

Engineering Referral Response

Application Number:	DA2023/0541
Proposed Development:	Construction of two dwelling houses including pools.
Date:	10/11/2023
To:	Claire Ryan
Land to be developed (Address):	Lot 4 DP 30205 , 50 Condoover Street NORTH BALGOWLAH NSW 2093

Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m² or
- Alterations to existing or new driveways or
- Where proposals affect or are adjacent to Council drainage infrastructure incl. watercourses and drainage channels or
- Torrens, Stratum and Community Title Subdivisions or
- All new Commercial and Industrial and RFB Development with the exception of signage or
- Works/uses in flood affected areas

And as such, Council's development engineers are required to consider the likely impacts on drainage regimes.

Officer comments

A. Stormwater Plans by Stellen Consulting dated 03.05.2023

- The proposed proprietary Aquacomb pods and Atlantis Cells are not supported for detention purposes due to maintenance, accessibility and inspection shortcomings. It is suggested that a cast in-situ reinforced concrete design be shown on amended plans. Council supports their use for retention of rainwater.
- On "Site Areas" sheet confirm what dark Pink shading represents.
- Provide individual OSD design for each lot with levels. Provide outlet orifice size.
- Confirm if an easement for draining stormwater is proposed or if the Community Lot will be utilised for the purpose of stormwater drainage.

B. Driveway Plans by Stellen Consulting dated 04.05.2023

- AS289.1:2004, Section 2.6.2 states that the maximum gradient of a domestic driveway shall be 1 in 4 (25%). The Standard notes that in difficult sites this may not be practical whilst also noting that the design needs to be safe and environmentally sustainable. A preliminary check by Council indicates that lowering the garage levels by approximately 400mm will bring the maximum driveway gradient down to 25%. Given that the work is on a greenfield site, the applicant is asked to lower the garage level or provide an alternate design that is compliant with Australian Standards and Council requirements.

C. Subdivision Certificate

- (i) It is noted that the requirements of the Parent DA, which produced two residential lots and a Community title lot have not been satisfied. These requirements will be noted in Deferred Commencement conditions should the above matters listed in points A and B be addressed to Councils satisfaction.
- (ii) It is noted that the Court in its judgement gave permission for a Community Title lot to be utilised for the purpose of a drainage easement rather than for community benefit. Amended plans should not refer to drainage easements unless one is proposed with this application.

Engineering Comments 10.11.23

1. The water level and overflow level in the on-site detention system for Lot 1 is above the habitable floor levels of dwellings on Lot 2. Amended stormwater plans need to provide an overland flow path through the Community titled land (or another appropriate path) to safely convey flows from Lot 1 for all events up to the 1% AEP storm. Assume 100% pipe blockage and provide a minimum 300 mm freeboard. Provide a 1D HEC-RAS model to Council for perusal.
2. Provide habitable floor levels on amended plans. The water level and overflow level in the on-site detention system is to be a minimum of 300 mm below habitable floor levels and 150 mm below garage levels.
3. The on-site detention volume for Lot 2 appears to be deficient. Provide method of sizing tank that is in compliance with Section 9.3.2 of the Water Management for Development Policy.
4. Drawing No. P170945-DR-SW-005 rev 2
 - (i) Detail 4. Provide levels for floor of on-site detention tank that show an absolute minimum slope of 0.5% in all directions.
 - (ii) Detail 4. The emergency overflow weir appears undersized. Provide a weir capacity analysis assuming full blockage of orifice and 75% blockage of weir for the 1% AEP storm.
 - (iii) Detail 4. Provide additional access openings to OSD tank in accordance with Section 9.10.3 and Appendix 15 of the Water Management for Development Policy.
 - (iv) Detail 5. Provide levels for floor of on-site detention tank that show an absolute minimum slope of 0.5% in all directions.

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Engineering Conditions:

Nil.