

## Engineering Referral Response

<b>Application Number:</b>	DA2021/1166
<b>Date:</b>	15/09/2021
<b>To:</b>	Adam Mitchell
<b>Land to be developed (Address):</b>	Lot 12 DP 111254 , 142 Ocean Street NARRABEEN NSW 2101

### Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m<sup>2</sup> 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

The stormwater management plan has been reviewed and whilst on site absorption is supported given the underlying geology the following additional information is required in accordance with appendix 3 of Councils water management policy for development.

A consulting geotechnical engineer must submit a geotechnical report providing the following details (where applicable) for the proposed location of the absorption/dispersal trench:

- i) Depth to rock
- ii) Depth to the water table
- iii) Measured infiltration rate (in litres/square metres/second)
- iv) Infiltration rate that can be maintained in the long term
- v) Minimum distance any infiltration system should be located clear of property boundaries
- vi) Whether the use of infiltration is likely to cause seepage problems to the proposed structure or to any adjoining properties

. The above information must be submitted to Council to determine whether any absorption system is permitted for the site. The absorption pit is to be designed for a 2% AEP storm using DRAINS computer software based on the infiltration rate that can be maintained in the long term. An overflow mechanism in the form of a level spreader must be provided for all storms greater than the 2% AEP storm, up to and including the 1% AEP storm. The overflow mechanism is required to minimise overland impacts on adjoining properties.

The roof guttering and downpipe system should be designed to collect the 2% AEP design rainfall and

pipe it to the absorption system, or alternatively provide for surface collection of guttering overflows into the absorption system. Drainage calculations must be submitted with the plans. Where a high water table is encountered and a gravel filled trench design is proposed, the base of the trench should be at least 500mm above the water table to accommodate fluctuations of the groundwater. When considering available storage volumes for the storage design methods, a maximum of 20% voids in the base aggregate may be used. The absorption pit should not be located within three metres of the side or rear boundary, or three metres from any on-site building or neighbouring buildings.

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.