

10 April 2025

RE: Stormwater Design Statement –18 Yamba Street, Hawks Nest

Dear Sir/Madam,

NY Civil Engineering has prepared the DA stormwater management plans for the proposed dual occupancy at 18 Yamba Street, Hawks Nest, the design methodology is in line with Mid Coast Council's DCP requirements.

The total site area is 1014.7m² and to satisfy council requirements OSD has been provided proportionally to each dwelling's site area to limit the post development discharge to predeveloped state in any storm event up to and including the 1% AEP. Dwelling A is 411.3m² and 2.3m³ of OSD has been proposed. Dwelling B is 603.4m² and 4.6m³ of OSD has been proposed. In addition, rainwater reuse tanks have been provided for each dwelling, capturing 100% of the roof area to support improved water quality outcomes.

In lieu of standard raingarden treatment, an infiltration system has been utilised to achieve both water quality targets and suitable site discharge, as a high infiltration rate was found on site during geotechnical investigation. 90 Atlantis Cells have been provided for Dwelling A and 147 Atlantis Cells for Dwelling B. Using MUSIC modelling demonstrating pollutant reduction targets have been achieved is reflected in Appendix A. The infiltration rate as per geotechnical report is provided in Appendix B.

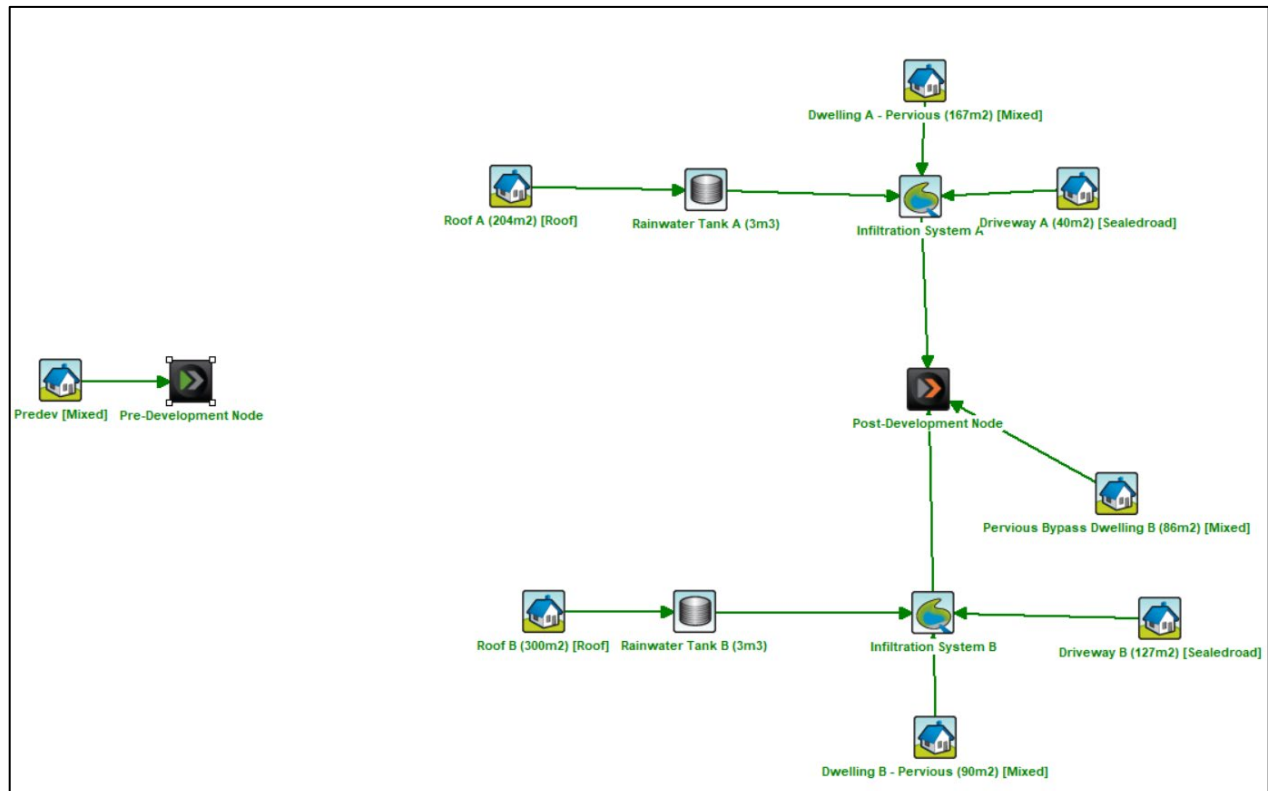
I trust this is sufficient information to proceed with the Stormwater engineering assessment.

If you have further questions, please do not hesitate to contact the undersigned.

Full Name of Designer: Nader Zaki
Qualifications: **BE(Civil) MIEAust CPEng NER**
Name of Employer: NY CIVIL ENGINEERING PTY LTD
Signature:



APPENDIX A – MUSIC MODELLING RESULTS



Treatment Train Effectiveness - Pre-Development Node

	Sources		Residual Load		% Reduction	
	Pre	Post	Pre	Post	Pre	Post
Flow (ML/yr)	0.298	0.784	0.298	0.0265	0	96.6
Total Suspended Solids (kg/yr)	23.7	82.4	23.7	2.08	0	97.5
Total Phosphorus (kg/yr)	0.0765	0.205	0.0765	0.00668	0	96.7
Total Nitrogen (kg/yr)	0.713	1.79	0.713	0.0641	0	96.4
Gross Pollutants (kg/yr)	0	18.3	0	0	0	100

☒ Include Post-Development



APPENDIX B – GEOTECHNICAL REPORT



Date

25 March 2025

Revision

A

Masterton Homes
Sappho Road
WARWICK FARM NSW 2170

Our Ref AWT 81058
Your Ref 2019267

Soil Permeability as per AS1547-2012

Lot 85, No 18 Yamba Street Hawks Nest NSW

Soil category & Structure : Gravels and Sands

Indicative Permeability: $K_{sat} > 3.0 \text{ m/d}$

Observed Permeability: $K_{sat} > 5 \text{ m/d}$ or 0.4 l/s/m^2

Please find attached the results of the Soil Permeability test, log sections and site sketch, undertaken at the above address.

Providing the system is designed by a suitably qualified person for the recommended design K_{sat} , above, and the system is located a minimum setback distance of 1.5m from any adjacent property boundary and infrastructure, we do not see any reason why this proposal should not proceed to construction.

Although no water table was encountered during our testing, a perched water table or water seepage can occur during or after wet periods, generally where a porous layer overlies less porous strata.

If you have any queries, please do not hesitate to contact the writer.

Yours faithfully

AW Geotechnics



Jason Bau
MIE Aus, NER, RPEQ