

Engineering Referral Response

Application Number:	DA2019/0023
To:	Julie Edwards
Land to be developed (Address):	Lot 2 DP 28206 , 10 Talgara Place BEACON HILL NSW 2100

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

Comments for Development Engineers:

1. The existing crossing is to be demolished and a new crossing is to be constructed in accordance with Council's A4 3330/7 ML Profile.

Development Engineers have reviewed the proposal and cannot support the proposal due to the following reasons.

1. To determine if the subject property is burdened by overland flows surcharging from a Council drainage stormwater system or if it is located in a sag, a Civil Engineer should be engaged to investigate and verify whether the subject property is affected by an overland flows during a 1 in 100 ARI storm event. The study shall include:

1. The applicant is to submit a hydraulic report and model like HEC-RAS showing the 100 Year Average Recurrence Interval (ARI) stormwater flow over the subject site, prepared by a Chartered Professional Civil Engineer of Engineers Australia. All calculations are to be carried out in accordance with the guidelines provided in "Australian Rainfall and Run Off", a publication of the Institution of Engineers, Australia. All levels are to be shown in Australian Height Datum (AHD). It is to be noted that no development is permitted over Council's drainage system which includes the established 1 in 100 ARI storm water overland flow path for the subject site. The flood study must be taken upstream and downstream beyond the subject site (at least 15-20 metres from the common boundaries affected by the overland flow).

2. The 100 year ARI flood flow level must be established in AHD for the proposed future floor levels and basement entry levels which shall be a minimum of 500 mm above the 100 year flood

level. This is to ensure that the proposed future dwellings and basement car parking areas are protected in major storm events.

3. A overland flow study is required to determine the 1 in 100 year ARI water level in the easement/ open channel adjacent to the development site. The site is adjacent to a sag pit that may carry a substantial amount of upstream stormwater. Cross sections detailing the 1 in 100 year ARI water surface level are to be provided at appropriate intervals.

The flood levels of the receiving water must be indicated on the drainage layout plan (if applicable). Water surface profiles are to be detailed for the existing and proposed conditions for the development site as well as both upstream and downstream of the development site. The Hec-Ras computer program is preferred for this application.

The proposed development must comply with all requirements of Council's Section 9.3, Overland Flow of Council's PL 850 Water : Water Management Policy. Runoff from the developed site must not cause a detrimental effect on any property. This may require the retention (and possible expansion) of existing surface flow paths.

2. Council's records indicate that the subject property is burdened by a Council stormwater pipeline. As outlined in the Development Application Checklist, the applicant is required to demonstrate compliance with Council's Policy PAS-PL 130 Building Over or Adjacent to Constructed Drainage Systems and Easements Technical Specification. In particular, the location and dimension of Council's stormwater pipeline is not shown on the plans.

This consists of accurately locating, confirming dimensions and plotting Council's stormwater pipelines and associated infrastructure to scale on the DA plans which show the proposed works. This should be carried out by a service locating contractor and registered surveyor. (The applicant will need to provide evidence of methodology used for locating).

Northern Beaches Council has public stormwater drainage maps online. Please follow the relevant link below and select the 'Stormwater' map from the 'No Overlay Map' drop down menu. You can then search by address and use the zoom functionality to see pipe diameters and asset id numbers.
<https://services.northernbeaches.nsw.gov.au/icongis/index.html>

THIS INFORMATION IS PROVIDED UNDER THE FOLLOWING CONDITIONS.

The information shown on the stormwater drainage map is indicative only and outlines the approximate locations of Council-owned stormwater infrastructure according to Council's records.

- All structures are to be located clear of any Warringah Council pipeline or easement. Footings of any structure adjacent to an easement or pipeline are to be designed in accordance with the above-mentioned policy. Structural details prepared by a suitably qualified Civil Engineer demonstrating compliance with Council's policy are to be submitted.
- Should the applicant be proposing to relocate, upgrade or remove this infrastructure, details should be provided.

3. The proposed vehicle crossing cannot be approved as the edge of the vehicle crossing must be located at least 1m away from the stormwater lintel in front of the property.

Not supported for approval due to lack of information to address:

- Council's stormwater pipeline clearance in accordance with Clause C6 of Warringah DCP.
- Flood protection in accordance with Clause C4 of Warringah DCP.

Referral Body Recommendation

Recommended for refusal

Refusal comments

Recommended Engineering Conditions:

Nil.