

Sirsi Marina Pontoons Stormwater Report

Prepared for Essex Develop

June 2024
Project Number S22042



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Document Control				
Revision	Date	Prepared	Reviewed	Approved
A	21/12/2022	NH	SH	SH
B	26/06/2024	SM	SH	SH

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1. Introduction

1.1 Purpose of Report

BG&E have been engaged by Essex Develop to design the stormwater management system and prepare a stormwater report for the development at 122-128 Crescent Road, Newport.

This report will outline the approach BG&E has adopted to evaluate the following

- Existing stormwater management on site
- Proposed stormwater management on site
- Waterway Impact

1.2 Referenced Standards and Documentation

The following documents have been used as part of this report

- Pittwater 21 Development Control Plan 2004
- Northern Beaches Water Management for Development Policy (February 2021)
- Australian Rainfall and Runoff Guidelines (Geoscience Australia, 1987)

1.3 Development Controls

As the property is part of the Northern Beaches Council LGA, formerly the Pittwater Council LGA, development of the property is subject to the Pittwater 21 Development Control Plan Section B General Controls, Section 5 Water Management, Section B5.15 Stormwater and Section B5.13 Development on Waterfront Land. The objectives of stormwater management in the DCP are as follows:

- Improve the quality of water discharged to our natural areas to protect and improve the ecological and recreational condition of our beaches, waterways, riparian areas and bushland;
- Minimise the risk to public health and safety;
- Reduce the risk to life and property from any flooding and groundwater damage;
- Integrate Water Sensitive Urban Design measures in new developments to address stormwater and floodplain management issues, maximise liveability and reduce the impacts of climate change.
- Mimic natural stormwater flows by minimising impervious areas, reusing rainwater and stormwater and providing treatment measures that replicate the natural water cycle
- Reduce the consumption of potable water by encouraging water efficiency, the reuse of water and use of alternative water sources
- Protect Council's stormwater drainage assets during development works and to ensure Council's drainage rights are not compromised by development activities.
- Protection of waterways and improved riparian health
- Stormwater and Creek Flows are Safely Managed
- Appropriate setback between waterways and developments



2. Site Context

2.1 Location

The site is located on 122-128 Crescent Road, Newport within the Northern Beaches Council LGA. As shown in the locality plan in **Figure 1**, the site is bordered to the north by a public reserve known as 'The Avenue', to the east by Crescent Road, and to the west by the Pittwater Waterway. The site is zoned as C4 environmental living and is part of a low density residential neighbourhood.



Figure 1 Site Locality Plan (Nearmap, 12/03/2024)

2.2 Existing Site Information and Description

The site currently consists of forty-six (46) existing piles and pontoons. There is a large concrete slab at the back of the site and there are three pontoons extending into Pittwater Waterway.

The site has an area of 937.3sqm and is approximately 100% impervious. Stormwater on site is overland flows directly to Pittwater Waterway. From a review of the survey by Boxall dated 16/02/2022, the site grades at approximately 1% towards Pittwater Waterway.

3. Proposed Development

The proposed development consists of the removal of forty-six (46) existing piles and pontoons, construction of new twenty (20) piles and pontoons consisting of a modern concrete, steel and plastic engineered solution.

3.1 Proposed Drainage Design

The proposed development of the pontoons and foreshore works involves installing landscaping finishes onto the existing concrete wall. The existing scenario has the stormwater naturally flowing into Pittwater, and the proposed stormwater management does not propose any change to this due to its proximity to Pittwater. The majority of the development is in Pittwater and thus would require no stormwater management as it's above the water body. Where any stormwater that lands on the development will run off into the Lake.

3.2 Waterway Impact

The new development is proposed to be above the high watermark line to be in line with council setback requirements to limit the impact on Pittwater during and after construction. The Site does not have any natural water courses, and the existing seawall is expected to remain in good condition and not degraded. All of the subdivision stormwater is being managed through the pit and pipe network that discharges through the existing headwall.



4. Conclusion

BG&E have been engaged by Essex Develop to design the stormwater management system and prepare a stormwater report for the development at 122-128 Crescent Road, Newport.

This report will outline the approach BG&E has adopted to evaluate the following

- Existing stormwater management on site
- Proposed stormwater management on site
- Waterway Impact

As outlined in this report, the following key items have been identified:

- The proposed stormwater on site will discharge directly into Pittwater Waterway
- The development also meets the requirements of the Councils Section B5.13 Development on Waterfront Land.



Appendices



Appendix A – Water Impact Statement



8 November 2022

Marco Silva
Senior Development Manager
Essex Develop
Suite 14, 26-32 Pirrama Rd, Upper Deck
Pyrmont NSW 2009 Australia

Email: marco@essexdevelop.com.au

Document Number S22042-LT-0001

Dear Marco

Re: Water Impact Statement Marina DA

BG&E has prepared the following Water Impact Statement to fill the requirements for all developments potentially impacting on Waterfront Land (as defined in the Water Management Act 2000, but does not apply to Warriewood Valley Land Release Area) a Waterway Impact Statement to demonstrate compliance with cl. B5.13 of the Pittwater 21 Development Control Plan for the development at 122-128 Crescent Rd, 55-57 The Avenue, Newport (Site).

The proposed development involves:

- The removal of forty-six (46) existing piles and pontoons,
- Construction of new twenty (20) piles and pontoons consisting of a modern concrete, steel and plastic engineered solution.
- Works to be compliant with all relevant Australian Standard and environmental construction requirements.

The Site needs to comply with the following as outlined in Council's DCP:

- Protect Council's stormwater drainage assets during development works and ensure development activities do not compromise Council's drainage rights.
- Protection of waterways and improved riparian health
- Stormwater and Creek Flows are Safely Managed
- Appropriate setback between waterways and developments

The proposed developments meet the above requirements through the following:

- The new development is proposed to be installed in accordance with Australian Standard and environmental construction requirements.
- There is no impact on any proposed or existing stormwater infrastructure

- The Site does not have any natural water courses, and the existing seawall is expected to remain in good condition and not degraded.

BG&E is confident that the above design considerations will minimise potential impacts on the nearby waterways.

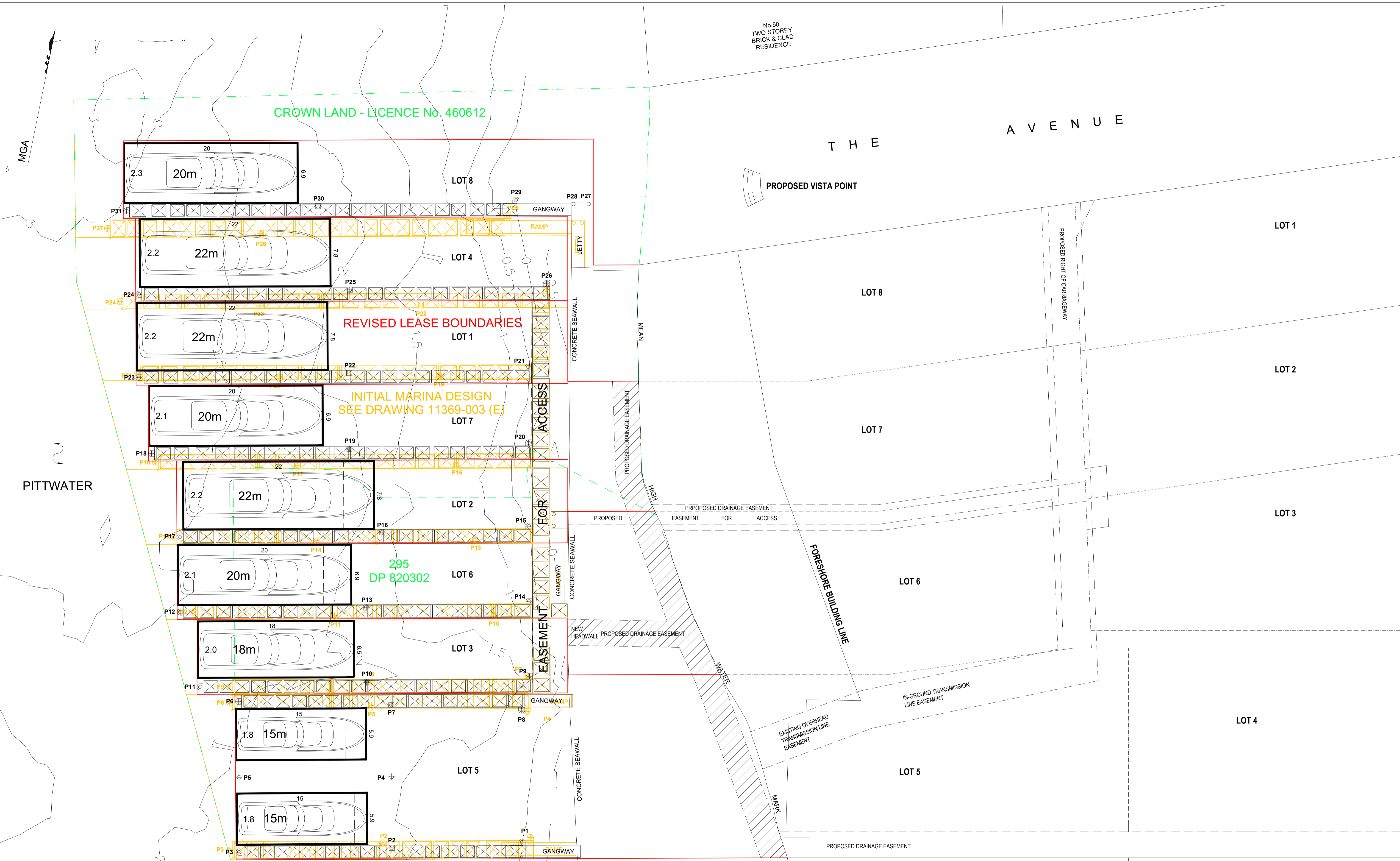
Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Stephen Hazlewood'.

Stephen Hazlewood
Urban Civil Lead

Appendix B - Landscape Architectural Drawings





- NOTES:**
1. Contour interval generated using sounding dataset at 0.5m intervals.
 2. This plan has been prepared at the scale shown for the plot size stated and should be reproduced at that plot size when assessing data.
 3. Due to environmental factors, bathymetry and contacts are valid at the time of survey only.
 4. This plan should not be relied upon for any other purpose or used by any party outside of the project remit as the plan may not contain sufficient information for that purpose or use.
 5. Proposed pile locations and number are indicative only. Final pile specifications by approved engineering plans.
 6. Berths are bow in only.

LEGEND

PRINT IN COLOUR

LOT AND DP: LOTS 2&3 IN DP 210342 LOT 1 IN DP 503390 LOT 21 IN DP545339 LOTS 111&112 IN DP 556902 LOT 295 IN DP 820302	CLIENT: ESSEX DEVELOP ADDRESS: 122-128 CRESCENT ROAD, NEWPORT	boxall <small>Utility limited by a scheme approved under Professional Standards Legislation PO Box 519 Sutherland NSW 1459 Suite 649-51 Elton Street 02 9521 5737 www.boxallsurveyors.com.au ACN 114 644 058</small>	TITLE: PLAN OF PROPOSED MARINA OVERLAY	ORIGIN LEVELS: SSM43648 RL 19.333 AHD AZIMUTH: MGA20 DATUM: CHART SURVEY: SM DATE: 24.03.2023 DRAWN: SL DATE: 01.05.2024 APPROVED: SL DATE: 01.05.2024 SCALE: 1:200 SHEET 1 OF 1 DRAWING No: 11369-013 REV: - SIZE: A1
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22 DP 553811 No.120 1&2 STOREY RENDERED RESIDENCE No.118 1&2 STOREY RENDERED RESIDENCE 21 DP 553811

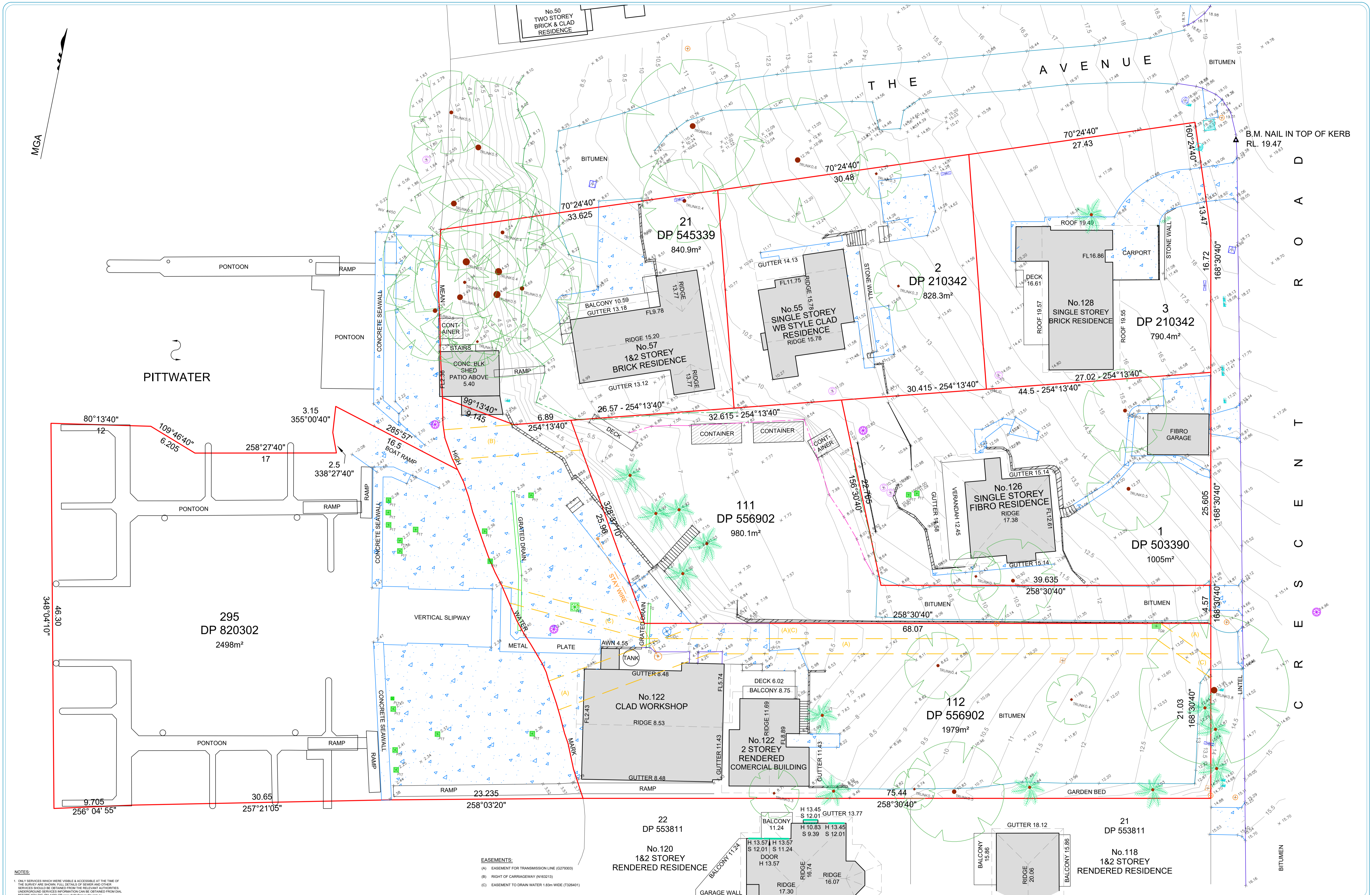
Appendix C - Survey



MGA

THE AVENUE

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NOTES:

- ONLY SERVICES WHICH WERE VISIBLE & ACCESSIBLE AT THE TIME OF THE SURVEY ARE SHOWN. FULL DETAILS OF SERVICES AND OTHER SERVICES SHOULD BE OBTAINED FROM THE RELEVANT AUTHORITIES. UNDERGROUND SERVICES INFORMATION CAN BE OBTAINED FROM DIAL BEFORE YOU DIG (PH 1100) OR www.dialbeforeyoudig.com.au
- CONTOURS ARE APPROXIMATE ONLY. PREFERENCE TO BE GIVEN TO SPOT HEIGHTS.
- MAJOR TREES SHOWN ONLY.
- DIMENSIONS AND AREA ARE SUBJECT TO SURVEY.
- PROJECT CO-ORDINATES ARE MSA2020 (ZONES)
- THIS PLAN HAS BEEN PREPARED FOR THE SOLE PURPOSE OF LOCATING A DEVELOPMENT APPLICATION WITH THE LOCAL COUNCIL. THIS PLAN IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS PERMISSION OF BOXALL SURVEYORS PTY LTD.

Detail Survey Certificate

I, Shawn LeClerc BEng (Geo) MSc of Boxall Surveyors, a surveyor registered under the Surveying and Spatial Information Act 2002, certify that the survey represented in this plan was made in accordance with Clause 10 of the Surveying and Spatial Information Regulation 2002 with regard to the location of the boundaries shown on this plan.

Signature: *[Signature]* Dated: 16-Feb-22

Surveyor Identification No: 115
 Surveyor registered under the Surveying and Spatial Information Act 2002

PRINT IN COLOUR

EASEMENTS:

(A) EASEMENT FOR TRANSMISSION LINE (G279003)
 (B) RIGHT OF CARRIAGEWAY (N162313)
 (C) EASEMENT TO DRAIN WATER 1.83m HIGH (T264401)

LEGEND:

LOT AND DP:
 LOTS 2&3 IN DP 210342
 LOT 1 IN DP 503390
 LOT 21 IN DP 545339
 LOTS 11&112 IN DP 556902
 LOT 295 IN DP 820302

CLIENT:
 VERONA CO.
 ADDRESS:
 122-128 CRESCENT ROAD,
 NEWPORT

boxall

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TITLE: PLAN OF SITE DETAIL AND LEVELS

REV	DATE	REVISION DETAILS

ORIGIN LEVELS: SSM43648	RL 19.333
AZIMUTH: MGA20	DATUM: AHD
SURVEY: LC	DATE: 04.02.2022
DRAWN: LC	DATE: 16.02.2022
APPROVED: SL	DATE: 16.02.2022
SCALE: 1:200	SHEET 1 OF 2
DRAWING NO: 11369-001	REV: ---
	SIZE: A1

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We collaborate with leading contractors, developers, architects, planners, financiers and government agencies, to create projects for today and future generations.

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