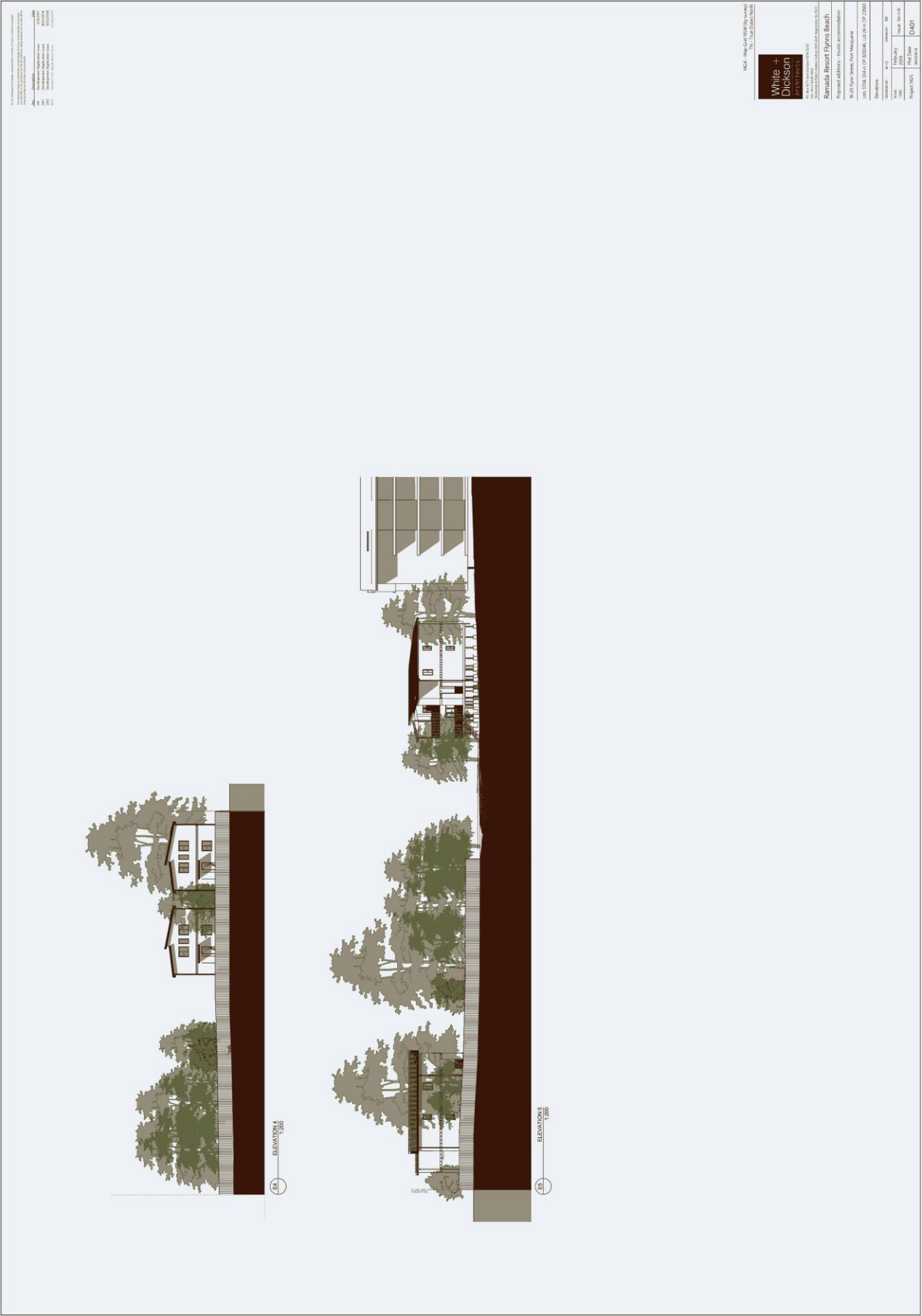




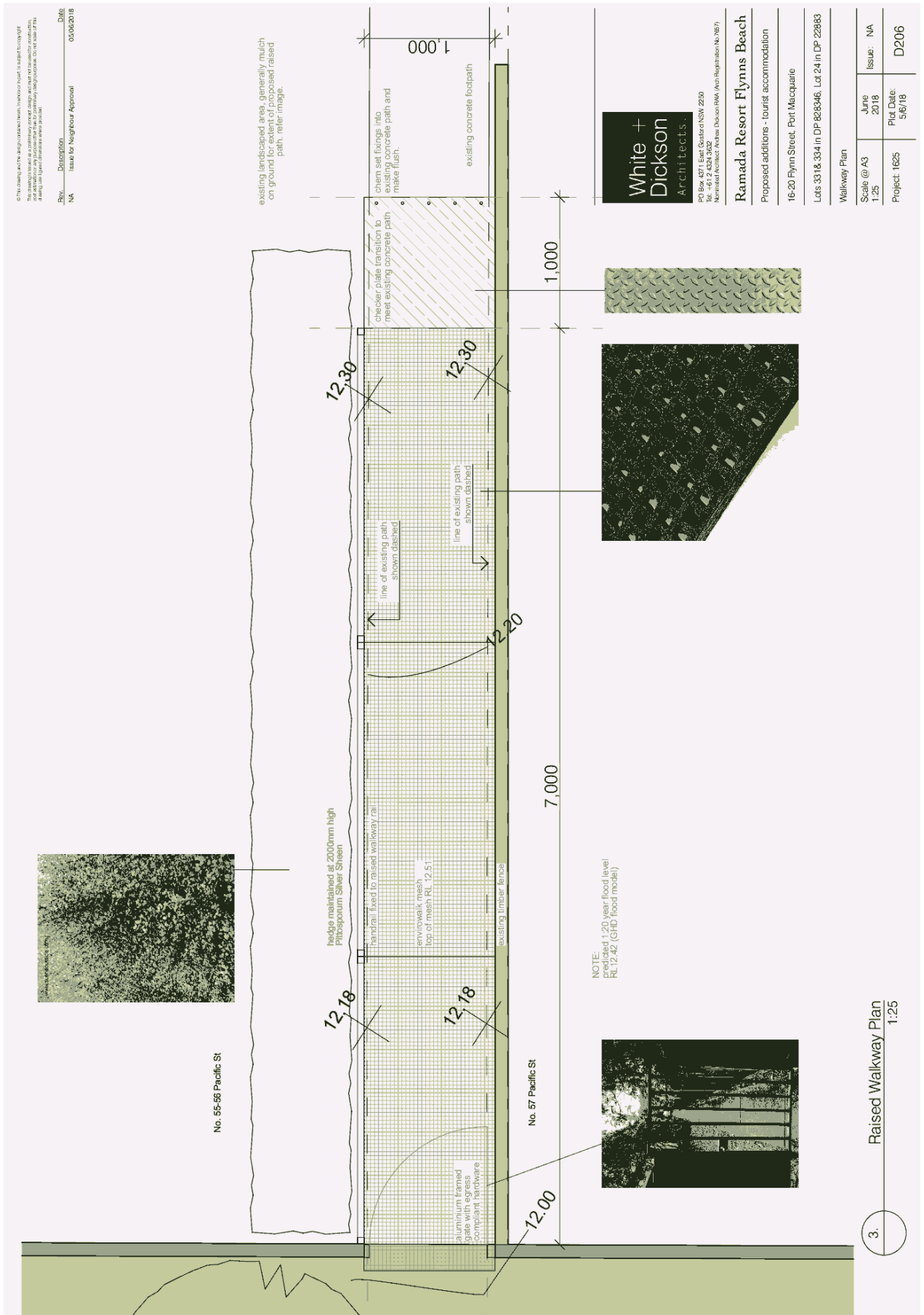












Developer Charges - Estimate

Applicants Name: White Dickson Architects
 Property Address: 14-20 Flynn Street, Port Macquarie
 Lot & Dp: Lot(s):331,DP(s):828346
 Development: Tourist and Visitor Accommodation (10 x 1 bedroom, 20 x 2 bedroom, 19 x 3 bedroom and 4 x 4 bedroom)



Water and Sewerage Headworks Levies are levied under S64 of the LGA Act & S306 of the Water Management Act 2000.
 Other contributions are levied under Section 94 of the Environmental Planning and Assessment Act and Council's S94 Contribution Plans.

Levy Area	Units	Cost	Estimate
1 Water Supply	30.2	\$10,120.00 Per ET	\$305,644.20
2 Sewerage Scheme Port Macquarie	43.87	\$3,840.00 Per ET	\$168,453.10
3 Since 1.7.04 - Major Roads - Port Macquarie - Per ET	39.5	\$7,586.00 Per ET	\$299,647.00
4 Since 1.7.04 - Open Space - Port Macquarie - Per ET	39.5	\$5,939.00 Per ET	\$234,590.50
5 Commenced 3 April 2006 - Com, Cul and Em Services CP - Port Macquarie	39.5	\$4,589.00 Per ET	\$181,265.50
6 Com 1.3.07 - Administration Building - All areas	39.5	\$903.00 Per ET	\$35,668.50
7 N/A			
8 N/A			
9 N/A			
10 N/A			
11 N/A			
12 N/A			
13 N/A			
14 N/A			
15 Admin General Levy - Applicable to Consents approved after 11/2/03	2.2% S94 Contribution		\$16,525.70
16			
17			
18			
Total Amount of Estimate (Not for Payment Purposes)			\$1,241,794.50

NOTES: These contribution rates apply to new development and should be used as a guide only.
 Contributions will be determined in conjunction with a Development Application (DA) or Complying Development Application (CDA).
 DAs will be subject to the contributions plans in force at the time of issue of the Consent and for CDCs at time of lodgement.
 Contribution Rates are adjusted quarterly in line with the CPI.

DATE OF ESTIMATE:

17-Jul-2019

Estimate Prepared By Ben Roberts

This is an ESTIMATE ONLY - NOT for Payment Purposes

ckson Architects, 14-20 Flynn Street, Port Macquarie, 17-Jul-2019.xls

PORT MACQUARIE-HASTINGS COUNCIL